Доц. дхн Живко Желев

Списък на забелязаните цитирания след конкурса за доцент (01/2012-09/2017; без изчерпване)

Общ брой на забелязаните цитирания: 853, описани в 70 страници.
Общ брой цитирани статии: 57
Автоцитиранията са изключени!

Забележка: При искане от страна на рецензентите, към настоящия списък могат да бъдат предоставени допълнително:
(А) Копия от списъците на цитираните статии, открити с уеб-търсачките Google Scholar, Web-of-Science, Science Direct, ACS Citation Search, Elsevier, Scopus.
(Б) Копия от статии, в които са забелязани цитирания и които не фигурират в отбелязаните по-горе уеб-търсачки.

Моля рецензентите да ме извинят за евентуални печатни грешки при изписването на имената на авторите.

Zhelev Z., R. Bakalova, H. Ohba, and Y. Baba. – Quantum dot-based nanobiohybrids for fluorescent detection of molecular and cellular biological targets, In: "Nanotechnologies for the Life Sciences", Vol. 8 ("Nanomaterials for Biosensors"), Ed. C. Kumar, Wiley-VCH, 2007, 175-207.

1. Banica F-G. – Chapter 20. Nanomaterial applications in optical transduction, In: "Chemical Sensors and Biosensors: Fundamentals and Applications", John Wiley & Sons, 2012, DOI: 10.1002/9781118354162.ch20.
2. Chaniotakis N., and R. Buiculescu. – Chapter 11: Semiconductor quantum dots in chemical sensors and biosensors, In: "Nanosensors for Chemical and Biological Applications: Sensing with Nanotubes…", Woodhead Publ. Ltd., 2014, p. 267.
3. Mohammadi M., M. Ramezani, K. Abnous, and M. Alibolandi. – Biocompatible polymersomes-based cancer theranostics: Towards multifunctional nanomedicine, Int. J. Pharmaceutics, 2017, **519**(1-2), 287-303.
4. Vinayaka, A. – Studies on bioconjugation of CdTe quantum dot for monitoring enterotoxin B producing Staphylococcus aureus, PhD Thesis, University of Mysore, 2016 (please, see Google Scholar).

Kagan V., R. Bakalova, Z. Zhelev, D. Rangelova, E. Serbinova, V. Tyurin, N. Denisova, and L. Packer. – Intermembrane transfer and antioxidant action of alpha-tocopherol in liposomes, Arch. Biochem. Biophys., 1990, 280(1), 147-152.

5. Atrooz O.M. – Formation of highly antioxidative liposomes from crude acetone extracts of Canna indica, Cucumis melo and Prunus armeniaca, Asian J. Biochem., 2012, **7**(4), 218-225.
6. Bartesaghi S., D. Herrera, D.M. Martinez, A. Petruk, V. Demicheli, M. Trujillo, M.A. Marti, D.A. Estrin, and R. Radi. – Tyrosine oxidation and nitration in transmembrane peptides is connected to lipid peroxidation, Arch. Biochem. Biophys., 2017, **622**, 9-25.
7. Colpo, Lucineia Puiatti. – Avaliação da capacidade antioxidante e conteúdo de compostos fenólicos de frutas vermelhas submetidas a processamentos por calor (micro-ondas, sous vide, fervura e desidratação, Sao Leopoldo University, PhD Thesis, 2015 (please, see Google Scholar).
8. Corace G., C. Angeloni, M. Malaguti, S. Hrelia, P.C. Stein, M. Brandl, R. Gotti, and B. Luppi. – Multifunctional liposomes for nasal delivery of the anti-Alzheimer drug tacrine hydrochloride, J. Liposome Res., 2014, **24**(4).

Bakalova R., Goudev A., Z. Zhelev, and C. Nachev. – Oxidative modifications of blood serum in humans with coronary artery diseases, Acta Physiol. Pharmacol. Bulg., 1995, 21(4), 81-85.

9. Onur S., P. Niklowitz, A. Fischer, G. Jacobs, W. Lieb, M. Laudes, T. Menke, and F. Doring. – Determination of the coenzyme Q10 status in a large Caucasian study population, BioFactors, 2015, **41**(4), 211-221.

Zhelev Z., and R. Bakalova. – Laser-doppler imaging of activation-flow coupling in the somatosensory cortex: Normalization of signal when the baseline changes significantly, Methods Find Exp Clin Pharmacol, 2002, 24(9), 559.

10. Saillet S, P.P. Quilichini, A. Ghestem, B. Giusiano, A.I. Ivanov, S. Hitziger, I. Vanzetta, C. Bernard, and C-G. Benar. – Interneurons contribute to the hemodynamic/metabolic response to elileptiform discharges, J. Neurophysiol., 2016, **115**(3), 1157-1169.

Kubo T., Z. Zhelev, R. Bakalova, and H. Ohba. – Enhancement of gene silencing potency and nuclease stability by chemically modified duplex RNA, Nucleic Acids Symposium Ser. (Oxf.), 2004, 51, 407-408.

11. Kim K.W., Y. Shin, A.P. Perera, Q. Liu, J.S. Kee, K. Han, Y. Yoon, and M.K. Park. – Label-free, PCR-free chip-based detection of telomerase activity in bladder cancer cells, Biosensors & Bioelectronics, 2013, **45**, 152-157.

Zhelev Z., H. Ohba, R. Bakalova, V. Hadjimitova, M. Ishikawa, Y. Shinohara, and Y. Baba. – Phenothiazines suppress proliferation and induce apoptosis in cultured leukemic cells without any influence on the viability of normal lymphocytes, Cancer Chemother. Pharmacol., 2004, 53(3), 267-275.

12. Alexandru T., A. Staicu, A. Pascu, E. Radu, A. Stoicu, V. Nastasa, A. Dinache, M. Boni, L. Amaral, and M.L. Pascu. – Characterization of mixtures of compounds produced in chlorpromazine aqueous solutions by ultraviolet laser irradiation: their applications in antimicrobial assays, J. Biomed. Optics, 2015, **20**(5), Art. No. 051002.
13. Amaral L., and J. Molnar. – Why and how the old neuroleptic thioridazine cures the XRD-TB patient, Pharmaceuticals, 2012, **5**(9), 1021-1031.
14. Authors in Chinese. – Mechanisms of the potential effect of phenothiazines as anti-cancer drugs, Scientia Sinica Vitae, 2013, **43**(11) [in Chinese – web stranslation].
15. Banerjee S., J. Ghosh, and P.C. Sil. – Drug metabolism and oxidative stress: Cellular mechanism and new therapeutic insights, Biochem. Anal. Biochem., 2016, **5**, 255.
16. Bhatia M., and E. Sachlos. – Combination therapy for the treatment of cancer, US Patent No. US20170071971 A1, Publicatio date: March 16, 2017.
17. Bhatia M., T. Collins, E. Saxhlos, and R.M. Risueno. – Methods for identifying and validating selective anti-cancer stem cell agents, US Patent No. US9566282 B2, Publ. February 14, 2017.
18. Brem B., E. Gal, L. Gaina, L. Silaghi-Dumitrescu, E. Fischer-Fodor, C.I. Tomulesa, A. Grozav, V. Zaharia, L. Filip, and C. Cristea. – Novel thiazolo[5,4-b]phenothiazine derivatives: Synthesis, structural characterization, and in vitro evaluation of antiproliferative activity against human leukemia, Int. J. Mol. Sci., 2017, **18**(7), 1365.
19. Chen T., Y. Hu, B. Liu, X. Huang, Q. Li, N. Gao, Z. Jin, T. Jia, D. Guo, and G. Jin. – Combining thioridazine and loratadine for the treatment of gastrointestinal tumor, Oncology Lett., 2017, **14**(4), 4573-4580.
20. Choi A-R., J-H. Kim, and S. Yoon. – Thioridazine specifically sensitizes drug-resistant cancer cells through highly increase in apoptosis P-gp inhibition, Tumor Biol., 2014, **35**, 9831-9838.
21. Chougala L.S., J.S. Kadadevarmath, A.A. Kamble, P.K. Bayannavar, M.S. Yatnatti, R.K. Linganagoudar, J.M. Nirupama, R.R. Kamble, and Q. Qiao. – Effect of TiO_2 nanoparticles on newly synthesized phenothiazine derivative-CPTA dye and its applications as dye sensitized solar cell, J. Mol. Liquits, 2017, **244**, 97-102.
22. Deshpande D., S. Srivastava, S. Musuka, and T. Gumbo. – Thioridazine as chemotherapy for *Mycobacterium avium* complex diseases, Antimicrobial Agents and Chemotherapy, 2016, **60**(8), 4652-4658.
23. Faria (De Faria) P.A., F. Bettanin, R.L.O.R. Cunha, E.J. Paredes-Gamero, P. Homem-de-Mello, I.L. Nantes, and T. Rodrigues. – Cytotoxicity of phenothiazine derivatives associated with mitochondrial dysfunction: A structure-activity investigation, Toxicology, 2015, **330**(1), 44-54.
24. Fond G., A. Macgregor, J. Attal, A. Larue, M. Brittner, D. Ducasse, and D. Capdevielle. – Antipsychotic drugs: Pro-cancer or anti-cancer? A systematic review, Med. Hypotheses, 2012, **79**(1), 38-42.
25. Furukawa S., S. Hayashi, M. Abe, S. Hagio, K. Irie, Y. Kuroda, I. Ogawa, and A. Sugiyama. – Effect of chlorpromazine on rat placenta development, Exp. Toxicol. Pathol., 2014, **66**(1), 41-47.

26. Furukawa S., N. Tsuji, S. Hayashi, M. Abe, S. Hagio, Y. Yamagishi, Y. Kuroda, and A. Sugiyama. – Histomorphological comparison of rat placentas by different timimg of chlorpromazine-administration, Exp. Toxicol. Pathol., 2015, **67**(8), 443-452.
27. Gonzalez, Daimel Castillo. – Nouveaux ligands de quadruplexes. Approaches in silico et in vitro. PhD Thesis, Universite de Bordeaux, 2013.
28. Gutierrez A., L. Pan, R.W.J. Groen et al. – Phenothiazines induce PP2A-mediated apoptosis in T cell acute lymphoblastic leukemia, J. Clin. Invest., 2014, **124**(2), 644-655.
29. Hanusova V., L. Skalova, V. Kralova, and P. Matouskova. – Potential anti-cancer drugs commonly used for other indications, Curr. Cancer Drug Targets, 2015, **15**(1), 35-52.
30. Hert (De Hert) M., J. Peuskens, T. Sabbe, J. Mitchell, B. Stubbs, P. Neven, H. Wildiers, and J. Detraux. – Relationship between prolactin, breast cancer risk, and antipsychotics in patients with schizophrenia: a critical review, Acta Psychiatrica Scandinavica, 2016, **133**(1), 5-22.
31. Hert (De Hert) M., D. Vancampfort, B. Stubbs, T. Sabbe, H. Wildiers, and J. Detraux. – Antipsychotic treatment, prolactin, and breast tumorogenesis, Psychiatria Danubina, 2016, **28**(3), 234-254.
32. Hong S., M-Y. Lee, K.S. Shin, and S.J. Kang. – Perphenazine and trifluoperazine induce mitochondria-mediated cell death in SH-SY5Y cells, Animal Cells and Systems, 2012, **16**(1), 20-26.
33. Jiang J., Z. Huang, X. Chen, R. Luo, H. Cai, H. Wang, H. Zhang, T. Sun, and Y. Zhang. – Trifluoperasine activities FOXO1-related signals to inhibit tumor growth in hepatocellular carcinoma, DNA Cell Biol., 2017 [E-pub: September 6, 2017].
34. Krappmann D., D. Nagel, D. Schendel, and S. Spranger. – Selective inhibition of MALT1 protease by phenothiazine derivatives, US Patent No. US9504691 B2, Publ. November 29, 2016.
35. Krstic M., S.P. Sovilj, S. Borozan, M. Rancic, J. Poljarevic, and S.R. Grguric-Sipka. – N-alkylnhenothiazines – synthesis, structure and application as lifands in metal complezex, Hemijska Industrija, 2016, **70**(4), 461-471.
36. Lee J-K., D-H. Nam, and J. Lee. – Reporposing antipsychotics as glioblastoma therapeutics: Potentials and challenges, Oncol. Lett., 2016, **11**(2), 1281-1286.
37. Lou Y., R. Li, Y. Qiao, and Y. Zhang.. – Effects of trifluoperazine on proliferation and cell cycle of cultured human glomerular mesangial cells, Int. J. Transpl. Hemopurification, 2014, **12**(4) [in Chinese – web stranslation].
38. Lu M., J. Li, Z. Luo, S. Zhang, S. Xue, K. Wang, Y. Shi, C. Zhang, H. Chen, and Z. Li. – Roles of dopamine receptors and their antagonist thioridazine in hepatoma metastasis, Onco Targets Ther., 2015, **8**, 1543-1552.
39. Mannarino L., L. Paracchini, I. Craparotta, M. Romano, S. Marchini, R. Gatta, E. Erba, L. Clivio, C. Romualdi, M. D`Incalci, L. Beltrame, and L. Pattini. – A systems biology approach to investigate the mechanism of action of trabectedin in a model of myelomonocytic leukemia, Pharmacogenomics J., 2016 [E-pub; December 13, 2016].

40. Min K-J., B.R. Seo, Y.C. Bae, Y.H. Yoo, and T.K. Kwon. – Antipsychotic agent thioridazine sensitizes renal carcinoma Caki cells to TRAIL-induced apoptosis through ROS-mediated inhibition of Akt signaling and downregulation of Mcl-1 and c-FLIP(L), Cell Death & Disease, 2014, **5**, e1063.
41. Mu J., H. Xu, Y. Yang, W. Huang, J. Xiao, M. Li, Z. Tan, Q. Ding, L. Zhang, J. Lu, X. Wu, and Y. Liu. – Thioridazine, an antipsychotic drugs, elicits potent antitumor effects in gastric cancer, Oncology Reports, 2014, 2107-2114.
42. Mucke H.A.M. – Drug repurposing patent application January-March 2016, In: Assay and Drug Development Technologies, 2016, **14**(5), 313-316.
43. Mudduluru G., W. Walther, D. Kobelt, M. Dahlmann, C. Treese, Y.G. Assaraf, and U. Stein. – Repositioning of drugs for intervention in tumor progression and metastasis: Old drugs for new targets, Drug Resistance Updates, 2016, **26**, 10-27.
44. Nagel D., S. Spranger, M. Vincendeau, M. Grau, S. Raffegerst, B. Kloo, D. Hlahla, M. Neuenschwander, J.P. van Kries, K. Hadian, B. Doken, P. Lenz, G. Lenz, D.J. Schendel, and D. Krappmann. – Pharmacologic inhibition of MALT1 protease by phenotjiazines as a theraputic approach for the treatment of aggressive ABL-DLBCL, Cancer Cell, 2012, **22**(6), 825-837.
45. Plano D., J.A. Palop, and C. Sanmartin. – Chapter 16: Thermal analysis of sulfur and selenium compounds with multiple applications, including anticancer drugs, 2013, 365-384, http://dx.doi.org/10.5772/53048 (please, see Google Scholar).
46. Pulkoski-Gross A., J. Li, C. Zheng, Y. Li, N. Ouyang, B. Rigas, S. Zucker, and J. Cao. – Reporposing the antipsychotic trifluoperazine as an antimetastasis agent, Mol. Pharmacol., 2015, **87**(3), 501-512.
47. Qi L., and Y.Q. Ding. – Potential antitumor mechanisms of phenothiazine drugs, Science China, 2013, **56**(11), 1020-1027.
48. Sachlos E., R.M. Risueno, S. Laronde, Z. Shapovalova, J.H. Lee, J. Russell, M. Malig, J.D. McNicol, A. Fiebig-Comyn, M. Graham, M. Levadoux-Martin, J.B. Lee, A.O. Giacomelli, J.A. hassell, D. Fischer-Russell, M.R. Trus, R. Foley, B. Leber, A. Xenocostas, E.D. Brown, T.J. Collins, and M. Bhatia. – Identification of drugs including a dopamine receptor antagonist that selectively target cancer stem cells, Cell, 2012, **149**(6), 1284-1297.
49. Seo E-J., and T. Efferth. – Interaction of antihistaminic drugs with human translationally controlled tumor protein (TCTP) as novel approach for differentiation therapy, Oncotarget, 2016, **7**(13), 16818-16839.
50. Seo S.U., H.K. Cho, K. Min, S.M. Woo, S. Kim, J-W. Park, S.H. Kim, Y.H. Choi, Y.S. Keum, J.W. Hyun, H.H. Park, S-H. Lee, D.E. Kim, and T.K. Kwon. – Thioridazine enhances sensitivity to carboplatin in human head and neck cancer cells through downregulation of c-FLIP and Mcl-1 expression, Cell. Death Dis., 2017, **8**(2), e2599.
51. Seo S.U., T.H. Kim, D.E. Kim, K. Min, and T.K. Kwon. – NOX4-mediated ROS production indices apoptotic cell death via down-regulation of c-FLIP and Mcl-1 expression in combined treatment with thioridazine and curcumin, Redox Biol., 2017, **13**, 608-622.

52. Shin S.Y., K.S. Lee, Y-K. Choi, H.J. Lim, H.G. Lee, Y. Lim, and Y.H. Lee. – The antipsychotic agent chlorpromazine induces autophagic cell death by inhibiting Akt/mTOR pathway in human U-87MG glioma cells, Carcinogenesis, 2013, E-pub: May 20, DOI: 10.1093/carcin/bgt169.
53. Sleire L., H. Forde-Tislevoll, I. Natland, L. Leiss, B. Skeie, and P. Enger. – Drug repurposing in cancer, Pharmacol. Res., 2017, **124**, 74-91.
54. Spengler G., A. Csonka, J. Molnar, and L. Amaral. – The anticancer activity of the old neuroleptic phenothiazine-type drug thioridazine, Anticancer Res., 2016, **36**(11), 5701-5706.
55. Yin Y-C., C-C. Lin, T-T. Chen, J-Y. Chen, H-J. Tsai, C-Y. Wang, and S-Y. Chen. – Clozapine induces autophagic cell death in non-small cell lung cancer cells, Cell. Physiol. Biochem., 2015, **35**(3), 945-956.
56. Zhang B., Y. Shimada, J. Kuroyanagi, N. Umemoto, Y. Nishimura, and T. Tanaka. – Quantitative phenotyping-based in vivo chemical screening in a Zebrafish model of leukemia stem cell xenotransplantation, PLoS One, 2014, **9**(1), e85439.
57. Zhang C., P. Gong, P. Liu, Y. Zhou, and Y. Wang. – Thioridazine elicits potent antitumor effects in colorectal cancer stem cells, Oncology Reports, 2017, **37**(2), 1168-1174.
58. Zong D. – Molecular characterization of phenothiazines in experimental cancer therapy – new tricks of an old drug revealed, PhD Thesis, Karolinska Institute, April 4, 2012, ISBN: 978-91-7457-712-9 (please, see Google Scholar).

Bakalova R., H. Ohba, Z. Zhelev, T. Kubo, M. Fujii, M. Ishikawa, Y. Shinohara, and Y. Baba. – Antisense inhibition of Bcr-Abl/c-Abl synthesis promotes telomerase activity and upregulates tankyrase in human leukemia cells, FEBS Lett., 2004, 564(1-2), 73-84.

59. Luo X., T. Sugiura, R. Nakashima, Y. Kitamura, and Y. Kitade. – Synthesis of oligonucleotides with glucosamine at the 3'-position and evaluation of their biological activity, Bioorg. Med. Chem. Lett., 2013, **23**(14), 4157-4161.
60. Piccaluga P.P., S. Paolini, C. Bertuzzi, A. De Leo, and G. Rosti. – First-line treatment of chronic myeloid leukemia with nilotinib: clinical evaluation, J. Blood Med., 2012, **3**, 151-156.
61. Wang L., H. Xiao, X. Zhang, C. Wang, and H. Huang. – The role of telomeres and telomerase in hematologic malignancies and hematopoietic stem cell transplantation, J. Hematol. Oncol., 2014, **7**, 61.

Zhelev Z., R. Bakalova, H. Ohba, A. Ewis, M. Ishikawa, Y. Shinohara, and Y. Baba. – Suppression of bcr-abl synthesis by siRNAs and protein tyrosine kinase activity by Glivec alters different oncogenes, apoptotic/antiapototic and cell proliferation factors (microarray study), FEBS Lett., 2004, 570(1-3), 195-204.

62. Chen W.Y., R. Bhatia, L. Su, Y-C. Yuan. – Cell cultured model for acquired chemoresistance of CML and related methods for identifying agents to overcome resistance, US Patent No. US8580488 B2, 2013 (US Patent 9176114, 2015).

63. Chereda, Bradley. – Regulation of bcr-abl expression via its 3` untranslated region, PhD Thesis, University of Adelaide, 2013 (please, see Google Scholar).
64. Landry, Breanne Kathleen. – Lipopolymer mediated siRNA therapy for cancer: Focus on acute myeloid leukemia, PhD Thesis, University of Alberta, 2015 (please, see Google Scholar).
65. Landry B., J. Valencia-Serna, H. Gul-Uludag, X. Jiang, A. Janowska-Wieczorek, J. Brandwein, and H. Uludag. – Progress in RNAi-mediated molecular therapy of acute and chronic myeloid leukemia, Mol. Ther. Nucl. Acids, 2015, **4**, e240.
66. Suh J.S., J.Y. Lee, Y.S. Choi, P.C. Chong, and Y.J. Park. – Peptide-mediated intracellular delivery of miRNA-29b for osteogenic stem cell differentiation, Biomaterials, 2013, **34**(17), 4347-4359.
67. Valencia-Serna J., H. Gul-Uludag, P. Mahdipoor, X. Jiang, and H. Uludag. – Investigating siRNA delivery to chronic myeloid leukemia K562 cells with lipophilic polymers for therapeutic bcr-abl down-regulation, J. Controlled Release, 2013, **172**(2), 495-503.
68. Zhang J., and S.N. Hochwald. – The role of FAK in tumor metabolism and therapy, Pharmacol. Ther., 2014, **142**(2), 154-163.

Ohba H., <u>Z. Zhelev</u>, R. Bakalova, A. Ewis, T. Omori, M. Ishikawa, Y. Shinohara, and Y. Baba. – Inhibition of bcr-abl and/or c-abl gene expression by small interfering double-stranded RNAs: cross-talk with cell proliferation factors and other oncogenes, Cancer, 2004, 101(6), 1390-1403.

69. Freire J.M., I.R. de Figueredo, J. Valle, A.S. Veiga, D. Andreu, F.J. Enguita, and M. Castanho. – siRNA-cell-penetrating peptides complexes as a combinatorial therapy against chronic myeloid leukemia using BV173 cell line as model, J. Controlled Release, 2017, **245**, 127-136.
70. Koldehoff M., J.L. Zakrzewski, D.W. Beelen, and A.H. Elmaagacli. – Additive antileukemia effects by GFI1B- and BCR-ABL-specific siRNA in advanced phase chronic myeloid leukemia cells, Cancer Gene Ther., 2013, **20**, 421-427.
71. Yang C., N. Panwar, Y. Wang, B. Zhang, M. Liu, H. Toh, H.S. Yoon, S.C. Tjin, P.H.J. Chong, W-C. Law, C-K. Chen, and K-T. Yong. – Biodegradable charged polyester-based vectors (BCPVs) as an efficient non-viral transfection nanoagent for gene knockdown of the bcr-abl hybrid oncogene in a human chronic myeloid leukemia cell line, Nanoscale, 2016, **8**, 9405-9416.

<u>Zhelev Z.</u>, R. Jose, T. Nagase, H. Ohba, R. Bakalova, M. Ishikawa, and Y. Baba. – Enhancement of the photoluminescence of CdSe quantum dots during long-term UV-irradiation: privilege or fault in life science research? J. Photochem. Photobiol. B, 2004, 75, 99-105.

72. Bailon-Ruiz S., and O.Perales-Perez. - UV-enhanced toxicity of water-stable quantum dots in human pancreatic carcinoma cells, J. Exp. Nanosci., January 21, 2013,

DOI:10.1080/17458080.2012.750764 [Epub ahead of print].
73. Bailon-Ruiz S., O. Peralez-Perez, Y-F. Su, and Y. Xin. - One-step Synthesis of Water-dispersible ZnSe(S)-alloy Quantum Dots in the Presence of Thiol Species, Curr. Nanosci., 2013, **9**(1), 117-121.
74. Bailon-Ruiz S., and O. Peralez-Perez. – UV-enhanced toxicity of water-soluble quantum dots in human pancreatic carcinoma cells, J. Exp. Nanosci., 2014, **9**(9).
75. Bailon-Ruiz S., and O. Perales-Perez. – Aqueous synthesis of Cu-doped Zn-based quantum dots with light-enhanced cytotoxic capacity for potential biomedical applications, Curr. Nanosci., 2016, **12**(3), 396-401.
76. Bardajee C.R., Z. Hooshyar, S. Norouzi, and S.A. Moallem. – Preparation and characterization of water-soluble and highly fluorescent biopolymer-conjugated CdS quantum dots, Curr. Nanosci., 2012, **8**(3), 361-366.
77. Hemmateenejad B., M. Shamsipur, T. Khosousi, M. Shanehsaz, and O. Firuzi. – Antioxidant activity assay based on the inhibition of oxidation and photobleaching of L-cysteine-capped CdTe quantum dots, Analyst, 2012, **137**(17), 4029-4036.
78. Impellizzeri S., B. Mccaughan, J.F. Callan, and F.M. Raymo. – Photoinduced enhancement in the luminescence of hydrophilic quantum dots coated with photoclevable ligands, J. Am. Chem. Soc., 2012, **134**(4), 2276-2283.
79. Korotcenkov C. – Chapter 5: Semiconductor nanostructures: 5.1. Quantum Dots, In: "Handbook of Gas Sensor Materials", Springer, 2014, pp. 93.
80. Prymak M.V., Yu.M. Azhniuk, V.V. Zvenigorodsky, V.M. Krasilinets, O.E. Rayevska, O.L. Stroyuk, A.V. Gomonnai, and D.R. Zahn. – Photoluminescence of X-ray irradiated CdSe nanocrystals embedded in dielectric matricies, Physica Status Solidi A, 2013, **210**(6), 1115-1120.
81. Ruan X., C. Yang, X. Wu, K. Yu, and Y-L. Feng. – UV-induced transformation and physicochemical property changes of quantum dots in the presence of air, J. Nanopart. Res., 2014, **16**, 2435.
82. Singth, Dorendrajit. – Synthesis and photoluminescence studies of MVO4:Ln3+ (M = Gd, Y & Ln3+ = lanthanide ions) and CdX (X = S, Se) nanocrystals and thin films, PhD Thesis, Manipur University, India, 2013 (please, see Google Scholar).
83. Thorsen, Amanda Leigh. – Electronic doping and trap reduction of quantum dots, PhD Thesis, University of Washington, 2014 (please, see Google Scholar).
84. Zhang P., and H. Han. – Compact PEGylated polymer-caged quantum dots with improved stability, Collids & Surfaces A-Physicochemical and Engineering Aspects, 2012, **402**, 72-79
85. Zhang B., R. Hu, Y. Wang, C. Yang, X. Liu, and K-T. Yong. – Revisiting the principles of preparing aqueous quantum dots for biological applications: the effects of surface ligands on the physicochemical properties of quantum dots, RSC Adv., 2014, **4**, 13805-13816.
86. Zhou H., G. Zhou, J. Zhou, D. Xu, X. Zhang, P. Kong, and Z. Yu. – High luminescent core-shell QDs based on noninjection synthesized CdSe QDs: observation of magic sized CdSe

quantum dots, RSC Adv., 2014, **4**, 42316-42325.
87. Zhou H., G. Zhou, J. Zhou, D. Xu, X. Zhang, P. Kong, and Z. Yang. – Wide emission-tunable CdTeSe/ZnSe/ZnS core-shell quantum dots and their conjugation with *E. coli* O-157, Mater. Res. Bull., 2015, **65**, 53-60.

Bakalova R., H. Ohba, Z. Zhelev, T. Nagase, R. Jose, M. Ishikawa, and Y. Baba. – Quantum dot anti-CD conjugates: Are they potential photosensitizers or potentiators of classical photosensitizing agents in photodynamic therapy of cancer? Nano Lett. 2004, 4(9), 1567-1573.

88. Al-Jamal T., Wafa. – Core-shell semiconductor nanocrystals: Effect of composition, size, surface coatings and their optical properties, toxicity and pharmacokinetics, Curr. Pharm. Design, 2017, **23**(3), 340-349.
89. Ahmad F., A.K. Pandey, A.B. Herzog, J.B. Rose, C.P. Gerba, and S.A. Hashham. – Environmental applications and potentials health implications of quantum dots, J. Nanopart. Res., 2012, **14**, 1038.
90. Authors, title and text in Chinese. – Progress in the mechanisms of apoptosis, induced by quantum dots, Journal of Hygiene Research, 2014, **43**(4) [in Chinese – web translation].
91. Bhat S.S., A. Qurashi, and F.A. Khanday. – ZnO nanostructures based biosensors for cancer and infectious disease applications: Perspectives, prospects and promises, Trens Anal. Chem., 2017, **86**, 1-13.
92. Charron G., T. Stuchinskaya, D.R. Edwards, D.A. Russell, and T. Nann. – Insights into the mechanism of quantum dot-sensitized singlet oxygen production for photodynamic therapy, J. Phys. Chem. C, 2012, **116**(16), 9334-9342.
93. Crus-Acuna M., S. Bailon-Ruiz, C.R. Marti-Figueroa, R. Cruz-Acuna, and O.J. Perales-Perez. – Synthesis, characterization and evaluation of the cytotoxicity of Ni-doped Zn (Se,S) quantum dots, J. Nanomaterials, 2015, Art. No. 702391.
94. Cywinski P.J., T. Hammann, D. Huhn, W.J. Parak, N. Hildebrandt, and H-G. Lohmannstroben. – Europium-quantum dot nanobioconjugates as luminescent probes for time-gated biosensing, J. Biomed. Opt., 2014, **19**(10), Art. No. 101506.
95. Delehanty J.B., K. Susumi, R.L. Manthe, W.R. Algar, and I.L. Medintz. – Active cellular sensing with quantum dots: Transitioning from research tool to reality: a review, 2012, **750**(SI), 63-81.
96. Dong C., and J. Irudayaraj. – Hydrodynamic size-dependent cellular uptake of aqueous QDs probed by fluorescence correlation spectroscopy, J. Phys. Chem. B, 2012, **116**(40), 12125-12132.
97. Febregat V., M.I. Burguete, S.V. Luis, and F. Galindo. – Improving photocatalytic oxygenation mediated by polymer supported photosensitizers using semiconductor QDs as “light antennas”, RCS Adv., 2017, **7**, 35154-35158.
98. Feng L., F. He, Y. Dai, B. Liu, G. Yang, S. Gai, N. Niu, R. Lv, C. Li, and P. Yang. – A versatile NIR light triggered dual-photosensitizer for synchronous bioimaging and photodynamic therapy,

ACS Appl. Mater. Interfaces, 2017, **9**(15), 12993-13008.

99. Fudimura K.A., A.B. Seabra, M.C. Santos, and P.S. Haddad. – Synthesis and characterization of methylene blue-coating silica-coated magnetic nanoparticles for photodynamic therapy, J. Nanosci. Nanotechnol., 2017, **17**(1), 133-142.

100. Gao F., X. Wang, S, Wang, M. Liu, X. Liu, X. Ye, and H. Li. – Bromine-substituted p-nitrostilbene derivatives: synthesis, crystal structure studies, photoluminescence and the heavy atom effect on the singlet oxygen generation by two-photon absorption, Tetrahedron, 2013, **69**(13), 2720-2732.

101. Geszke-Moritz M., and M. Moritz. – Quantum dots as versatile probes in medical sciences: Synthesis, modification and properties, Mater. Sci. Eng. C, 2013, **33**(3), 1008-1021.

102. Giu R., H. Jin, Z. Wang, and L. Tan. – Recent advances in optical properties and applications of colloidal QDs under two-photon excitation, Coordination Chem. Rev., 2017, **338**, 141-185.

103. Goodman, Samuel Martin. – Quantum dot nanobioelectronics and selective antimicrobial redox interventions, PhD Thesis, University of Colorado at Boulder, US, 2016 (please, see Google Scholar).

104. He Y., K. Huang, F. Jiang, J. Wang, and J. Xiong. – Experimental research on the vitro inactivation of HL60 cells based on CdTe and CdSe quantum dots, Hans Journal of Biomedicine, 2012, **2**, 1-5 [in Chinese].

105. Hemmateenejad B., M. Shamsipur, T. Khosousi, M. Shanehsaz, and O. Firuzi. – Antioxidant activity assay based on the inhibition of oxidation and photobleaching of L-cysteine-capped CdTe quantum dots, Analyst, 2012, **137**(17), 4029-4036.

106. Hildebrandt N., C.M. Spillmann, W.R. Algar, T. Pons, M.H. Stewart, R. Oh, K. Susumi, S,A. Diaz, J.B. Delehanty, and I.L. Medintz. – Energy transfer with semiconductor quantum dot bioconjugates: A versatile platform for biosensing, energy harvesting, and other developing applications, Chem. Rev., 2017, 117(2), 536-711.

107. Hong X., J. Wang, L. Chen, B. Lin, and J. Xiong. – The optimal parameter of in vitro inactivation of leukemic HL60 cells by double drug delivery of CdSe quantum dots based on photodynamic therapy, Acta Laser Biology Sinica, 2013, **22**(5) [in Chinese – web translation].

108. Johnstone T.C., K. Suntharalingam, and S.J. Lippard. – The next generation of platimun drugs: Targeted Pt(II) agents, nanoparticle delivery, and Pt(IV) prodrugs, Chem. Rev., 2016, **116**(5), 3436-3486.

109. Juzenas P., A. Kleinauskas, P. George Luo, and Y.-P. Sun. – Photoactivatable carbon nanodots for cancer therapy, Appl. Phys. Lett., 2013, **103**(6), Art. No. 063701.

110. Kawasaki H., S. Kumar, G. Li, C. Zeng, D.R. Kauffman, J. Yoshimoto, Y. Iwasaki,and R. Jin. – Generation of singlet oxygen by photoexcited $Au_{25}(SR)_{18}$ clusters, Chem. Mather., 2014, **26**(9), 2777-2788.

111. Kourtesi C., A.R. Ball, Y-Y. Huang, S.M. Jachak, D.M.A. Vera, P. Khondkar, S. Gibbons, M.R. Hamblin, and G.P. Tegos. – Microbial efflux systems and inhibitors: Approaches to drug

discovery and the challenges of clinical implementation, The Open Microbiol. J., 2013, **7**, 34-52.

112. Kovtun O., X. Arzeta-Ferrer, and S.J. Rosenthal. – Quantum dot approaches for target-based drug screening and multiplexed active biosensing, Nanoscale, 2013, **5**(24), 12072-12081..

113. Kumar, Santosh. – Synthesis, characterization and application of water-soluble gold and silver nanosclusters, PhD Thesis, Carnegi Mellon University, 2013.

114. Kundu S., and A. Patra. – Nanoscale strategies for light harvesting, Chem. Rev., 2017, **117**(2), 712-757.

115. Liu L., Q. Miao, and G. Liang. – Quantum dots as multifunctional materials for tumor imaging and therapy, Materials, 2013, **6**, 483-499.

116. Luo Y., Q. Zhang, L. Chen, B. Al, and J. Xiong. – Experimental research on the PDT in vitro inactivation of HL60 cells based on FRET between TiO2 and CdTe quantum dots, Acta Laser Biology Sinica, 2015, 24(6), 506-512 [in Chinese].

117. Ma Y., H. Shen, M. Zhang, and Z. Zhang. – Chapter 4: Quantum dots for tumor targeting theranostics. In: "Nanomaterials for Tumor Targeting Theranostics: A Proactive Clinical Perspective" (M. Tan, and A. Wu, eds.), World Scientific, Beijing, China, 2016, p. 85

118. Majumdar P., R. Nomula, and J. Zhao. – Activatable triplet photosensitizers: magic bullets for targeted photodynamic therapy, J. Mater. Chem. C, 2014, **2**, 5982-5997.

119. Maldonado C.R., N. Gomez-Blanco, M. Jauregui-Osoro, V.G. Brunton, L. Yate, and J.C. Mareque-Rivas. – QD-filled micelles which combine SPECT and optical imaging with light-induced activation of a platinum(IV) produg for anticancer applications, Chem. Commun., 2013, **49**(38), 3985-3987.

120. Maldonado C.R., L. Salassa, N. Gomez-Blanco, and J.C.M. Rivas. – Nano-functionalization of metal complexes for molecular imaging and anticancer therapy, Coordination Chemistry Reviewes, 2013, **257**(19-20), 2668-2688.

121. Mandal S., M. Rahaman, S. Sadhu, S.K. Nayak, and A. Patra. – Fluorescence switching of quantum dots in quantum dot-porphyrin-cucurbit [7] uril assemblies, J. Phys. Chem. C, 2013, **117**(6), 3069-3077.

122. Medintz I., N. Hildebrandt, W. Russ Algar, M. Massey, and U.J. Krull. – Chapter 12. Semiconductor quantum dots and FRET, In: "FRET –Forster Resonance Energy Transfer: From Theory to Applications", Wiley-VCH, 2013, DOI: 10.1002/9783527656028.ch1

123. Othman Z.A. – Inorganic nanomedicine: Synthesis, characterization and application, Materials Science Forum, 2013, Vo. 754, pp. 21-87.

124. Paul S. – Photophysical investigation and pharmaceutical applications of chlorine e6 in biodegradable carriers, PhD Thesis, National University of Singapore, 2013 (please, see Google Scholar).

125. Pavlov V. – Enzymatic growth of metal and semiconductor nanoparticles in bioanalyses, Particle & Particle Systems Characterization, 2014, **31**(1), 36-45.

126. Sagun E.I., V.N. Knyukshto, N.V. Ivashin, E.E. Shchupak, G.K. Zhavnerko, N.V. Karatai, and V.E. Agabekov. – Photoinduced relaxation processes in self-assembling complexes from CdSe/ZnS water-soluble nanocrystals and cationic porphyrins, Optics and Spectroscopy, 2012, **113**(2), 165-178.

127. Schroder S. – Chapter 1: Basics, In: “Ordered Sets”, Springer, 2016, pp. 1-21 (please, see Google Scholar).

128. Schroder K.L., R.V. Goreham, and T. Nann. – Graphene quantum dots for theranostics and bioimaging, Pharmaceurical Res., 2016, **33**(10), 2337-2357.

129. Skripka A., J. Valanciunaite, G. Dauderis, V. Poderys, R. Kubiliute, and R. Rotomskis. – Two-photon excited quantum dots as energy donors for photosensitizer chlorine e6, J. Biomed. Opt., 2013, **18**(7), 078002.

130. Sortino S. – Photoactivated nanomaterials for biomedical release applications, J. Mater. Chem., 2012, **22**, 301-318.

131. Stanca L., S.N. Petrache, M. Radu, A.I. Serban, M.C. Munteanu, D. Teodorescu, A.C. Staicu, C. Sima, M. Costache and C. Grigoriu. – Impact of silicon-based quantum dots on the antioxidative system in white muscle of Carassius auratus gibelio, Fish Physiol. Biochem., 2012, **38**(4), 963-975.

132. Tekdas D.A., M. Durmus, H. Yanik, and V. Ahseh. – Photodynamic therapy potential of thiol-stabilized CdTe quantum dot-group 3A phthalocyanine conjugates (QD-PC), Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 2012, **93**, 313-320.

133. Thurber A., D.G. Wingett, J.W. Rasmussen, J. Layne, L. Johnson, D.A. tanne, J. Zhang, C.B. Hanna, and A. Punnoose. – Improving the selective cancer killing ability of ZnO nanoparticles using Fe doping, Nanotoxicology, 2012, **6**(4), 440-452.

134. Tian B. – Multifunctional quantum dot-based nanoscale modalities for theranostic applications, Chapter: Advances in Nanotheranostics I, In: Springer Series in Biomaterials Science and Engineering”, 2015, Vol. 6, pp. 197-2016.

135. Timor R., H. Weitman, N. Waiskopf, U. Banin, and B. Ehrenberg. – PEG-phosphplipids coated quantum dots as amplifiers of the photosensitization process by FRET, ACS Appl. Mater. Interfaces, 2015, **7**(38), 21107-21114.

136. Tomczak N., D. Janczewski, D. Dorokhin, M-Y. Han, and G.J. Vancso. – Chapter 16: Enabling biomedical research with designer quantum dots, Meth. Mol. Biol., 2012, **811**, 245-265.

137. Vivas M.C., J.C.L. De Sousa, L. De Boni, M.A. Schiavon, and C.R. Mendonca. – Observation of distinct two-photon transition channels in CdTe QDs in a regime of very strong confinement, Materials, 2017, **19**(4), 363.

138. Wu C.H., L.X. Shi, Q.N. Li, H. Jiang, M. Selke, H. Yan, and X.M. Wang. – New strategy of efficient inhibition of cancer cells by carborane carboxylic acid-CdTe nanocomposites, nanomed.-Nanotechnol. Biol. Med., 2012, **8**(6), 860-869.

139. Wu C.H., L.X. Shi, C.Y. Wu, D.D. Guo, M. Selke, and X.M. Wang. – Enhanced in vitro

anticancer activity of quercetin mediated by functionalized CdTe QDs, Science China, 2014, **57**(11), 1579.
140. Wu S-M., X-H. Sun, L-L. Wang, M-Y. Fei, and Z-Y. Yan. – Singlet oxygen-generating from fluorescence probes based on denatured bovine albumin-conjugated CdTe quantum dots and photosensitizer Chlorin e6, J. Nanopart. Re., 2014, **16**, 2701.
141. Yan Y., J. Tian, F. Hu, X. Wang, and Z. Shen. – A NIR photosensitizer based on self-assembled CdSe QD-aza-BODIPY conjugate coated with poly(ethylene glycol) and folic acid for concurrent fluorescence imaging and photodynamic therapy, RSC Adv., 2016, **6**(115), 113991-113996.
142. Yan Z-Y., L-L. Wang, M-Y. Fei, X-Y. Liu, Y-L. Su, Q-Q. Du, and S-M. Wu. – Construction of photodynamic-effect immunofluorescence probes by a complex of quantum dots, immunoglobulin G and chlorin e6 and their application in HepG2 cell killing, Luminescence, 2016, **31**(6), 1174-1181.
143. Yu J., X. Chu, and Y. Hou. – Stimuli-responsive cancer therapy based on nanoparticles, Chem. Commun. (Camb.), 2014, **50**, 11614-11630.
144. Zenkevich E.I., S.V. Gaponenko, E.I. Sagun. – Bioconjugates based on semiconducyor quantum dots and porphyrin ligands: properties, exciton relaxation pathways…, Rev. Nanosci. Nanotechnol., 2013, **2**(3), 184-207.
145. Zhu W., S. Pan, W. Wang, C. Zhao, L. Lu, and X. Liu. – Hydrothermal syntheis of raisin-bun-like CdTe@C nanocomposites toward enhanced photoluminescence and low cytotoxicity, New J. Chem., 2013, **37**(9), 2751-2757.

Zhelev Z., R. Bakalova, A. Ewis, H. Ohba, M. Ishikawa, and Y. Baba. – Non-radioactive telomerase activity assay by microchip electrophoresis: Privileges to the classical gel electrophoresis assay, Electrophoresis, 2005, 26(15), 3021-3024 3257-3259.

146. Karasawa K., and H. Arakawa. – Detection of telomerase activity using microchip electrophoresis, J. Chromatography B, 2015, **993-994**, 14-19.
147. Zhou X.M., and D. Xing. – Assays for human telomerase activity: progress and prospects, Chem. Soc. Rev., 2012, **41**(13), 4643-4656.

Kubo T., Z. Zhelev, R. Bakalova, H. Ohba, K. Doi, and M. Fujii. – Controlled intracellular localization and enhanced antisense effect of oligonucleotides by chemical conjugation, Org. Biomol. Chem., 2005, 3(18), 3257-3259.

148. Anzahaee M.Y., G.F. Deleavey, U. L. Phuong, J. Fakhoury, K. Petrecca, and M. Damha. – Arabinonucleic acids: 2`-stereoisomeric modulators of siRNA activity, Nucl. Acid Ther., 2014, **24**(5), 336-343.
149. Crooke S.T., S. Wang, T.A. Vickers, W. Shen, and X-H. Liang. – Cellular uptake and trafficking of antisense oligonucleotides, Nat. Biotechnol., 2017, **35**, 230-237.

Takamori K., T. Kubo, Z. Zhelev, R. Bakalova, H. Ohba, K. Doi, and M. Fujii. – Suppression of bcr/abl chimeric gene by conjugate DNA enzymes in human cells, Nucl. Acids Symp. Ser. (Oxf.), 2005, 49(1), 333-334.

150. Benitez-Henz M.L., P. Reyes-Gutierrez, and L.M. Alvarez-Salas. – Oligonucleotide applications for the therapy and diagnosis of human papillpmavirus infection, Chapter 5, 2012, pp. 94-122 (please, see Scholar Google or http://cdn.intechweb.org/pdfs/26629.pdf).

Bakalova R., Z. Zhelev, R. Jose, T. Nagase, H. Ohba, M. Ishikawa, and Y. Baba. – Role of free cadmium and selenium ions for the enhancement of photoluminescence of CdSe quantum dots under ultraviolet irradiation, J. Nanosci. Nanotechnol., 2005, 5(6), 887-894.

151. Dannehl C., T. Gutsmann, and G.Brezesinski. – Surface activity and structures of two fragments of the human antimicrobial LL-37, Colloids and Surfaces B: Biointerfaces, 2013, **109**(1), 129-135.

152. Dannehl, Claudia. – Fragments of the human antimicrobial LL-37 and their interaction with model membranes, PhD Thesis, Universitat Potsdam, 2013.

153. Gaspar D., A.S. Veiga, and M.A.R.B. Castanho. – From antimicrobial to anticancer peptides, A review, Front. Microbiol., 2013, **4**, 294.

154. Ghaderi S. – Development of fluorescent nanoparticles quantum dors for biomedical application, PhD Thesis, University College London, 2012 (please, see Google Scholar).

155. Han Y-Y., H-Y. Liu, D-J. Han, X-C. Zhong, S-Q. Zhang, and Y-Q. Chen. – Role of glycosylation in the anticancer activity of antibacterial peptides against breast cancer cells, Biochem. Pharmacol., 2013, **86**(9), 1254-1262.

156. Harris F., S.R. Dennison, J. Singth, and D.A. Phoenix. – On the selectivity and efficacy of defence peptides with respect to cancer cells, Med. Res. Rev., 2013, **33**(4), 190-234.

157. McCracken, Christie. – Toxicity of food-relevant nanoparticles in intestinal epithelial models, PhD Thesis, 2015, The Ohio State University, US (please, see Google Scholar).

158. Paredes-Gamero E.J., M.N.C. Martins, F.A.M. Cappabianco, J.S. Ide, and A. Miranda. – Characterization of dual effects induced by antimicrobial peptides: Regulated cell death or membrane disruption, BBA-Gen. Subjects, 2012, **1820**(7), 1062-1072.

159. Rekdal Q., B.E. Haug, M. Kallaji, H.N. Hunter, I. Lindin, I. Israelsson, T. Solstad, N. Yang, M. Brandl, D. Mantzilas, and H.J. Vogel. – Relative spatial positions of tryptophan and cationic residues in helical membrane-active peptide determine their cytotoxicity, J. Biol. Chem., 2012, **287**, 233-244.

160. Ren S.X., J. Shen, A.S.L. Cheng, L. Lu, R.L.Y. Chan, Z.J. Li, X.J. Wang, C.C.M. Wong, L. Zhang, S.S.M. Ng, F.L. Chan, F.K.L. Chan, J. Yu, and C.H. Cho. – FK-16 derived from the anticancer peptide LL-37 indices caspase-independent apoptosis and autophagial cell death in colon cancer cells, PloS One, 2013, E-pub: May 20, DOI: 10.1371/journal.pone.00636

161. Silva B.F., T. Andreani, A. Gavina, M.N. Vieira, C.M. Pereira, T. Rocha-Santos, and R. Pereira. – Toxicological impact of cadmium-based quantum dots towards aquatic biota: Effect of natural sunlight exposure, Aquatic Toxicology, 2016, **176**, 197-207.
162. Tao H., J-J. Luo, J. Xu, Y-F. Tan, M. Gao, Q-J. Chen, Y-Q. Hong, Y-L. Huang, F-F. Zhang, Z-X. Lan, and N-X. Wu. – The effects of CdSe/ZnS quantum dots on embryonic development of zebrafish, Zhejiang Prev. Med. (in Chinese), 2015, **27**(2), 142.
163. Wang C., H-B. Li, S. Li, L-L. Tian, and D-J. Shang. – Antitumor effects and cell selectivity of temporin-1CEa, an antimicrobial peptide from the skin secretions of the Chinese brown frog (*Rana chensinensis*), Biochimie, 2012, **94**(2), 434-441.
164. Yang L., H-Y. Xu, H. Wei, and Y-H. Xions. – Recent advances on mechanisms of toxicity and reproductive toxicity of quantum dots, Reproduction & Contraception (in Chinese), 2012, **32**(12), 829-836.
165. Zane A., C. McCracken, D.A. Knight, W.J. Waldman, and P.K. Dutta. – Spectroscopic evaluation of the nucleation and growth for microwave-assisted CdSe/CdS/ZnS quantum dot synthesis, J. Phys. Chem. C, 2014, **118**(38), 22258-22276.

Zhelev Z., H. Ohba, R. Bakalova, R. Jose, S. Fukuoka, T. Nagase, M. Ishikawa, and Y. Baba. – Fabrication of quantum dot-lectin conjugates as novel fluorescent probes for microscopic and flow cytometric identification of leukemia cells from normal lymphocytes, Chemical Communications (Camb.), 2005, (15), 1980-1982.

166. Andrade C.G., P.E.C. Filho, D.P.L. Tenorio, B.S. Santos, E.I.C. Beltrao, A. Fontes, and L.B. Carvalho. – Evaluation of glycophenotype in breast cancer by quantum dot-lectin histochemistry, Int. J. Nanomed., 2013, **8**, 4623-4629.
167. Basseri H.R., M.S. Javazm, L. Farivar, and M.R. Abai. – Lectin-carbohydrate recognition mechanism of Plasmodium berhei in the midgut of malaria vector Anopheles stephensi using quantum dot as a new approach, Acta Tropica, 2016, **156**, 37-42.
168. Cao J.T., Z.X. Chen, X.Y. Hao, P.H. Zhang, and J.J. Zhu. – Quantum dots-based immunofluorescent microfluidic chip for the analysis of glycan expression at single-cells, Anal. Chem., 2012, **84**(22), 10097-10104.
169. Chaniotakis N., and R. Buiculescu. – Chapter 11: Semiconductor quantum dots in chemical sensors and biosensors, In: "Nanosensors for Chemical and Biological Applications: Sensing with Nanotubes, Nanowires and Nanoparticles" (K.C. Honeychurch, Ed.), Woodhead Publ. Ltd., 2014, pp. 267.
170. Duan N., S. Wu, Y. Yu, X. Ma, Y. Xia, X. Chen, Y. Huang, and Z. Wang. – A dual-color flow cytometry protocol for the simultaneous detection of Vibrio parahaemolyticus and Salmonella typhimurium using aptamer conjugated quantum dots as labels, Anal. Chim. Acta, 2013, **804**, 151-158.
171. Fang X.L., M. Han, G.F. Lu, W.W. Tu, and Z.H. Dai. – Electrochemiluminescence of

CdSe quantum dots for highly sensitive competitive immunosensing, Sensors and Actuators B-Chemical, 2012, **168**, 271-276.
172. Jeong H.H., Y.G. Kim, S.C. Jang, H.M. Yi, and C.S. Lee. – Profiling surface glycans on live cells and tissues using quantum dot-lectin nanoconjugates, Lab-on-a-chip, 2012, **12**(18), 3290-3295.
173. Liu H., X. Wu, X. Zhang, C. Burda, and J-J. Zhu. – Gold nanoclusters as signal amplification labels for optical immunosensors, J. Phys. Chem. C, 2012, **116**(3), 2548-2554.
174. Mashinchian O., M. Johari-Ahar, B. Ghaemi, M. Rashidi, J. Barar, and Y. Omidi. – Impacts of quantum dots in molecular detection and bioimaging of cancer, Bioimpacts, 2014, **4**(3), 149-166.
175. Santra S., P.H. Holloway, R.A. Mericle, H. Yang, and G.A. Walter. – Nanoparticles and their use for multifunctional bioimaging, US Patent No. US 8,128,908 B2, March 6, 2012.
176. Tenorio D.P.L.A., C.G. Andrade, P.E.C. Filho, C.P. Sabino, I.T. Kato, L.B. Carvalho, S. Alves, M.S. Ribeiro, A. Fontes, and B.S. Santos. – CdTe quantum dots conjugated to concanavalin A as potential fluorescent molecular probes for sacchardides detection in Candida albicans, J. Photochem. Photobiol. B, 2015, **142**, 235-243.
177. Zhang B., D.P. Tang, I.Y. Goryacheva, R. Niessner, and D. Knopp. – Anodic-stripping voltammetric immunoassay for ultrasensitive detection of low-abundance proteins using quantum dot aggregated hollow microspheres, Chemistry-A Eur. J., 2013, **19**(7), 2496-2503.
178. Zhu D., W. Li, L. Ma, and Y. Lei. – Glutathione-functionalized Mn:ZnS/ZnO core/shell quantum dots as potential time-resolved FRET bioprobes, RSC Adv., 2014, **4**(18), 9372-9378.

Bakalova R., Z. Zhelev, H. Ohba, and Y. Baba. – Quantum dot-based western blotting technology for ultrasensitive detection of "tracer" proteins, J. Am. Chem. Soc., 2005, 127(26), 9328-9329.

179. Authors, title and text in Chinese. – Fe3O4@SiO2@CdTe preparation and characterization of fluorescent magnetic composite microspheres, Acta Photonica Sinica, 2014, 9 [in Chinese – web translation] (please, see Google Scholar).
180. Chen C., Y. Liu, Z. Zheng, G. Zhou, X. Ji, H. Wang, and Z. He. – A new colorimetric platform for ultrasensitive detection of protein and cancer cells based on the assembly of nucleic acids and proteins, Anal. Chim. Acta, 2015, **880**, 1-7.
181. Chu Y.W., B.Y. Wang, H-S. Lin, T-Y. Lin, Y-J. Hung, D.A. Engebretson, W. Lee, and J.R. Carey. – Layer by layer assembly of biotinylated protein networks for signal amplification, Chem. Commun., 2013, **49**(24), 2397-2399.
182. Dai P-P., J-Y. Li,. T. Yu, J-J. Xu, and H-Y. Chen. – Nanocrystal-based electrochemiluminescence sensor for cell detection with Au nanoparticles and isothermal circular double-assisted signal amplification, Talanta, 2015, **141**, 97-102.
183. Ding J., Y. Zhou, J. Li, L. Jiang, Z. He, and J-J. Zhu. – Screening of HER2 overexpressed breast cancer subtype in vivo by the validation of high-performance, long-term, and noninvasive

fluorescence tracer, Anal. Chem., 2015, **87**(24), 12290-12297.
184. Du F.Y., and H.W. Liu. – Preparation and properyies of anti-zystemin-quantum dot bioprobe, Guilin Ligong Daxue Xuebae (Journal of GuiLin University of Technology), 2012, **32**(2) [in Chinese].
185. Fan Y., L. Liu, D. Sun, H. Lan, H. Fu, T. Yang, Y. She, and C. Ni. – "Turn-off" fluorescent data array sensor based on double quantum dots coupled with chemometrics for highly sensitive and selective detection of multicomponent pesticides, Anal. Chim. Acta, 2016, **916**, 84-91.
186. Gu, Gucci Jijuan. – Proximity Ligation Assay for High Performance Protein Analysis in Medicine, PhD Thesis, Uppsala University, 2012, ISBN: 978-91-554-8449-1.
187. He S., Y. Zhang, P. Wang, X. Xu, K. Zhu, W. Pan, W. Liu, K. Cai, J. Sun, W. Zhang, and X. Jiang. – Multiplexed microfluidic blotting of proteins and nucleic acids by parallel, serpentine microchannels, Lab Chip, 2015, **15**, 105-112.
188. Hernaez M., D. Lopez-Torres, C. Elosua, I.R. Matias, and F.L. Arregui. – Sensitivity enhancement of a humidity sensor based on poly(sdodium phosphate) and poly(allylamine hydrochloride), Sensors, 2013 IEEE, November 306, 2013
189. Kale S., A. Kale, H. Gholap, A. Rana, R. Desai, A. Banpurkar, S. Ogale, and P. Shastry. – Quantum dot bioconjugate: as a western blot probe for highly sensitive detection of cellular proteins, J. Nanoparticle Res., 2012, **14**(3), art. 732.
190. Kaul Z., T. Yaguchi, R.Wadhwa, and S.C. Kaul. – Cell internalizing anti-mortalin antibody as a nanocarrier, Mortality Biology: Life, Stress and Death, 2012, pp. 323-335.
191. Knittel, Fabien. – Etude des interactions de surface et biocompatibilisation de nanocristaux fluorescents. PhD Thesis, Universite Paris, 2013 (please, see Google Scholar).
192. Krajewski S., M.M. Tsukamoto, X. Huang, and S.B. Krajewski. – Chapter 30. Nonstripping "Rainbow" and multiple antigen detection (MAD) western blotting, In: "Detection of Blotted Proteins: Methods and Protocols" (B.T. Kurien, R.H. Scofield, eds.), Meth. Mol. Biol., 2015, **1314**, 287.
193. Li C., B. Dong, and Q. Wang. – Properties of quantum dots: A new nanoprobe for bioimaging, In: "Handbook of Nanomaterials Properties" (B. Bhushan et al., eds.), Springer, Berlin, 2014, pp. 1263.
194. Liao D., J. Chen, W. Li, Q. Zhang, E. Wang, Y. Li, and C. Yu. – Fluorescence turn-on detection of a protein using cytochrome c as a quencher, Cgem. Commun. (Camb.), 2013, **49**, 9458-9460.
195. Liu H., X. Wu, X. Zhang, C. Burda, and J-J. Zhu. – Gold nanoclusters as signal amplification labels for optical immunosensors, J. Phys. Chem. C, 2012, **116**(3), 2548-2554.
196. Liu R., Y. Zhang, S. Zhang, W. Qiu, and Y. Gao. – Silver enhancement of gold nanoparticles for biosensing: from qualitative to quantitative, Appl. Spectrpscopy Rev., 2014, **49**(2), 121-138.
197. Liu S., W. Na, S. Pang, F. Shi, and X. Su. – A label-free fluorescence detection strategy for

lysozyme assay using CuInS2 quantum dots, Analyst, 2014, **139**, 3048-3054.

198. Liu C., D. Huang, T. Yang, and P.S. Cremer. – Simultaneous detection of multiple proteins that bind to the identical ligand in supported lipid bilayers, Anal. Chem., 2015, **87**(14), 7163-7170.

199. Massey M., M. Wu, E.M. Conroy, and W.R. Algar. – Mind your P`s and Q`s: the coming of age of semiconducting polymer dots and semiconducting quantum dots in biological applications, Curr. Opin. Biotechnol., 2015, **34**, 30-40.

200. Pavlov V. – Enzymatic growth of metal and semiconductor nanoparticles in bioanalysis, Particle & Particle Systems Characterization, 2014, **31**(1), 36-45.

201. Peng F., Y. Su, Y. Zhong, C. Fan, S-T. Lee, and Y. He. – Silicon nanomaterials platform for bioimaging, biosensing, and cancer therapy. Acc. Chem. Res., 2014, **47**(2), 612-623.

202. Rusling J.F., B. Munge, N.P. Sardesai, R. Malhotra, and B.V. Chikkaveeraiah. – Nanoscience-based electrochemical sensors and arrays for detection of cancer biomarker proteins, NanoBioElectrochemistry, 2013, 1-26.

203. Shabani A., and M. Tabrizian. – Design of a universal biointerface for sensitive, selective, and multiplex detection of biomarkers using surface Plasmon resonance imaging, Analyst, 2013, **138**, 6052-6062.

204. Sheng Z., D. Hu, P. Zhang, P. Gong, D. Gao, S. Liu, and L. Cai. – Cation exchange in aptamer-conjugated CdSe nanoclusters: a novel fluorescence signal amplification for cancer cell detection, Chem. Commun., 2012, **48**(35), 4202-4204.

205. Sun Y., and X. Gao. – Eliminating the animal scpecies contrains in antibody selection for mulricolor immunoassays, Bioconjug. Chem., 2017, **28**(5), 1499-1504.

206. Urrutia A., J. Goicoechea, and F.J. Arregui. – Optical fiber sensors based on nanoparticle-embedded coatings, Journal of Sensors, 2015, art. ID 805053, pp. 1-18 (please, see Google Scholar).

207. Wang J., and T.J. Mountziaris. – Homogeneous immunoassays based on fluorescence emission intensity variations of zinc selenide quantum dot sensors, Biosensors & Bioelectronics, 2013, **41**, 143-149.

208. Washburn A.L., W.W. Shia, K.A. Lenkeit, S-H. Lee, and R.C. Bailey. – Multiplexed cancer biomarker detection using chip-integrated silicon photonic sensor arrays, Analyst, 2016, **141**(18), 5358-5365.

209. Wu H.F., J. Gopal, H.N. Abdelhamid, and N. Hasan. – Quantum dot applications endowing novelty to analytical proteomics, Proteomics, 2012, **12**(19-20), 2949-2961.

210. Yao G.H., R.P. Liang, X.D. Yu, C.F. Huang, and L. Zhang. – Target-targeting multiple-cycle amplification strategy for ultrasensitive detection of adenosine based on surface plasma resonance techniques, Anal. Chem., 2015, **87**(2), 929-936.

211. Ye F., P.B. Smith, C. Wu, and D.T. Chiu. – Ultrasensitive detection of proteins on western blots with semiconducting polymer dots, In: “Macromolecular Rapid Communications”, Special Issue: “Fluorescent Biosensors”, 2013, **34**(9), 785-790.

212. Zhang Y., and T.H. Wang. – Quantum dot enabled molecular sensing and diagnostics, Theranostics, 2012, **2**(7), 631-654.

213. Zhang Y., D. Yang, L. Weng, and L. Wang. – Early lung cancer doagnosis by biosensors, Int. J. Mol. Sci., 2013, **14**(8), 15479-15509.

214. Zhang P., H. Li, J. Chen, H. Han, and W. Ma. – Simple and sensitive detection of HbsAg by using quantum dots nanobeads based dot-blot immunoassay, Theranostics, 2014, **4**(3), 307-315.

215. Zhang Y., C. Dong, L. Su, H. Wang, X. Gong, H. Wang, J. Liu, and J. Chang. – Multifunctional microspheres encoded with upconverting nanocrystals and magnetic nanoparticles for rapid separation and immunoassays, ACS Appl. Mater. Interfaces, 2016, **8**(1), 745-753.

216. Zhou B., X.L. Xiao, L.L. Xu, L. Zhu, L. Tan, H. Tang, Y.Y. Zhang, Q.J. Xie, and S.Z. Yao. – Electrochemical immunoassay on expression of integrin beta 1 on tumor cells and drug-resistant tumor cells, Biosensors & Bioelectronics, 2012, **38**(1), 389-395.

217. Zhou W-T., X. Cao, J-N. Yu, X-M. Xu, and S-S. Tong. – Quantum dots coupling technology and its application in Western blot, Chin. J. Pharm. Anal., 2015, **35**(4), 569 [in Chinese].

Bakalova R., Z. Zhelev, H. Ohba, and Y. Baba. – Quantum dot-conjugated hybridization probes for preliminary screening of siRNA sequences, J. Am. Chem. Soc., 2005, 127(32), 11328-11335.

218. Abualnaja K.M., L. Siller, and B.R. Horrocks. – Silver nanoparticles-enhnaced luminescence spectra of silicon nanocrystals, Int. J. Chem. Mol. Nucl. Metal. Eng., 2014, **8**(11), 1153-1161.

219. Dupoteau F., and S. Dekel. – Single-use handheld diagnostic test device, and an associated system and method for testing biological and environmental test samples, US Patent No. US9459200 B2, 2016.

220. Dwiecki K., G. Neunert, M. Nogala-Kalucka, and K. Polewski. – Fluorescence quenching studies on the interaction of catechin-quinone with CdTe quantum dots. Mechanism elucidation and feasibility studies, Spectrochim. Acta Part A: Mol. Biomol. Spectroscopy, 2015, **149**, 523-530.

221. Fournier-Bidoz S., and W.C.W. Chan. – Flow focusing method and system for forming concentrated volumes of microbeads, and microbeads formed futher thereto. US Patent 8551763 B2, Publ. October 3, 3013.

222. Fournier-Bidoz S., and W.C.W. Chan. – Systems and methods for manufacturing quantum dot-doped polymer microbeads. US Patent No. US8597729 B2, Publ. December 3, 3013.

223. Fournier-Bidoz S., and W.C.W. Chan. – Flow focusing method and system for forming concentrated volumes of microbeads, and microbeads formed further thereto. US Patent No. US9695482 B2, Publ. July 4, 3017.

224. Harun N.A., M.J. Benning, B.R. Horrocks, and D.A. Fulton. – Gold nanoparticles-enhanced luminescence of silicon quantum dots co-encapsulated in polymer nanoparticles, Nanoscale, 2013, **5**(9), 3817-3827.
225. Hildebrandt N., C.M. Spillmann, W.R. Algar, T. Pons, M.H. Stewart, E. Oh, K. Susumi, S.A. Diaz, J.B. Delehanty, and I.L. Medintz. – Energy transfer with semiconductor quantum dot bioconjugates: A versatile platform for biosensing, energy harvesting, and other developing applications, Chem. Rev., 2017, **117**(2), 536-711.
226. Huang X., Y. Liu, B. Yung, Y. Xiong, and X. Chen. – Nanotechnology-enhanced no-wash biosensors for in vitro diagnostics of cancer, ACS Nano, 2017, **11**(6), 5238-5292.
227. Jin H., Y. Liu, T. Xu, X. Qu, F. Bian, and Q. Sun. – Quantum dots-ligand complex as ratiometric fluorescent nanoprobe for visual and specific detection of G-quadruplex, Anal. Chem., 2016, **88**(21), 10411-10418.
228. Krejcova L., D. Hynek, P. Kopel, V. Adam, J. Hubalek, L. Trnkova, and R. Kizek. – Paramagnetic particles isolation of influenza oligonucleotide labeled with CdS QDs, Chromatographia, 2013, **76**(7-8), 355-362.
229. Krejcova L., D. Hynek, P. Kopel, M.A.M. Rodrigo, K. Tmejova, L. Trnkova, V. Adam, J. Hubalek, and R. Kizek. – Quantum dots for electrochemical labeling of neuraminidase genes of H5N1, H1N1 and H3N2 influenza, Int. J. Electrochem. Sci., 2013, **8**, 4457-4471.
230. Lee J., W.C.W. Chan, Q. Xiang, and J. Klostranec. System and method of deconvolving multiplexed fluorescence spectral signals generated by quantum dot optical coding technology, US Patent 8360321 B2, Publ. January 29, 2013.
231. Li J., W. Wang, D. Sun, J. Chen, P-H. Zhang, JJ-R. Zhang, Q. Min, and J-J. Zhu. – Aptamer-functionalized silver nanoclusters-mediated cell type-specific siRNA delivery and tracking, Chem. Sci., 2013, **4**, 3514-3521.
232. Medintz I., N. Hildebrandt, W.R. Algar, M. Massey, and U.J. Krull. – Chapter 12. Semiconductor quantum dots and FRET. In: "FRET – Forster Resonance Energy Transfer: From Theory to Application", Wiley-VCH Verlag, 2013.
233. Miao Y., J. Lv, Y. Li, and G. Yan. – Construction of biomolecular sensors based on quantum dots, RSC Adv., 2016, **6**, 109009-109022.
234. Midha K., S. Kalra, and M. Nagpal. – Quantum dots in cancer therapy, Int. J. Curr. Sci. Technol., 2015, **3**(10), 130-139.
235. Mohammadi J., A. Moattari, N. Sattarahmady, N. Pirbonyeh, H. Yadegari, and H. Heli. – Electrochemical biosensing of influenza A subtype genome based on meso/macroporous cobalt(II) oxide nanoflakes-applied to human samples, Anal. Chim. Acta, 2017, **979**, 51-57.
236. Pavlov V. – Enzymatic growth of metal and semiconductor nanoparticles in bioanalysis, Particle & Particle Systems Characterization, 2014, **31**(1), 36-45.
237. Seker U.O.S., and H.V. Demir. – Biomedical and biochemical tools for Forster resonance energy transfer enabled by colloidal quantum dot nanocrystals for life sciences, UV-VIS and Photoluminescence Spectroscopy for Nanomaterials Characterization, Springer, 2013, pp.

531-560.
238. Wu M., and W.R. Algar. – Chapter 11: Semiconductor quantum dots and energy transfer for optical sensing and bioanalysis: applications, In: "Nanobiosensors and Nanobioanalyses:, M.C. Vestergaard et al. (Eds.), Springer, Japan, 2015, p. 197.
239. Xiang, Q., W.C. Chan, and J.M. Klostranec. – Microfluidic system and method to test for target molecules in a biological sample, US Patent No. US9360476 B2, 2016.
240. Xue X., Z. Zhuang, F. Huang, and Z. Lin. – Understanding the occurrence of the maximum band-edge photoluminescence of TGA-capped CdS QDs via growth kinetic study, Crystal Growth & Design, 2013, **13**(12), 5220-5228.
241. Xun Z., X. Zhao, and Y. Guan. – Improved thermal cycling durability and PCR compatibility of polymer coated quantum dot, Nanotechnology, 2013, **24**, art. 355504.
242. Yan W., L. Xu, C.L. Xu, W. Ma, H. Kuang, L.B. Wang, and N.A. Kotov. – Self-assembly of chiral nanoparticle pyramids with strong R/S optical activity, J. Am. Chem. Soc., 2012, **134**(36), 15114-15121.
243. Yoo J.H., I.S. Yoo, W.J. Yoon, and J.S. Kim. – The detection of p53 gene via fluorescence quenching of quantum dot in microfluidic chip, J. Nanosci. Nanotechnol., 2012, **12**(5), 4109-4114.
244. You J.H., I.S. Yoo, W.J. Yoon, and J.S. Kim. – The detection of p53 gene via fluorescence quenching of quantum dot in microfluidic chip, J. Nanossci. Nanotechnol., 2012, **12**(5), 4109-4114.
245. Zhang Y., and T.H. Wang. – Quantum dot enabled molecular sensing and diagnostics, Theranostics, 2012, **2**(7), 613-654.
246. Zhang M., Y-Q. Liu, C-Y. Yu, B-C. Yin, and B-C. Ye. – Multiplexed detection of microRNAs by tuning DNA scaffolded silver nanoclusters, Analyst, 2013, **138**, 4812-4817.
247. Zhou J., Y. Yang, and C-Y. Zhang. – Towards biocompatible semiconductor quantum dots: from biosynthesis and bioconjugation to biomedical application, Chem. Rev., 2015, **115**(21), 11669-11717.
248. Zhu J.J., J.J. Li, and F.F. Cheng. – Chapter 3: Quantum dot-fluorescence-based biosensing, In: "Quantum Dots for DNA Biosensing", Springer, 2013, p. 25.
249. Zrazhevskiy P., S.R. Dave, and X.H. Gao. – Addressing key technical aspects of quantum dot probe preparation for bioassays, Particle & Particle Systems Characterization, 2014, **31**(12), 1291-1299.
250. Zurek M., M. Kremlova, L. Nejdl, D. Hynek, P. Kopel, V. Adam, and R. Kizek. – Characterization of gold nanoparticles-modified CdTe quantum dots by scanning electrochemical microscopy, NanoCon2013, Brno, Czech Republic, October 16-18, 2013 [nanocon2013.tanger.cz] (please, see Google Scholar).

Jose R., Z. Zhelev, T. Nagase, R. Bakalova, Y. Baba, and M. Ishikawa. – Self-surface passivation of CdX (X=Se, Te) quantum dots, J. Nanosci. Nanotechnol., 2006, 6(3), 618-623.

251. Beal J.H.L., Y. Xu, N. Al-Salim, and W.M. Arnold. – Dispersion polymerization of uniform cross-linked polystyrene microspheres in butan-1-ol, J. Appl. Polymer Sci., 2016, **133**(10).
252. Huang Y-Y., S.K. Sharma, T. Dai, H. Chung, A. Yaroslavsky, M. Garcia-Diaz, J. Chang, L.Y. Chiang, and M.R. Hamblin. – Can nanotechnology potentiate photodynamic therapy? In: "Nanotechnology Reviews" (Ed., C. Kumar), 2012, **1**(2), 111-146.
253. Singh M.K., P.A. Hassan, and A. Kadam. – Hole scavenging and aging effect on the photoluminescence of CdS quantum dots, Mater. Chem. Phys., 2014, **146**(1-2), 136-140.

Jose R., <u>Z. Zhelev</u>, R. Bakalova, Y. Baba, and M. Ishikawa. – White-light-emitting quantum dots synthesized at room temperature, Appl. Phys. Lett., 2006, 89, 013115-013117.

254. Beal J.H.L., Y. Xu, N. Al-Salim, and W.M. Arnold. – Dispersion polymerization of uniform cross-linked polystyrene microspheres in butan-1-ol, Appl. Polymer Sci., 2016, **133**(10), 43103.
255. Dolai S., P.R. Nimmala, M. Mandal, B.B. Muhoberac, K. Dria, A. Dass, and R. Sardar. – Isolation of bright blue light-emitting CdSe nanocrystals with 6.5 kDa core in gram scale: High photoluminescence efficiency controlled by surface ligand chemistry, Chem. Mater., 2014, **26**(2), 1278-1285.
256. Fang X.M., M. Roushan, R.B. Zhang, J. Peng, H.P. Zeng, and J. Li. – Tuning and enhancing white light emission of II-VI based inorganic-organic hybrid semiconductors as single-phased phosphors, Chem. Mater., 2012, **24**(10), 1710-1717.
257. Ge Y., Z.H. Shah, C. Wang, J. Wang, W. Mao, S. Zhang, and R. Lu. – In situ encapsulation of ultrasmall CuO quantum dots with controlled band-gap and reversible thermochromism, ACS Appl. Mater. Inerfaces, 2015, **7**(48), 26437-26444.
258. Harrell S.M., J.R. McBrige, and S.J. Rosenthal. – Synthesis of ultrasmall and magic-sized CdSe nanocrystals, Chem. Mater., 2013, **25**(8), 1199-1210.
259. Kaur M., and C.M. Nagaraja. – Template-free synthesis of CdS microspheres composed of ultrasmall nanocrystals and their photocatalytic study, RSC Adv., 2014, **4**, 18257-18263.
260. Kaur M., N.K. Gupta, and C.M. Nagaraja. – One-pot, template-free synthesis of spherical ZnS nanocrysatls using a new S^{2-} source and their photocatalytic study, CrystEngComm, 2015, **17**, 2359-2367.
261. Kshirsagar, Aditya. – Investigations into the formation of nanocrystalline quantum dot thin films by mist deposition process, PhD Thesis, Pennsylvania State University, US, 2012)please, see Google Scholar).
262. Kumakura M., A. Kinan, and T. Moriyasu. – Influence of dilution with organic solvents on emission spectra of CdSe/ZnS QDs, In: SPIE Technologies and Applications of Structured Light, Yokohama, Japan, April 18, 2017, art. 1025219.
263. Lawrence K.N., S, Dolai, Y-H. Lin, A. Dass, and R. Sardar. – Enhancing the physicochemical and photophysical properties of small (<2.0 nm) CdSe nanoclusters for

intracellular imaging applications, RSC Adv., 2014, **4**, 30742-30753.

264. Liu X., Y. Jiang, W. Guo, X. Lan, F. Fu, W. Huang, and L. Li. – One-pot synthesis of CdSe magic-sized nanocrystals using selenium dioxide as the selenium source compound, Chem. Eng. J., 2013, **230**, 466-474.

265. Newton J.C., K. Ramasamy, M. Mandal, G.K. Joshi, A. Kumbhar, and R. Sardar. – Low-temperature synthesis of magic-sized CdSe nanoclusters: Influence of ligands on nanocluster growth and photophysical properties, J. Phys. Chem. C, 2012, **116**(7), 4380-4389.

266. Oennyccok T.J., J.R. McBride, S.J. Rosenthal, S.J. Pennycook, and S.T. Pantelides. – Dynamic fluctuations in ultrasmall nanocrystals induce white light emission, Nano Lett., 2012, **12**(6), 3038-3042.

267. Pennycook, Timothy John. – Sensity functional theory and scanning transmission electron microscopy: Synergistic tools for materials investigation, PhD Thesis, Nashville University, Tennessee, 2012 (please, see Google Scholar).

268. Pennycook T.J., J.R. McBride, S.J. Rosenthal, S.J. Pennycook, and S.T. Pantelides. – Dynamic fluctuations in ultrasmall nanocrystals induce white light emission, Nano Lett., 2012, **12**(6), 3038-3042.

269. Pilla V., E. Munin, and N.O. Dantas. – Chapter 1: Photothermal Spectroscopic Characterization in CdSe/ZnS and CdSe/CdS Quantum Dots: A Review and New Applications, In: “Quantum Dots – A Variety of New Applications” (Ed. A. Al-Ahmadi), InTech Europe, 2012, 1-23, ISBN: 978-953-51-0483-4 (please, see Google Scholar).

270. Ren X.L., Q.Y. Li, Y.N. Xue, X.F. Zhai, and M. Yu. – Solvothermal synthesis of well-dispersed ZnSe microspheres, J. Colloid Interface Sci., 2013, **389**, 53-60.

271. Sohlberg K., T.J. Pennycook, W. Zhou, and S.J. Pennycook. – Insights into the physical chemistry of materials from advances in HAADF-STEM, Phys. Chem. Chem. Phys., 2015, **17**, 3982-4006.

272. Spivey A.G.V.E. – Group velocity dispension of CdSSe/ZnS core-shell colloidal quantum dots measured with white light interferometry, Optics Commun., 2016, **363**, 31-36.

273. Woo H-J., G-D. Kim, H-W. Choi, and J-K. Kim. – Structural and optical characterization og GaN nanostructures formed by using N+ implantation into GaAs at various temperature, J. Korean Phys. Soc., 2012, **60**(3), 383-387.

274. Zhang Z., D. Liu, D. Li, K. Huang, Y. Zhang, Z. Shi, R. Xie, M-Y. Han, Y. Wang, and W. Yang. – Dual emissive Cu:InP/ZnS/InP/ZnS nanocrystals: Single-source “greener” emitters with flexibly tunable emission from visible to near-infrared and their application in white light-emitting diodes, Chem. Mater., 2015, **27**(4), 1405-1411.

275. Zhang Z., S. Luan, K. Huang, Y. Zhang, Z. Shi, R. Xie, and W. Yang. – Single-phase dual emissive Cu:CdS-ZnSe core-shell nanocrystals with „zero self-absorption“ and their application in white light emitting diodes, J. Mater. Chem. C, 2015, **3**, 3614-3622.

276. Zholudov Yu.T., C.L. Sajti, N.N. Slipchenko, and B.N. Chichkov. – Generation of fluorescent CdSe nanocrystals by short-pulse laser fragmentation, J. Nanoparticle Res., 2015, **17**,

490.

<u>Zhelev Z.</u>, R. Bakalova, H. Ohba, R. Jose, Y. Imai, and Y. Baba. – Uncoated, broad-fluorescent, and size-homogeneous CdSe quantum dots for bioanalyses, Anal. Chem., 2006, 78(1), 321-330.

277. Chaniotakis N., and R. Buiculescu. – Chapter 11: Semiconductor quantum dots in chemical sensors and biosensors. In: "Nanosensors for Chemical and Biological Applications: Sensing with Nanotubes, Nanowires and Nanoparticles", K.C. Honeychurch (Ed.), Woodhead Publ., 2014, p. 267.

278. Dave P.N. – Synthesis and characterization of fluorescent CdSe quantum dots, J. Indian Chem. Soc., 2012, **89**(3), 349-355.

279. Deng D., J. Xia, J. Cao, L. Qu, J. Tian, Z. Qian, Y. Gu, and Z. Gu. – Forming highly fluorescent near-infrared emitting PbS quantum dots in water using glutathione as surface-modifying molecule, J. Colloid Interface Sci., 2012, **367**(1), 234-240.

280. Gegout C., M.L. McAtee, N.M. Bennett, L.M.V. Tillekeratne, and J.R. Kirschoff. – Synthesis and characterization of luminescent CdSe/ZnSe/ZnS cholinomimetic quantum dots, Nanoscale, 2012, **4**(15), 4719-4725.

281. He Y., J. Tian, K. Hu, J. Zhang, S. Chen, Y. Jiang, Y. Zhao, and S. Zhao. – An ultrasensitive quantum dots fluorescent polarization immunoassay based on the antibody modified Au nanoparticles amplifying for the detection of adenosine triphosphate, Anal. Chim. Acta, 2013, **802**, 67-73.

282. Hu L., C. Zhang, G. Zeng, G. Chen, J. Wan, Z. Guo, H. Wu, Z. Yu, Y. Zhou, and J. Liu. – Metal-based quantum dots: synthesis, surface modification, transport and fate in aquatic environments and toxicity to microorganisms, RSC Adv., 2016, **6**(82), 78595-78610.

283. Huang C.P., C.F. Chao, M.Y. Shen, T.M. Che, and Y.K. Li. – Preparation of high-performance water-soluble quantum dots for biorecognition through fluorescence resonance energy transfer, Chemistry-AN Asian Journal, 2012, **7**(12), 2848-2853.

284. Hynek D., K. Tmejova, V. Milosavljevic, A. Moulick, P. Kopel, V. Adam, and R. Kizek. – Electrochemical characterization of various synthesized quantum dots and the effect of aging and storage way, Int. J. Electrochem. Sci., 2015, **10**, 1117-1127.

285. Karakoti A.S., R. Shukla, R. Shanker, and S. Singh. – Surface functionalization of quantum dots for biological applications, Adv. Colloid Interface Sci., 2015, **215**, 28-45.

286. Li Y., L. Deng, C.Y. Deng, Z. Nie, M.H. Yang, and S.H. Si. – Simple and sensitive aptasensor based on quantum dot-coated silica nanospheres and the gold screen-printed electrode, Talanta, 2012, **99**, 637-642.

287. Liang Y., J.E. Thorne, M.E. Kern, and B.A. Parkinson. – Sensitization of ZnO single crystal electrodes with CdSe quantum dots, Langmuir, 2014, **30**(42), 12551-12558.

288. Liu H., X. Wu, X. Zhang, C. Burda, and J-J. Zhu. – Gold nanoclusters as signal

amplification labels for optical emmunosensors, J. Phys. Chem. C, 2012, **116**(3), 2548-2554.
289. Liu H-Y., and J-J. Zhu. – Preparation of electrochemical immunosensor using gold nanoclusters as signal amplification labels, Chinese J. Anal. Chem., 2013, 41(5), 658-663.
290. Liu J-W., D-Y. Deng, Y. Yu, F-F. Liu, B-X. Lin, Y-J. Cao, X-G. Hu, and J-Z. Wu. – In situ detection of salicylic acid binding sites in plant tissues, Luminescence, 2015 **30**, 18-25.
291. Maxwell, Deborah Bokin. – Iron-molybdenum cofactor: Catalyst in dihydrogen production and role of nifen in the FEMO-CO biosynthetic pathways, PhD Thesis, University of Central Florida, US, 2012.
292. Maxwell, Deborah Bokin. – Methods and system for photo-activated hydrogen generation, US patent No. US20150225742 A1, 2015 (please, see Google Scholar).
293. McAtee, Maria L. – Synthetic strategies and design of highly luminescent cholinomimetic quantum dots, PhD Thesis, University of Toronto, Canada, 2012.
294. Mei J., L-Y. Yang, L. Lai, Z-Q. Xu, C. Wang, J. Zhao, J-C. Jin, F-L. Jiang, and Y. Liu. – The interaction between CdSe quantum dots and yeast *Saccharomyces cerevisiae*: Adhesion of quantum dots to the cell surface and the protection effect of ZnS shell, Chemosphere, 2014, **112**, 92-99.
295. Milla M.J., J.M. Ulloa, and A. Guzman. – Strong influence of the humidity on the electrical properties of InGaAs surface quantum dots, ACS Appl. Mater. Interfaces, 2014, **6**(9), 6191-6195.
296. Pavlov V. – Enzymatic growth of metal and semiconductor nanoparticles in bioanalysis, Particle & Particle Systems Characterization, 2014, **31**(1), 36-45.
297. Tang H., C. Zhou, R. Wu, M. Mao, H. Shen, and L.S. Li. – The enhanced fluorescence properties & colloid stability of aqueous CdSe/ZnS QDs modified with N-alkylated poly(ethyleneimine), New J. Chem., 2015, **39**, 4334-4342,.
298. Torkzaban S., S.A. Bradford, J. Wan, T. Tokunaga, and A. Masoudih. – Release of quantum dot nanoparticles in porous media: role of cation exchange and aging time, Environ. Sci. Technol., 2013, **47**(20), 11528-11536.
299. Wu Y., P. Xue, Y. Kang, and K.M. Hui. – Highly specific and ultrasensitive graphene-enhanced electrochemical detection of low-abundance tumor cells using silica nanoparticles coated with antibody-conjugated quantum dots, Anal. Chem., 2013, **85**(6), 3166-3173.
300. Wu Y., P. Xue, K.M. Hui, and Y. Kang. – Electrochemical- and fluorescent-mediated signal amplifications for rapid detection of low-abundance circulating tumor cells on a paper-based microfluidic immunodevice, ChemElectroChem, 2014, **1**(4), 722-727.
301. Xie L., L. You, and X. Cao. – Signal amplification aptamer biosensor for thrombin based on a glassy carbon electrode modified with graphene, quantum dots and gold nanoparticles, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 2013, **109**, 110-115.
302. Xiong X., Y. Tang, L. Zhang, and S. Zhao. – A label-free fluorescent assay for free chlorine in drinking water based on protein-stabilized gold nanoclusters, Talanta, 2015, **132**,

790-795.
303. Xue B., J. Cao, D. Deng, J. Xia, J. Jin, Z. Qian, and Y. Gu. – Four strategies for water transfer of oil-soluble NIR-emitting PbS quantum dots, J. Mater. Sci.: Materials in Medicine, 2012, **23**(3), 723-732.
304. Zarschler K., L. Rocks, N. Licciardello, L. Boselli, E. Polo, K.P. Garcia, L. De Cola, H. Stephan, and K.A. Dawson. – Ultrasmall inorganic nanoparticles: State-of-the-art and perspectives for biomedical applications, Nanomedicine: Nanotechnol. Biol. Med., 2016, **12**(6), 1663-1701.
305. Zhang X., and S-N. Ding. – General strategy to fabricate electrochemiluminescent sandwich-type nanoimmunosensors using CdTe@ZnS quantum dots as luminescent labels and Fe_3O_4@SiO_2 nanoparticles as magnetic separable scaffolds, ACS Sens, 2016, **1**(4), 358-365.
306. Zhao Q., X. Rong, H. Ma, and G. Tao. – Aqueous synthesis of CdSe and CdSe/CdS quantum dots with controllable introduction of Se and S sources, J. Mater. Sci., 2013, **48**, 2135-2141.
307. Zhao Q., X.L. Rong, H.B. Ma, and G.H. Tao. – Aqueous synthesis of CdSe and CdSe/CdS quantum dots with controllable introduction of Se and S sources, J. Mater. Sci., 2013, **48**(5), 2135-2141.
308. Zhu D., W. Li, H-M. Wen, S. Yu, Z-Y. Miao, A. Kang, and A. Zhang. – Silver nanoparticle-enhanced time-resolved fluorescence sensor for $VEGF_{165}$ based on Mn-doped ZnS quantum dots, Biosensors and Bioelectronics, 2015, **74**, 1053-1060.

Zhelev Z., H. Ohba, and R. Bakalova. – Single quantum dot micelles coated with silica shell as potentially non-cytotoxic fluorescent cell tracers, J. Am. Chem. Soc., 2006, 128(19), 6324-6325.

309. Acebron M., J.F. Galisteo-Lopez, D. Granados, J. Lopes-Ogalla, J.M. Gallego, R. Otero, C. Lopez, and B.H. Juarez. – Protective ligand shells for luminescent SiO_2-ciated alloyed semiconductor nanocrystals, ACS Appl. Mater. Interfaces, 2015, **7**(12), 6935-6945.
310. Brandt Y.I., T. Mitchell, G.A. Smolyakov, M. Osinski, and R.S. Hartley. – Quantum dot assisted tracking of the intracellular protein cyclin E in Xenopus laevis embryos, J. Nanobiotechnol., 2015, **13**, 31.
311. Cai L., W. Wang, X-Y. Yang, P. Zhou, H-W. Tang, J. Rao, and D-W. Pang. – Preparation of fluorescent-magnetic silica nanoprobes for recognition and separation of human lung cancer cells, Austin J. Anal. Pharm. Chem., 2014, **1**(6), 1027.
312. Cervantes-Mejita V., E. Baca-Solis, J. Caballero-Jimenez, R. Merino-Garcia, J. Cruz-Gatica, G. Moreno-Martinez, and Y. Reyes-Ortega. – Branched polyamines functionalized with proposed reaction pathwaysbase on ^{1}H-NMR, atomic absorption and IR spectroscopies, Am. J. Anal. Chem., 2014, **5**(16), Art. No. 51711.
313. Chang L., S. Chen, J. Chu, and X. Li. – Co-assembly of CdTe and Fe_3O_4 with molecularly imprinted polymer for recognition and separation of endocrine disruption chemicals, Appl. Surface Sci., 2013, **284**, 745-749.

314. Chatterjee K., S. Sarkar, K.J. Rao, and S. Paria. – Core/shell nanoparticles in biomedical applications, Adv. Colloid Interface Sci., 2014, **209**, 8-39.
315. Chatterjee S., and U. Maitra. – A novel strategy towards designing a CdSe quantum dot-metallohydrogel composite material, Nanoscale, 2016, **8**, 14979-14085.
316. Chatterjee S., and U. Maitra. – Hierarchical self-assembly of photoluminescent CdS nanoparticles into a bile acid derived organogel: morphological and photophysical properties, Phys. Chem. Chem. Phys., 2017, **19**(27), 17726-17734.
317. Chen P.J., S.H. Hu, W.T. Hung, S.Y. Chen, and D.M. Liu. – Geometrical confinement of quantum dots in porous nanobeads with ultraefficient fluorescence for cell-specific targeting and bioimaging, J. Mater. Chem., 2012, **22**(19), 9568-9575.
318. Chen, Li. – Functionalization of cellulose nanocrystals with inorganic nanoparticles, PhD Thesis, University of Waterloo, August 11, 2016 (please, see Google Scolar).
319. Choi A.O., and D. Maysinger. – Intranasal fluorescent nanocrystals for longitudinal in vivo evaluation of cerebral microlesions, Pharm. Nanotechmol., 2013, **1**, 93-104.
320. Dabrowski J.M., B. Pucelic, A. Regiel-Futyra, M. Brindell, O. Mazuryk, A. Kyziol, G. Stochel, W. Macyk, and L.G. Amaut. – Engineering of relevant photodynamic processes through structural modifications of metallotetrapyrrolic photosensitizers, Coordination Chemistry Reviewes, 2016, **325**, 67-101.
321. Feng Y., N. Panwar, D.J.H. Tng, S.C. Tjin, K. Wang, and K-T. Yong. – The application of mesoporous silica nanoparticle family in cancer theranostics, Coordination Chemistry Rev., 2016, **319**, 86-109.
322. Gao M., Y. Hong, B. Chen, Y. Wang, W. Zhou, W.W.H. Wong, J. Zhou, T.A. Smith, and Z. Zhao. – AIE conjugated polyelectrolytes based on tetraphenylethene for efficient fluorescence imaging and lifetime imaging of living cells, Polymer Chem., 2017, **8**(26), 3862-3866.
323. Han J., J. Sun, Y. Li, Y. Duan, and T. Han. – One-pot synthesis of a mechanochromic AIE nogen: implication for rewritable optical data storage, J. Mater. Chem. C, 2016, **4**(39), 9287-9293.
324. He F., Y. Chen, C. Li, X. Deng, B. Liu, B. Liu, S. Huang, Z. Hou, Z. Cheng, and J. Lin. – Controllable drug release system based on phase change molecules as gatekeepers for bimodal tumor therapy with enhanced efficiency, RSC Adv., 2016, **6**, 65600-65606.
325. Huang L., Z.H. Luo, and H.Y. Han. – Organosilane micellization for direct encapsulation of hydrophobic quantum dots into silica beads with highly preserved fluorescence, Chem. Commun., 2012, **48**(49), 6145-6147.
326. Huang L., Q. Wu, J. Wang, M. Foda, J. Liu, K. Cai, and H. Han. – A brilliant sandwich type fluorescent nanostructure incorporating a compact quantum dot layer and versatile silica substrates, Chem. Commun. (Camb.), 2014, **50**, 2896-2899.
327. Janczak C.M., and C.A. Aspinwall. – Composite nanoparticles: the best of two worlds, Anal. Bioanal. Chem., 2012, **402**(1), 83-89.

328. Jeon S.M., S. Choi, K. Lee, H-S. Jung, and J. Yu. – Significantly improved stability of silver nanodots via nanoparticles encapsulation, J. Photochem. Photobiol. A, 2017 [E-pub: May 31, 2017].

329. Jin Y., and Y. Qian. – Photophysical properties, aggregation-induced fluorescence in nanoaggregates and cell imaging of 2,5-bisaryl 1,3,4-oxadiazoles, New J. Chem., 2015, **39**(4), 2872-2880.

330. Karakoti A.S., R. Shukla, R. Shanker, and S. Singh. – Surface functionalization of quantum dots for biological applications, Adv. Colloid Interface Sci., 2015, **215**, 28-45.

331. Kumar R., S. Sandhu, P. Singh, and S. Kumar. – Water dispersed fluorescent organic aggregates for the picomolar detection of ClO_4^- in water, soil and blood serum and the attogram detection of ClO_4^- in the solid state by a contrast mode method, J. Mater. Chem. C, 2016, **4**, 7420-7429.

332. Lee A-R., and W-S. Han. – Carbazole functionalized silole: Synthesis, aggregation-induced emission, and electrochemical polymerization, Bull. Korean Chem. Soc., 2015, **36**(7), 1758-1763.

333. Li Q., L. Dong, X. Wang, J. Huang, H. Xie, and C. Xiong. – Self-assembled quantum dots-polyhedral oligomeric silsesquioxane nanohybrids with enhanced photoluminescence, Scripta Materialia, 2012, **66**(9), 656-649.

334. Li Y., B. Shen, L. Liu, H. Xu, and X.H. Zhong. – Stable water-soluble quantum dots capped by poly(ethyleneglycol) modified dithiocarbamide, Colloids & Surfaces A – Physicochemical and Engineering Aspects, 2012, **410**, 144-152.

335. Li C., and N. Murase. – Formation mechanism of highly luminescent silica capsules incorporating multiple hydrophobic quantum dots with various emission wavelengths, J. Coloid and Interface Sci., 2013, **411**, 82-91.

336. Li C., Z. Lu, Q. Zhang, J. Ge, S. Aloni, Z. Shi, and Y. Yin. – Confined growth of CdSe quantum dots in colloidal mesoporous silica for multifunctional nanostructures, Science China Materials, 2015, **58**, 481-489.

337. Li Z., A. Dergham, H. McCulloch, Y. Qin, X. Yang, J. Zhang, and X. Gao. – Facile synthesis of Cd-doped CdTe QDs with optimized properties for optical/MR multimodal imaging, J. Biol. Inorg. Chem. (Spinger), 2017, 1-13 [E-pub: September 1, 2017].

338. Lin Y., C. Wang, L. Li, H. Wang, K. Liu, K. Wang, and B. Li. – Tunable fluorescent silica-coated carbon dots: A synergistic effect for enhancing the fluorescence sensing of extracellular Cu^{2+} in rat brain, ACS Appl. Mater. Interfaces, 2015, **7**(49), 27262-27270.

339. Liu X., M. Tang, T. Zhang, Y. Hu, S. Zhang, L. Kong, and Y. Xue. – Determination of a threshold dose of reduce or eliminate CdTe-induced toxicity in L929 cells by controlling the exposure dose, PLoS One, 2013, **8**(4).

340. Liu H., Y. Liang, N. Li, and G. Wu. – A novel “top-down” strategy for preparation organosilica micelle encapsulating multiple hydrophobic QDs as efficient fluorescent label, Crystal Research & Technology, 2017, **52**(2), art. 1600328.

341. Liu J., C. Chen, S. Ji, Q. Liu, D. Ding, D. Zhao, and B. Liu. – Long wavelength excitable NIR fluorescent nanoparticles with aggregation-induced emission characteristics for iamge-guided tumor resection, RCS Chem. Sci., 2017, **8**, 2782-2789.
342. Ma Y., Y. Li, S. ma, and X. Zhong. - Highly bright water-soluble silica coated quantum dots with excellent stability, J. Mater. Chem. B, 2014, **31**(2), 5043-5051.
343. Manikandan I., C-H. Chang, C-L. Chen, V. Sathishm W-S. Li, and M. Malathi. – Aggregation induced emission enhancement (AIEE) characteristics of quinoline based compounds – a versatile fluorescent probe for pH, Fe(III) ion, BSA binding and optical cell imaging, Spectrochimica Acta Part A: Mol. Biomol. Spectroscopy, 2017, **182**, 58-66.
344. Mary K.A.A., N.V. Unnikrishnan, and R. Philip. – One-pot synthesis of silica-hybridized Ag_2S-CuS nanocomposites with tunable nonlinear optical properties, Mater. Res. Bull., 2015, **70**, 321-327.
345. Mazumdar P., S. Maity, D. Das, S. Samanta, M. Shyamal, and A. Misra. – Proton induced green emission from AIEE active 2,2` biquinoline hydrosol and its selective fluorescence turn-on sensing property towards Zn^{2+} ion in water, Sensors and Actuators B: Chemistry, 2017, **238**, 1266-1276.
346. Mei J., N.L.C. Leung, R.T.K. Kwok, J.W.Y. Lam, and B.Z. Tang. – Aggregation-induced emission: together we shine, united we soar! Chem. Rev., 2015, **115**(21), 11718-11940.
347. Moon D.S., and J.K. Lee. – Tunable synthesis of hierarchial mesoporous silica nanoparticles with radial wrinkle structure, Langmuir, 2012, **28**(33), 12341-12347.
348. Moro L., M. Turemis, B. Marini, R. Ippodrino, and M.T. Giardi. – Better together: Strategies based on magnetic particles and quantum dots for improved biosensing, Biotechnol. Adv., 2017, **35**(1), 51-63.
349. Oh E., R. Liu, A. Nel, K.B. Gemill, M. Bilal, Y. Cohen, and I.L. Medintz. – Meta-analysis of cellular toxicity for cadmium-containing quantum dots, Nature Nanotechnol., 2016, **11**, 479-486.
350. Oszwatdowski S., K. Zawistowska-Gibuta, and K.P. Rober. – Characterization of CdSe nanocrystals coated with amphiphiles. A capillary electrophoretic study, Microchimica Acta, 2012, **176**(3-4), 345-358.
351. Passos M.L.C., M. Pereira, M.L.M.F.S. Saraiva, M. Rangel, T. Moniz, J.L.M. Santos, and C. Friqerio. – Silica nanostructures synthesis and CdTe quantum dots immobilization for photocatalytical applications, RSC Adv., 2014, **4**, 59697-59705.
352. Pavlov V. – Enzymatic growth of metal and semiconductor nanoparticles in bioanalyses, Particle & Particle Systems Characterization, 2014, **31**(1), 36-45.
353. Park J.P., and S-W. Kim. – Surface stabilized InP/GaP/ZnS quantum dots with Mg ions for WLED application, J. Nanosci. Nanotechnol., 2016, **16**(5), 5312-5315.
354. Qi X., J. Peng, D. Tang, N. Wang, and H. Zou. – PEGMa modified molybdenum oxide as a NIR photothermal agent for composite thermal/pH-responsive p(NIPAM-co-MAA) microgels, J. Mater. Chem. C, 2017, **5**(34), 8788-8795.

355. Qu X., G. Pan, H.K. Yang, Y. Chen, J.W. Chung, B.K. Moon, B.C. Choi, J.H. Jeong, and K. Janq. – Low-temterature synthesis of luminescent and mesoporous beta-$NaYF_4$ microspheres via polyol-mediated solvothermal route, RSC Advances, 2013, **3**(14), 4763-4770.
356. Ranjbar-Navazi Z., M. Eskandani, M. Johari-Ahar, A. Nemati, H. Akbari, and S. Davaran. – Doxorubicin-conjugated D-glucosamine- and folate-bi-functionalized InP/ZnS QDs for cancer cells imaging and therapy, J. Drug Thargeting, 2017 [E-pub: August 30, 2017].
357. Rao H., Y. Dai, H. Ge, X. Liu, B. Chen, P. Zou, X. Wang, and Y. Wang. – Visual and fluorescence detection of pyrogallol based on a ratiometric fluorescence-enzyme system, New J. Chem., 2017, **41**(14), 6630-6637.
358. Ruhland T.M., P.M. Reinchstein, A.P. majewski, A. Walther, and A.H.E. Muller. – Superparamagnetic and fluorescent thermo-responsive core-shell-corona hybrid nanogels with a protective silica shell, J. Coloid Interface, 2012, **374**, 45-53.
359. Shen J., L. Zhao, and G. Han. – Lanthanide-doped upconverting luminescent nanoparticle platforms for optical-imaging guided drug delivery and therapy, Adv. Drug Deliv. Rev., 2013, **65**(5), 744-755.
360. Shirshahi V., and M. Soltani. – Solid silica nanoparticles: applications in molecular imaging, Contrast Media & Molecular Imaging, 2015, **10**(1), 1-17.
361. Song G., Q. Wang, Y. Wang, G, Lv, C. Li, R. Zou, Z. Chen, Z. Qin, K. Huo, R. Hu, and J. Hu. – A low-toxic multifunctional nanoplatform-based on Cu_9S_5@$mSiO_2$ core-shell nanocomposites: combining photothermal- and chemotherapies with infrared thermal imaging for cancer treatment, In: "Advanced Functional Materials", 2013, **23**(35), 4281-4292.
362. Sun H., Y. Xing, Q. Wu, and P. Yang. – Highly luminescent hybrid SiO_2-coated CdTe quantum dots retained initial photoluminescence efficiency in sol-gel SiO_2 film, J. Nanosci. Nanotechnol., 2015, **15**(2), 1562-1566.
363. Tang J.H., L. Xie, B. Zhang, T. Qiu, B. Qi, and H.P. Xie. – Preparation of strongly fluorescent silica nanoparticles of polyelectrolyte-protected cadmium telluride quantum dots and their application to cell toxicity and imaging, Anal. Chim. Acta, 2012, **720**, 112-117.
364. Tang Y., Y. Zhao, X. Wang, and T. Lin. – Layer-by-layer assembly of silica nanoparticles on 3D fibrous scaffolds: Enhancement of osteoblast cell adhesion, proliferation, and differentiation, J. Biomed. Mater. Res. Part A, 2014, **102**(11), 3803-3812.
365. Tang X., E. Kroger, A. Nielsen, C. Strelow, A. Mews, and T. Kipp. – Ultrathin and highly passivating silica shells for luminescent and water-soluble CdSe/CdS nanorods, Langmuir, 2017, **33**(21), 5253-5260.
366. Towari A., A.K. Mishra, H. Kobayashi, and A.P.F. Turner. – Chapter 9: Conjugates of Nanomaterials with Phthalocyanines, In: "Intelligent Nanomaterials" (Eds. E. Sntunes, C. Litwinski, and T. Nyokong), Wiley, February 21, 2012, DOI: 10.1002/9781118311974.ch9.
367. Viswanathan K., D. Hong, W-C. Chu, and Y.C. Lee. – Fabrication of 105Y, alpha 1-anti trypsin peptide conjugated hybrid nanoparticles for biological applications, J. Chinese Chem. Soc., 2013, **60**(4), 400-406.

368. Wang J.D., S.M. Han, D.D. Ke, and R.B. Wang. – Semiconductor quantum dots surface modification for potential cancer diagnostic and therapeutic applications, J. Nanomaterials, 2012, art. 129041.
369. Wang S., C. Li, P. Yang, M. Ando, and N. Murase. – Silica encapsulation of highly luminescent hydrophobic QDs by two-step microemulsion method, Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, **395**, 24-31.
370. Wang B-B., X-J. Ruan, M-H. Ma, and Z-X. Cai. – Application of quantum dots ad newly emerging nano-probes in food analysis and detection, Journal in Chinese, 2013, **34**(11), 311-315 (please, see Google Scholar).
371. Wang S.J., C.H. Zhou, H. Yuan, H.B. Shen, W.X. Zhao, L. Ma, and L.S. Li. – A robust ligand exchange approach for preparinghydrophilic, biocompatible photoluminescent quantum dots, Mater. Res. Bull., 2013, **48**(8), 2836-2842.
372. Wang R., Y. Xu, Y. Jiang, N. Chuan, X. Su, and J. Ji. – Sensitive quantification and visual detection of bacteria using $CdSe/ZnS@SiO_2$ nanoparticles as fluorescent probes, Anal. Methods, 2014, **6**, 6802-6808.
373. Wang X., Y. Shi, R.W. Graff, D. Lee, and H. Gao. – Developing recyclable pH-responsive magnetic nanoparticles for oil-water separation, Polymer, 2015, **72**, 361-367.
374. Wang X-S., W-S. Li, J-Q. Situ, X-Y. Ying, H. Chen, Y. Jin, and Y-Z. Du. – Multi-functional mesoporous beta-Ga_2O_3:Cr^{3+} nanorod with long lasting near infrared luminescence for in vivo imaging and drug delivery, RSC Adv., 2015, **5**, 12886-12889.
375. Wang H-J., Y. Cao, C-F. Wang, S-Z. Cui, L-W. Mi, and T. Miyazawa. – Green self-assembly of zein-conjugated ZnO/Cd(OH)Cl hierarchial nanocomposites with high cytotoxicity and immune organs targeting, Sci. Rep., 2016, **6**, 24387.
376. Wang H., C. Sun, X. Chen, Y. Zhang, V.L. Colvin, Q. Rice, J. Seo, S. Feng, S. Wang, and W.W. Yu. – Excitation wavelength independent visible color emission of carbon dots, Nanoscale, 2017, **9**(5), 1909-1915.
377. Wei D., Y. Xue, H. Huang, M. Liu, G. Zeng, Q. Wan, L. Liu, J. Yu, X. Zhang, and Y. Wei. – Fabrication, self-assembly and biomedical applications of luminescent sodium hyaluronate with aggregation-induced emission feature, Mater. Sci. Engineerig C, 2017, **81**, 120-126.
378. Welsher K., S.A. McManus, C-H. Hsia, S. Yin, and H. Yang. – Discovery of protein- and DNA-imperceptible nanoparticle hard coating using gel-based reaction tuning, J. Am. Chem. Soc., 2015, **137**(2), 580-583.
379. Weng L., H.L. Xie, C.G. Arges, J. Tang, G.Q. Zhong, H.L. Zhang, and E.Q. Chen. – Combined main-chain/side-chain ionic liquid crystalline polymer based on “jacketing” effect: Design, synthesis, supra-molecular self-assembly and photophysical properties, 2015EBSCO Industries, Inc., Express Polymer Letters, 2015, **9**(6), 536-553.
380. Xia Y., L. Dong, Y. Jin, S. Wang, L. Yan, S. Yin, S. Zhou, and B. Song. – Water-soluble nano-fluorogens fabricated by self-assembly of bolaamphiphiles bearing AIE moieties: towards application in cell imaging, J. Mater. Chem. B, 2015, **3**, 491-497.

381. Xue X., J. Xu, P.C-C. Wang, and X-J. Liang. – Subcellular behaviour evaluation of nanopharmaceuticals with aggregation-induced emission molecules, J. Mater. Chem., 2016, **4**, 2719-2730.
382. Yang P., Y. Yingzi, and L. Zhang. – Luminescent SiO_2 particles: Porous structure of matrix and stability of quantum dots, J. Nanosci. Nanotechnol., 2013, **13**(4), 3011-3015.
383. Ying J.Y., N.R. Jana, and N. Erathodiyil. – Functionalization of nanoparticles by glycosamine derivatives, US Patent Application Publication US2012/0128781 A1, May 24, 2012.
384. Zhang Y., M. Wang, Y-G. Zheng, H. Tan, B.Y-W. Hsu, Z-C. Yang, S.Y. Wong, A.Y-C. Chang, M. Choolani, X. Li, and J. Wang. – PEOlated micelle/silica as dual-layer protection of quantum dots for stable and targeted bioimaging, Chem. Mater., 2013, **25**(15), 2976-2985.
385. Zhang L., J. Lu, Y. Jin, and L. Qiu. – Folate-conjugated beta-cyclodextrin-based polymeric micelles with enhanced doxorubicin antitumor efficiency, Colloids and Surfaces B: Biointerfaces, 2014, **122**, 260-269.
386. Zhang Q., X. Kong, X. Wang, and C. Cheng. – $NaYF_4$: Yb^{3+}, Er^{3+} upconverting nanoparticles surface ligand exchange in ternary mixture solvent and optical properties, Chem. J. Chinese Universities, 2014, **35**(2), 224-229 [in Chinese].
387. Zhang S., L. Wen, J. Yang, J. Zeng, Q. Sun, Z. Li, D. Zhao, and S. Dou. – Facile fabrication of dendritic mesoporous SiO_2@CdTe@SiO_2 fluorescent nanoparticles for bioimaging, Particle & Particle Systems Characterization, 2016, **33**(5), 261-270.
388. Zhang Q., X. Kong, and C. Cheng. – Surface coating of hydrophobic up-converting nanoparticles in homogenous liquid phase system and application in optical detection, Chemical Journal of Chinese Universities, 2016, **37**, 429-434.
389. Zhou C.H., H. Wu, C.S. Huang, M.L. Wang, and N.Q. Jia. – Facile synthesis of single-phase mesoporous Gd_2O_3:Eu nanorods and their application for drug delivery and multimodal imaging, Particles & Particle Systems Characterization, 2014, **31**(6), 675-684.
390. Zhou J., Y. Yang, and C-Y. Zhang. – Towards biocompatible semiconductor quantum dots: from biosynthesis and bioconjugation to biomedical application, Chem. Rev., 2015, **115**(21), 11669-11717.
391. Zhou Z., F. Gu, L. Peng, Y. Hu, and Q. Wang. – Spectroscopic analysis and in vitro imaging applications of a pH responsive AIE sensor with a two-input inhibit function, Chem. Commun. (Camb.), 2015, **51**, 12060-12063.

Bakalova R., Z. Zhelev, I. Aoki, H. Ohba, Y. Imai, and I. Kanno. – Silica-shelled single quantum dot micelles as novel imaging probes with dual or multimodality, Anal. Chem., 2006, 78(16), 5925-5932.

392. Bera D., L. Qian, and P.H. Holloway. – Chapter 19: Semiconductor quantum dots for biosensiong, In: “Drug Delivery Nanoparticles Formulation and Characterization”, CRC Press,

2016, pp. 349.
393. Bitar A., N.M. Ahmad, H. Fessi, and A. Elaissari. – Silica-based nanoparticles for biomedical applications, Drug Discov. Today, 2012, **17**(19-20), 1147-1154.
394. Brandt Y.I., T. Mitchell, G.A. Smolyakov, M. Osinski, and R.S. Hartley. – Quantum dot assisted tracking of the intracellular protein cyclin E in Xenopus laevis embryos, J. Nanobiotechnol., 2015, **13**, 31.
395. Chen S., C. Hoskins, L.J. Wang, M.P. MacDonald, and P. Andre. – A water-soluble temterature nanoprobe based on a multimodal magnetic-luminescent nanocolloid, Chem. Commun., 2012, **48**(19), 2501-2503.
396. Das J., and T. Padma. – Quantum dots and their clinical applications, Nanosci. Nanotechnol. Asia, 2013, **3**(1), 95-101.
397. Delehanty J.B., K. Susumi, R.L. Manthe, W.R. Algar, and I.L. medintz. – Active cellular sensing with quantum dots: Transitioning from research tool to reality: a review, Anal. Chim. Acta, 2012, **750**(SI), 63-81.
398. Gao M., Y. Hong, B. Chen, Y. Wang, W. Zhou, W. Wong, J. Zhou, T.A. Smith, and Z. Zhao. – AIE conjugated polyelectrolyte based on tetraphenylethene for efficient fluorescence imaging and lifetime imaging of living cells, Polymer Chem., 2017, **8**(26), 3862-3866.
399. Han J., J. Sun, Y. Li, Y. Duan, and T. Han. – One-pot synthesis of a mechanochromic AIE luminogen: implication for rewritable optical data storage, J. Mater. Chem. C, 2016, **4**(39), 9287-9293.
400. Jaffar, Ahmed. – Mesoporous silica nanomaterial-supported Fe(III) catalysts for epoxide ring-opening reaction, PhD Thesis, The State University of New Jersey, 2015 (please, see Google Scholar).
401. Jing L.H., K. Ding, S.V. Kershaw, I.M. Kempson, A.L. Rogach, and M.Y. Gao. – Magnetically engineered semiconductor quantum dots as multimodal imaging probes, Adv. Mater., 2014, **26**(37), 6367-6386.
402. Mazumdar R., S. Maity, D. Das, S. Samanta, M. Shyamal, and A. Misra. – Proton induced green emission from AIEE active 2,2` biquinoline hydrosol and its selective fluorescence turn-on sensing property towards Zn^{2+} ion in water, Sensors and Actuators B: Chemistry, 2017, **238**, 1266-1276.
403. Mei J., N.L.C. Leung, R.T.K. Kwok, J.W.Y. Lam, and B. Z. Tang. – Aggregation-induced emission: Together we shine, united we soar! Chem. Rev., 2015, **115**(21), 11718-11940.
404. Oszwaldowski S., Zawistowska-Gibuta K., and K.P. Roberts. – Characterization of CdSe nanocrystals coated with amphiphils. A capillary electrophoresis study, Microchimica Acta, 2012, **176**(3-4), 345-358.
405. Riebe S., C. Vallet, F. Van der Vight, D. Gonzalez-Abradelo, C. Wolper, C.A. Strassert, G. Hansen, S. Knauer, and J. Voskuhl. – Aromatic thioethers as novel luminophores with aggregation-induced fluorescence and phosphorescence, Chemistry (A European Journal), 2017 [E-pub: August 9, 2017].

406. Shirshahi V., and M. Soltani. – Solid silica nanoparticles: applications in molecular imaging, Contrast Media & Molecular Imaging, 2015, **10**(1), 1-17.

407. Vibin M., R. Vinayakan, A. John, F.B. Fernandez, and A. Abraham. – Effective cellular internalization of silica-coated CdSe quantum dots for high contrast cancer imaging and labelling applications. Cancer Nanotechnol., 2014, **5**(1).

408. Vibin M., R. Vinayakan, F.B. Fernandez, A. John, and A. Abraham. – A novel fluorescent QD probe for the rapid diagnostic high contrast imaging of tumor in mice, J. Fluorescence, 2017, **27**(2), 669-677.

409. Vyslouzil, Libor. – Biologicke ucinky funkcionalizace nanocastic na bazi seleza, PhD Thesis, Masarykova Univerzita, 2015 (please, see Google Scholar).

410. Wang, Hening. – Development of multi-modality polymer-coated QDs for cancer imaging, PhD Thesis, Georgia Institute of Technology, US, June 14, 2016 (please, see Google Scholar).

411. Wang H., C. Sun, X. Chen, Y. Zhang, V.L. Colvin, Q. Rice, J. Seo, S. Feng, S. Wang, and W.W. Yu. – Excitation wavelength independent visible color emission of carbon dots, Nanoscale, 2017, **9**(5), 1909-1915.

412. Zhou J., Y. Yang, and C-Y. Zhang. – Towards biocompatible semiconductor quantum dots: from biosynthesis and bioconjugation to biomedical application, Chem. Rev., 2015, **115**(21), 11669-11717.

Zlateva G., Z. Zhelev, R. Bakalova, and I. Kanno. – Precise size-control and synchronized synthesis of six size-homogeneous CdSe quantum dot fractions in a slow-increasing temperature gradient, Inorganic Chemistry, 2007, 46(16), 6212-6214.

413. Chen H., Z. Zhen, T. Todd, P.K. Chu, and J. Xie. – Nanoparticles for improving cancer diagnosis, Mater. Sci. Eng.: R: Reports, 2013, **74**(3), 35-69.

414. Chung W., H. Jung, C.H. Lee, and S.H. Kim. – SrO.95ZnO.05Se:Eu2+ and CsSe/ZnS nanocrystals hybrid phosphors for enhancing color rendering index of white loght emirring diode, J. Nanosci. Nanotechnol., 2012, **12**(7), 6069-6073.

415. Chung W., H. Jung, C.H. Lee, and S.H. Kim. – Warm with high color rendering index white light from hybridization of $Ca_2BO_3Cl:Eu^{2+}$ yellow phosphor and CdSe/ZnS nanocrystals. J. Industrial Eng. Chem., 2013, **19**(5), 1743-1746.

416. Flamee S., M. Cirillo, S. Abe, K. de Nolf, R. Gomes, T. Aubert, and Z. Hens. – Fast, high yiled, and high solid loading synthesis of metal selenide nanocrystals, Chem. Mater., 2013, **25**(12), 2476-2483.

417. Fornari, Ana Maria Dalcin. – Atividade fotocatalítica e fotoeletroquímica de nanotubos TiO_2 impregnados com nanopartículas de metais nobres ou pontos quânticos para aplicação na produção de hidrogênio, PhD Thesis, Universidade Federal do Rio Grande do Sul. Instituto de Química, 2015 (please, see Google Scholar).

418. Garg, Nitya. – Study on nanoparticles, thin films of CdSe drmiconductor prepared by

bottom up approach technique, PhD Thesis, 2015, Sardar Patel University, India.
419. Goncalves L.F.F.F., C.J.R. Silva, F.K. Kanodarwala, J.A. Stride, M.R. Pereira, and M.J.M. Gomes. – Synthesis of an optically clear, flexible and stable hybrid ureasilicate matrix doped with CdSe nanoparticles produced by reverse micelles, Mather. Chem. Phys., 2014, **147**(1-2), 86-94.
420. Gowda A., M. Kumar, and S. Kumar. – Discotic liquid crystals derived from polycyclic aromatic cores: from the smallest benzene to the utmost graphene cores, Liquid Crystals, 2017, 1-28 [E-pub: May 2, 2017].
421. Jung H., W. Chung, C.H. Lee, and S.H. Kim. – Farbrication of white light-emitting diodes based on UV light-emitting diodes with conjugated polymers-(CdSe/ZnS) quantum dots as hybrid phosphors, J. Nanosci. Nanotechnol., 2012, **12**(7), 5407-5411.
422. Kumar S. – Nanoparticles in the supramolecular order of discotic liquid crysyals, Liquid Crystals, 2014, **41**(3).
423. Kumar S. – Supramolecular nanocomposites: Dispersion of zero-, one- and two-dimensional nanoparticles in discotic liquid crystals, J. Physics: Conference Series, 2016, **704**(1), 012022.
424. Manivannan A., A. Peterson, W. Wilson, B. Mukherjee, and V.R. Subramanian. – Chapter 5: Hydrogen production and photodegradation at TiO2/Metal/CdS sandwich using UV-Visible light, In: “Semiconductor Metrials for Solar Photovoltaic Cells”, M.P. Paranthaman et al. (Eds.), Springer Int. Publ., Switzerland, 2016, **218**, p. 141-167.
425. Palomba, Mariano. – Nanostrutture e nanocompositi metallo-polimero: sintesi e proprietà funzionali, PhD Thesis, Universita degli Studi di Napoli Deferico II, 2013 (please, see Google Scholar).
426. Peterson A., W. Wilson, B. Mukherjee, and V.R. Subramanian. – Simultaneous photodegradation and hydrogen production with TiO2/Pt/CdS using UV-visible light in the presence if a sacrificial agent and a pollutant, In: “Materials and Processes for Soral Fuel Production”, Sprinfer, New York, 2014, pp. 152 (please, see Google Scholar).
427. Schorn, Wolf. – Amidrazone, Hydrazidine und Formazane: Hydrazin-basierte Liganden zur Darstellung flüchtiger Metallverbindungen, PhD Thesis, Philipps-Universitat Marburg, 2013 (please, see Google Scholar).
428. Shukla R.K., Y.G. Galyametdinov, R.R. Shamilov, and W. Haase. – Effect of CdSe quantum dots doping on the switching time, localised electric field and dielectric parameters of ferroelectric liquid crystal, Liquid Crystals, 2014, **41**(2).
429. Singh D.P., S.K. Gupta, R. Manohar, M.C. Varia, S. Kumar, and A. Kumar. – Effect of cadmium selenide quantum dots on the dielectric and physical parameters of ferroelectric liquid crystal, J. Appl. Phys., 2014, **116**, Art. No. 034106.
430. Sun J., X. Zheng, H. He, X. Chen, B. Dong, and R. Fei. – Theoretical study of ligand and solvent effects on optical properties and stabilities of CdSe nanoclusters, J. Mol. Structure, 2016, **1114**, 123-131.

431. Xing X., B. Zhang, X. Wang, F. Liu, D. Shi, and Y. Cheng. – An „imaging-biopsy“ strategy for colorectal tumor reconfirmation by multipurpose paramagnetic quantum dots, Biomaterials, 2015, **48**, 16-25.

432. Zhang W., C. Jin, Y. Yang, and X. Zhong. – Noninjection facile synthesis of gram-scale highly luminescent CdSe multipod nanocrystals, Inorg. Chem., 2012, **51**(1), 531-535.

433. Zhang L., H. Nakamura, C-G. Lee, and H. Maeda. – An investigation of heating rate effects on particle size and concentration: instruction for scale-up, RSC Advances, 2012, **2**(9), 3708-3713.

434. Zhao H., and D. Ma. – Chapter 2: Synthesis and characterization of quantum dots, In: "Biosensors Based on Nanomaterials and Nanodevices" (Li J., and N. Wu, Eds.), CRC Press, 2014, pp. 11-39 (please, see Google Scholar).

Bakalova R., Z. Zhelev, T. Kubo, M. Mileva, and H. Ohba. – Dual-labelled telome-sensing probes for quantification of telomerase activity assay, J. Biochem. Biophys. Meth., 2007, 70(3), 503-506.

435. Kim K.W., Y. Shin, A.P. Perera, Q. Liu, J.S. Kee, K. Han, Y-J. Yoon, and M.K. Park. – Label-free, PCR-free chip-based detection of telomerase activity in bladder cancer cells, Biosensors and Bioelectronics, 2013, **45**, 152-157.

Kubo T., Z. Zhelev, H. Ohba, and R. Bakalova. – Modified 27-nt dsRNAs with dramatically enhanced stability in serum and long-term RNAi activity, Oligonucleotides, 2007, 17, 445-464.

436. Begin-Lavalee V., E. Midavaine, M-A. Dansereau, P. Tetreault, J-M. Longpre, A.M. Jacobi, S.D. Rose, M.A. Behlke, N. Beaudet, and P. Sarret. – Functional inhibition of cehmokine receptor CCR2 by dicer-substrate-siRNA orevents pain development, Molecular Pain, 2016, **12**, 1-16.

437. Dovydenko I., A. Venyaminova, D. Pyshnyl, I. Tarassov, and N. Entelis. – Chapter: Modifications in therapeutic oligonucleotides improving the delivery, In: "Modified Nucleic Acids in Biology and Medicine", Springer, 2016, pp. 139-337 (please, see Google Scholar).

438. Gvozdeva O.V., and E.L. Chernolovskaya. – Chapter 5: Noncanonical synthetic RNAi inducers, In: "INTECH", 2016, pp. 89-117 (please, see Google Scholar).

439. Katas H., M.A.G. Raja, and L.C. Ee. – Comparative characterization and cytotoxicity study of TAT-peptide as potential vectors for siRNA and Dicer-substrate siRNA, Drug Development and Industrual Pharmacy, 2014, **40**(11).

440. Kummitha C.M., A.S. Malamas, and Z.R. Lu. – Multifunctional RNAi Delivery Systems, In: "Advanced Delivery and Therapeutic…", Wiley, 2013 (please, see Google Scholar).

441. Petrova N.S., M.A. Zenkova, and E.L. Chernolovskaya. – Chapter 8: Structure-Functions Relations in Small Interfering RNA, In: "Practical Applications in Biomedical Engineering", InTech, 2013, pp. 188-228 (please, see Google Scholar).

442. Qi R-G., A-H. Wu, Y. Wang, J. Chen, Z-G. Xie, Y-B. Huang, and X-B. Jing. – Contribution of cholesterol moieties attached on MPEG-*b*-PCL-*b*-PLL to the cell uptake, endosomal escape and gene knockdown of the micelleplexes of siRNA, Chinese Journal of Polymer Science, 2013, **31**(6), 912-923.
443. Retting G.R., and M.A. Behlke. – Progress toward in vivo use of siRNAs-II, Mol. Ther., 2012, **20**(3), 483-512.
444. Rose S.D., and M.A. Behlke. – Chapter 2: Synthetic Dicer-substrate siRNAs as triggers of RNA interference, In: "RNA Interference: From Biology to Therapeutics" (Ed., Howard K.A.), Advances in Delivery Science and Technology, 2013, pp. 31-56.
445. Snead N.M., and J.J. Rossi. – RNA interference trigger variants: Getting the most out of RNA for RNA interference-based theraputics, Nucleic Acid Therapeutics, 2012, **22**(3), 139-146.
446. Snead N.M., X. Wu, A. Li, Q. Cui, K. Sakurai, J.C. Burnett, and J.J. Rossi. – Molecular basis for improved gene silencing by Dicer substrate interfering RNA compared with other siRNA variants, Nucl. Acids Res., 2013, doi: 10.1093/nar/gkt200 [Epub ahead of print].
447. Urbanska A.M., E.D. Karagiannis, A.S. Au, S.Y. Dai, M. Mozafari, and S. Prakash. – What`s next for gastrointestinal disorders: No needles? J. Control Rel., 2016, **221**, 48-61.

Kubo T., <u>Z. Zhelev</u>, H. Ohba, and R. Bakalova. – Chemically modified symmetric and asymmetric duplex RNAs: an enhanced stability to nuclease degradation and gene silencing effect, Biochem. Biophys. Res. Commun., 2008, 365, 54-61.

448. Константинович, Евгений. – Мультифункционал'ние гибриди НК-конструкций с углеродними нанотрубками, Дисертация, Российская Академия Наук, Сибирское отделение, Новосибирск, 2014 (please, see Google Scholar).
449. Authors in Chinese. – Title in Chinase, J. Trop. Med., 2015, **15**(2), 267 (please, see Google Scholar).
450. Bobbin M.L., J.C. Burnett, and J.J. Rossi. – RNA interference approaches for treatment of HIV-1 infection, Genome Medicine, 2015, **7**, art. no. 50.
451. Castillo G.M., and E. Bolotin. – Composition for long-acting peptide analogs, US Patent No. US9657078 B2, Publ. May 23, 2017 (please, see Google Scholar).
452. Colombo S., X. Zeng, H. Ragelle, and C. Foged. – Complexity in the therapeutic delivery of RNAi medicines: an analytical challenge, Exp. Opin. Drug Deliv., 2014, **11**(9).
453. Ito H., M. Usushihara, X. Liang, and H. Asanuma. – Improvement of RNAi activity and strand selectivity of RISC formation by modified siRNA involving interactions near 5' termini, ChemBioChem, 2012, **13**(2), 311-315.
454. Koide H., A. Okamoto, H. Tsuchida, H. Ando, S. Ariizumi, C. Kiyokawa, M. Hashimoto, T. Asai, T. Dewa, and N. Oku. – One-step encapsulation of siRNA between lipid-layers of multi-layer polycation liposomes by lipoplex freeze-thawing, J. Controlled Release, 2016, **228**, 1-8.
455. Rettig G.R., and M.A. Behlke. – Progress towards in vivo use of siRNAs-II, Mol. Ther.,

2012, **20**, 483-512.
456. Rose S.D., and M.A. Behlke. – Synthetic Dicer-Substrate siRNAs as Triggers of RNA Interference, In: "RNA Interference from Biology to Therapoutics", Advances in Delivery Science and Technology, Springer, 2013, pp. 31-56.
457. Snead N.M., and Rossi J.J. – RNA interference trigger variants: Getting the most out of RNA for RNA interference-based theraputics, Nucleic Acid Therapeutics, 2012, **22**(3), 139-146.
458. Snead N.M., X. Wu, A. Li, Q. Cui, K. Sakurai, J.C. Burnett, and J.J. Rossi. – Molecular basis for improved gene silencing by Dicer substrate interfering RNA compared with other siRNA variants, Nucl. Acids Res., 2013, **41**(12), 6209-6221.
459. Zhang Z-X., W-P. Min, and A.M. Jevnikar. – Use of RNA interference to minimize ischemia reperfusion injury, Transplantation Res., 2012, **26**(2), 140-155.

Bakalova R., Z. Zhelev, I. Aoki, K. Masamoto, M. Mileva, T. Obata, M. Higuchi, V. Gadjeva, and I. Kanno. – Multimodal silica-shelled quantum dots: Direct intracellular delivery, photosensitization, toxic and microcirculation effects, Bioconjugate Chemistry, 2008, 19(6), 1135-1142.

460. Akin M., R. Bongartz, J.G. Walter, D.O. Demirkol, F. Stahl, S. Timur, and T. Scheper. – PAMAM-functionalized water soluble quantum dots for cancer cell targeting, J. Mater. Chem., 2012, **22**(23), 11529-11536.
461. Cheng C-Y., K-L. Ou, W-T. Huang, J-K. Chen, J-Y. Chang, and C-H. Yang. – Gadolinium-based $CuInS_2$/ZnS nanoprobe for dual-modality magnetic resonance/optical imaging, Appl. Mater. Interfaces, 2013, **5**(10), 4389-4400.
462. Delehanty J.B., K. Susumi, R.L. Manthe, W.R. Algar, and I.L. Medintz. – Active cellular sensing with quantum dots: Transitioning from research tool to reality: a review, Anal. Chim. Acta, 2012, **750**(SI), 63-81.
463. Fang M., C-W. Peng, D-W. Pang, and Y. Li. – Quantum dots for cancer research: Current status, remaining issues, and future perspectives, Cancer Biol. Med., 2012, **9**(3).
464. Jang H., C. Lee, G-E. Nam, B. Quan, H.L. Choi, J.S. Yoo, and Y. Piao. – In vivo magnetic resonance and fluorescence dual imaging of tumor sites by using dye-doped silica-coated iron oxide nanoparticles, J. Nanoparticle Res., 2016, **18**(41).
465. Jing L.H., K. Ding, S.V. Kershaw, I.M. Kempson, A.L. Rogach, and M.Y. Gao. – Magnetically engineered semiconductor quantum dots as multimodal imaging probes, Adv. Mater., 2014, **26**(37), 6367-6386.
466. Liao H., Z. Wang, S. Chen, H. Wu, X. Ma, and M. Tan. – One-pot synthesis of gadolinium(III) doped carbon dots for fluorescence/magnetic resonance bimodal imaging, RSC Adv., 2015, **5**, 66575-66581.
467. Lin B., X. Yao, Y. Zhu, J. Shen, X. Yang, and C. Li. – Multifunctional gadolinium-labeled silica-coated core/shell quantum dots for magnetic resonance and fluorescence imaging of cancer cells, RSC Adv., 2014, **4**(40), 20641-20648.

468. Lu M., W. Zhang, Y. Gai, T. Yang, P. Ye, G. Yang, X. Ma, and G. Xiang. – Folate-PEG functionalized silica CdTe quantum dots as fluorescent probes for cancer cell imaging, New J. Chem., 2014, **38**, 4519-4526.

469. Ma M., and X. Zheng. – Preparation of brightly fluorescent silica nanoparticles modified with lycigenin and chitosan, and their application to an aptamer-based sandwich assay for thrombin, Microchim. Acta, 2015, **182**(13), 2193-2199.

470. Oh E., R. Liu, A. Nel, B. Gemill, M. Bilal, Y. Cohen, and I.L. Medintz. – Meta-analysis of cellular toxicity for cadmium-containing quantum dots, Nature Nanotechnol., 2016, **11**, 479-486.

471. Olivero F., F. Reno, F. Carniato, M. Rizzi, M. Cannas, and L. Marchese. – A novel luminescent bifunctional POSS as a molecular platform for biomedical applications, Dalton Transactions, 2012, **41**(25), 7467-7473.

472. Pericleous P., M. Gazouli, A. Lyberopoulou, S. Rizis, N. Nikiteas, and E.P. Efstathopoulos. – Quantum dots hold promise for early cancer imaging and detection, Int. J. Cancer, 2012, **131**(3), 519-528.

473. Petryayeva E., R. Bidshahri, K. Liu, C.A. Haynes, I.L. Medintz, and W.R. Algar. – Quantum dots as a platform nanomaterial for biomedical applications. In: "Handbook of Naobiomedical Research", Vol. 3, 2014, World Scientific.

474. Sapsford K.E., W.R. Algar, L. Berti, K.B. Gemmill, B.J. Casey, E. Oh, M.H. Stewart, and I.L. Medintz. – Functionalizing nanoparticles with biological molecules: Developing chemistries that facilitate nanotechnology, Chem. Rev., 2013, **113**(3), 1904-2074.

475. Shen J., Y. Li, Y. Zhu, X. Yang, X. Yao, J. Li, G. Huang, and C. Li. – Multifunctional gadolinium-labeled ailica-coated Fe_3O_4 and $CuInS_2$ nanoparticles as a platform for in vivo tri-modality magnetic resonance and fluorescence imaging, J. Mater. Chem. B, 2015, **3**, 2873-2882.

476. Singh G., M. Kumar, U. Soni, V. Arora, V. Bansal, D. Gupta, M. Bhat, A.K. Dinda, S. Sapra, and H. Singh. – Cancer cell targeting using folic acid/antiHER2 antibody conjugated fluorescent CdSe/CdS/ZnS-mercaptopropionic acid and CdTe-mercaptosuccinic acid quantum dots, J. Nanosci. Nanotechnol., 2016, **16**(1), 130-143.

477. Tyrakowski C.M., and P.T. Snee. – A primer on the synthesis, water-solubilization, and functionalization of quantum dots, their use as biological sensing agents, and present status, Phys. Chem. Chem. Phys., 2014, **16**, 837-855.

478. Valizadez A., H. Mikaelli, M. Samiei, S.M. farkhani, N. zarghami, M. Kouhi, A. Akbarzadeh, and S. Davaran. – Quantum dots: synthesis, bioapplications, and toxicity, Nanoscale Res. Lett., 2012, **7**(480).

479. Wegner K.D., and N. Hildebrandt. – Quantum dots: bright and versatile in vitro and in vivo fluorescence imaging biosensors, Chem. Soc. Rev., 2015, **44**, 4792-4834.

480. Wu Q., L. Chen, L. Huang, J. Wang, J. Liu, C. Hu, and H. Han. – Quantum dots decorated gold nanorod as fluorescent-plasmonic dual-modal contrasts agent for cancer imaging,

Biosensors and Bioelectronics, 2015, **74**, 16-23.

<u>Zhelev Z.</u>, K. Matsumoto, V. Gadjeva, R. Bakalova, I. Aoki, A. Zhelev, and K. Anzai. – EPR signal reduction kinetic of several nitroxide derivatives in blood in vitro and in vivo, Gen. Physiol. Biophys., 2009, 28(4), 356-362.

481. Bacic G., A. Pavicevic, and F. Peyrot. – In vivo evaluation of different alterations of redox status by studying pharmacokinetics of nitroxides using magnetic resonance techniques, Redox Biology, 2016, **8**, 226-242.
482. Jagtap A.P., I. Krstic, N.C. Kunjir, R. Hansel, R.F. Prisner, and S.T. Sigurdsson. – Sterically shielded spin labels for in-cell EPR spectroscopy: Analysis of stability in reducing environment, Free Radic. Res., 2015, **49**(1), 78-85.
483. Stamenkovic S., A. Pavicevic, M. Mojovic, A. Popovic-Bijelic, V. Selakovic, P. Andjus, and G. Bacic. – In vivo EPR pharmacokinetic evaluation of the redox status and the blood brain barrier permeability in the $SOD1^{G93A}$ ALS rat model, Free Radic. Biol. Med., 2017, **108**, 258-269.

<u>Zhelev Z.</u>, R. Bakalova, I. Aoki, K. Matsumoto, V. Gadjeva, K. Anzai, and I. Kanno. – Nitroxyl radicals as low toxic spin-labels for non-invasive magnetic resonance imaging of bblood-brain barrier permeability for conventional therapeutics, Chem. Commun. (Camb.), 2009, (1), 53-55.

484. Bhattacharya D., A. Panda, S. Shil, T. Goswami, and A. Misra. – A theoretical study on photomagnetic fluorescent protein chromophore coupled diradicals and their possible applications, Phys. Chem. Chem. Phys., 2012, **14**(19), 6905-6913.
485. Caglieris F., L. Melone, F. Canepa, G. Lamura, F. Castiglione, M. Ferro, L. Malpezzi, A. Mele, C. Punta, P. Franchi, M. Lucarini, B. Rossi, and F. Trotta. – Effective magnetic moment in cyclodextrin-polynitroxides: potential supramolecular vectors for MRI, RSC Adv., 2015, **5**(93), 76133-76140.
486. Chong K., T. Ku, P.E. Saw, S. Jon, J.H. Park, and C. Choi. – Enhancement of the photocytotoxic efficiency of sub-12 nm therapeutic polymeric micelles with increased co-localisation in mitochondria, Chem. Commun., 2013, **49**(98), 11476-11478.
487. Grigor`ev I.A., N.I. Tkacheva, and S.V. Morozov. – Conjugates of natural compounds with nitroxyl radicals as a basis for creation of pharmacological agents of new generation, Curr. Med. Chem., 2014, **21**(24), 2839-2852.
488. Jagtap A.P., I. Kristic, N.C. Kunjir, R. Hansel, T.F. Prisner, and S.Th. Sigurdsson. – Sterically shielded spin labels for in-cell EPR spectroscopy: Analysis of stability in reducing environment, Free Radic. Res., 2015, **49**(1), 78-85.
489. Kavala M., R. Boca, L. Dlhan, V. Brezova, M. Breza, J. Kozisek, M. Fronc, P. Herich, L. Svorc, and P. Szolcsanyi. – Preparation and spectroscopic, magnetic, and electrochemical

studies of mono-/biradical TEMPO derivatives, J. Org. Chem., 2013, **78**(13), 6558-6569.
490. Kavala M., V. Brezova, L. Svorc, Z. Vihonska, P. Olejnikova, J. Moncol, J. Kozisek, P. Herich, and P. Szolcsanyi. – Synthesis, physicochemical properties and antimicrobial activity of mono-/dinitroxyl amines, Org. Biomol. Chem., 2014, **12**(25), 4491-4502.
491. Miyake Y., X.L. Wang, M. Amasaka, K. Itto, H. Arimoto, H. Fujii, and H. Hirata. – Simultaneous imaging of an enantiomer pair by EPR using isotopic nitrogen labeling, Anal. Chem., 2013, **85**(2SI), 985-990.
492. Nguyen H. V-T., Q. Chen, J.T. Paletta, P. Harvey, Y. Jiang, H. Zhang, M.D. Boska, M.F. Ottaviani, A. Jasanoff, A. Rajca, and J.A. Jihnson. – Nitroxide-based macromolecular contrast agents with unprecedented transverse relaxivity and stability for MRI of tumors, ACS Cent. Sci., 2017, **3**(7), 800-811.
493. Salford L.G., H. Nittby, B.R.R. Prsson. – Effects of Electromagnetic Fields from Wireless Communication upon the Blood-Brain Barrier, Biolniyiative Report, 2012 (http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec10_2012_Effects_Electromagnetic_Fields_Wireless_Communication.pdf) (please, see Google Scholar).
494. Salford L.G., H. Nittby, A. Brun, J. Eberhardt, L. Malmgren, and B.R.P. Persson. – Effects of microwave radiation upon the mammalian blood-brain barrier, Eur. J. of…, 2010, 333-355 [http://ejoncology.it/site/wp-content/uploads/2014/10/21-salford.pdf] (please, see Google Scholar).
495. Soikkeli, Maiju-Lotta. - Nitroksyyliradikaalit ja niiden käyttö lääketieteellisessä kuvantamisessa, PhD Thesis, Helsinki University, 2013 (please, see Google Scholar).
496. Soikkeli M., K. Sievanen, J. Peltonen, T. Kaasalainen, M. Timonen, P. Heinonen, S. Ronkko, V.P. Lehto, J.S, Kavakka, and S. Heikkinen. – Synthesis and in vitro phantom NMR and MRI studies of fully organic free radicals, TEEPO-glucose and TEMPO-glucose, potential contrast agents for MRI, RSC Adv., 2015, **5**(20), 15507-15510.
497. Wang R-M., M-H. Zhang, W. Wang, Y-W. Xu, Z-Y. Wang, F-N. Dai, L-L. Zhang, and D-F. Sun. – Interpretation of three 2D In-MOFs with (6, 3) topology: Synthesis, structures and fluorescent properties, Chinese J. Struct. Chem., 2016, **35**(11), 1714-1722.
498. Wang Z., S. Fujisawa, M. Suzuki, and K. Hanabusa. – Low molecular weight gelators bearing electroactive groups as cathode materials for rechargeable batteries, Macromolecular Symposia, 2016, **364**(1), 38-46.

<u>Zhelev Z.</u>, R. Bakalova, I. Aoki, K. Matsumoto, V. Gadjeva, K. Anzai, and I. Kanno. – Nitroxyl radicals for labeling of conventional therapeutics and non-invasive magnetic resonance imaging of their permeability for blood-brain barrier: Relationship between structure, blood clearance and MRI signal dynamic in the brain, Molecular Pharmaceutics, 2009, 6(2), 504-512.

499. Agarwal S., D.K. Jangir, P. Singh, and R. Mehrotra. – Spectroscopic analysis of the interaction of lomustine with calf thymus DNA, J. Photochem. Photobil. B: Biology, 2014, **130**,

281-286.
500. Ai P., H. Wang, K. Liu, T. Wang, W. Gu, L. Ye, and C. Yan. – The relative length of dual-target conjugated on iron oxide nanoparticles plays a role in brain glioma targeting. RSC Adv., 2017, **7**, 19954-19959.
501. Bacic G., A. Pavicevic, and F. Peyrot. – In vivo evaluation of different alterations of redox status by studying pharmacokinetics of nitroxides usung magnetic resonance techniques, Redox Biology, 2016, **8**, 226-242.
502. Bardeland D., M. Hardy, O. Ouari, and P. Tordo. – Spin labels and spin probes, In: “Encyclopedia of Radicals in Chemistry, Biology and Medicine”, John Wiley & Sons, Ltd., 2012.
503. Bhattacharya D., A. Panda, S. Shil, T. Goswami, and A. Misrta. – A theoretical srtudy on photomagnetic fluorescent protein chromophore coupled diradicals and their possible applications, Phys. Chem. Chem. Phys., 2012, **14**(19), 6905-6913.
504. Bhattacharya D., S. Shil, T. Goswami, A. Misra, A. Panda, and D.J. Klein. – A theoretical study on magnetic properties of bis-TEMPO diracdicals with possible application, Computational and Theoretical Chemistry, 2013, **1024**, 15-23.
505. Caglieris F., L. Melone, F. Canepa, G. Lamura, F. Castiglione, M. Ferro, L. Malpezzi, A. Mele, C. Punta, P. Franchi, M. Lucarini, B. Rossi, and F. Trotta. – Effective magnetic moment in cyclodextrin-polynitroxides: potential supramolecular vectors for magnetic resonance imaging, RSC Adv., 2015, **5**, 76133-76140.
506. Chen C., N. Kang, T. Xu, D. Wang, L. Ren, and X. Guo. – Core-shell hybrid upconversion nanoparticles carrying stable nitroxide radicals as potential multifunctional nanoprobes for upconversion luminescence and magnetic resonance dual-modality imaging, Nanoscale, 2015, **7**(2), 5249-5261.
507. Cordova A., J. Woodrick, S. Grindrod, L. Zhang, Y. Saygideger-Kont, K. Wang, S. DeVito, S. Daniele, M. Paige, and M.L. Brown. – Aminopeptidase P mediated targeting for breast tissue specific conjugate delivery, Bioconjugate Chem., 2016 [E-pub: March 11].
508. Emoto M.C., K. Yamada, M. Yamato, and H.G. Fujii. – Novel ascorbic acid-reactive nitroxide in a lipid emulsion: An efficient brain imaging constrast agent for MRI of small rodents, Neurosci. Lett., 2013, **546**, 11-15.
509. Garmendia S., D. Mantione, S.A. Castro, C. Jehanno, L. Lezama, J.L. Hedrick, D. Mecerreyes, L. Salassa, and H. Sardon. – Polyuretane based organic macromolecular contrast agents (PU-ORCAs) for MRI, Polymer Chem., 2017, **8**(17), 2693-2701.
510. Gordova A., J. Woodrick, S. Grindrod, L. Zhang, Y. Saygideger-Kont, K. Wang, S. DeVito, S.G. Daniele, M. Paige, and M.L. Brown. – Aminopeptidase P mediated targeting for breast tissue specific conjugate delivery, Bioconjug. Chem., 2016, **27**(9), 1981-1990.
511. Hendricks J.A., S.V. Gulla, D.E. Budil, and R.N. Hanson. – Synthesis of a spin-labeled anti-estrogen as a dynamic motion probe for the estrogen receptor ligand binding domain, Bioorg. Med. Chem. Lett., 2012, **22**(4), 1743-1746.

512. Huang L., C. Yan, D. Cui, Y. Yan, X. Liu, X. Lu, X. Tan, X. Lu, J. Xu, Y. Xu, and R. Liu. – Organic radical contrast agents based on polyacetylenes containig TEMPO: Targeting MRI/Optical bimodal imaging of folate receptor expressing HeLa tumors in vitro and in vivo, Macromol, Biosci., 2015, **15**(6), 788-798.
513. Hughes B.K., W.A. Braunecker, A.J. Ferguson, T.W. Kemper, R.E. Larsen, and T. Gennett. – Quenching of the perylene fluorophore by stable nitroxide radical-containing macromolecules, J. Phys. Chem. B, 2014, **118**(43), 12541-12548.
514. Lu X., Z. Zhang, Q. Xia, M. Hou, C. Yan, Z. Chen, Y. Xu, and R. Liu. – Glucose functionalized carbon QD containing organic radical for optical/MR dual-modality bioimaging, Mater. Sci. Engineering C, 2018, **82**, 190-196.
515. Meenakumari V., A. Jawahar, and A.M.F. Benial. – Comparative study of the reduction process of different ring structured nitroxyl spin probes: An EPR study, Eur. J. Biophys., 2016, **4**(2), 8-15.
516. Mehrotra R., D.K. Jangir, A.B. Ray, P. Singh, and A.K. Srivastava. – Interaction studies of anticancer drug lomustine with calf thymus DNA using surface enhanced raman spectroscopy, Journal of Metrology Societry of India, 2013, **28**(4), 273-277.
517. Nguyen H.V.T., Q. Chen, J.T. Paletta, P. Harvey, Y. Jiang, H. Zhang, M.D. Boska, M.F. Ottaviani, A. Josanoff, A. Rajca, and J.A. Johnson. – Nitroxide-based macromolecular contrast agents with unprecedented transverse relaxivity and stability for MRI of tumors, ACS Cent. Sci., 2017, **3**(7), 800-811.
518. Rivera E.J., R. Sethi, F.F. Qu, R. Krishnamurthy, R. Muthupillai, M. Alfond, M.A. Swanson, S.S. Eaton, G.R. Eaton, and L.J. Wilson. – Nitroxide Radicals@US-Tubes: New spin labels for biomedical applications, Adv. Functional Mater., 2012, **22**(17), 3691-3698.
519. Ronaldson P.T., and T.P. Davis. – Blood-brain barrier integrity and glial support: Mechanisms that can be targeted for novel therapeutic approaches in stroke, Curr. Pharm. Design, 2012, **18**(25), 3624-3644.
520. Sowers, Molly Ann. – Advancements in branched bottlebruch polymers for responsive, targeted imaging, PhD Thesis, Massachusetts Institute of Technology. 2015 (please, see Google Scholar).
521. Sowers M.A., J.R. McCombs, Y. Wang, J.T. Paletta, S.W. Morton, E.C. Dreaden, M.D. Boska, M.F. Ottaviani, P.T. Hammond, A. Rajca, and J.A. Johnson. – Redox-responsive branched-bottlebrush polymers for in vivo MRI and fluorescence imaging, Nat. Commun., 2014, **5**, Art. No. 5460.
522. Stamenkovic S., A. Pavicevic, M. Mojovic, A. Popovic-Bijelic, V. Selakovic, P. Andjus, and G. Bacic. – In vivo EPR pharmacokinetic evaluation of the redox status and the blood brain barrier permeability in the $SOD1^{G93A}$ ALS rat model, Free Radic. Biol. Med., 2017, **108**, 258-269.
523. Tacheva B., R. Georgieva, and M. Karabaliev. – Interactions of the spin-labelled chloroethylnitrosourea SLCNUgly with electrode-supported lipid films, Electrochimica Acta,

2016, **192**, 439-447.

524. Temerk Y., M. Ibrahim, H. Ibrahim, and M. Kotb. – Interactions of an anticancer drug lomustine with single and double stranded DNA at physiological conditions analyzed by electrochemical and spectroscopic methods, J. Electroanal. Chem., 2016, **769**, 62-71.

525. Terekhov M., J. Krummenacker, V. Denysenkov, K. Gerz, T. Prisner, and L.M. Schreiber. – Characterization and optimization of the visualization performance of continuous flow overhauser DNP hyperpolarized water MRI: Inversion recovery approach, Magnetic Resonance in Medicine, 2016, **75**(3), 985-996.

526. Temerk Y., M. Ibrahim, H. Ibrahim, and M. Kotb. – Interactions of an anticancer drug lomustine with single and double stranded DNA at physiological conditions analyzed by electrochemical and spectroscopic methods, J. Electroanal. Chem., 2016, **769**, 62-71.

527. Thompson, Brandon. – Hypoxia/reoxigenation stress modulates atorvastatin transport at the blood-brain barrier: A role for organic anion transporting polypeptide, PhD Thesis, University of Arizona, 2014 (please, see Google Scholar).

528. Thompson B.J., and P.T. Ronaldson. – Chapter Six – Drug Delivery to the Ischemic Brain, Adv. Pharm., 2014, **71**, 165-202.

529. Yasui H., C.M. Yamazaki, H. Nose, C. Awada, T. Takao, and T. Koide. – Potential of collagen-like triple helical peptides as drug carriers: Their in vivo distribution, metanolism and excretion profiles in rodents, Peptide Sci., 2013, **100**(6), 705-713.

Zhelev Z., R. Bakalova, I. Aoki, V. Gadjeva, and I. Kanno. – Imaging of cancer by redox-mediated mechanism: a radical diagnostic approach, Molecular BioSystems, 2010, 6, 2386-2388.

530. Bardeland D., M. Hardy, O. Ouari. – Spin Labeles and Spin Probes, In: “Encyclopedia of Radicals in Chemistry, Biology and Materials (Eds. Chatgilialoglu C., and A. Studer), Wiley-VCH, 2012.

Bakalova R., Z. Zhelev, D. Kokuryo, L. Spasov, I. Aoki, and T. Saga. – Chemical nature and structure of organic coating of quantum dots is crucial for their application in imaging diagnostics, Int. J. Nanomed., 2011, 6, 1719-1732.

531. Мошников В.А., О.А. Александрова, А.О. Дробинцева, И.М. Кветной, Ю.С. Крилова, Д.С. Мазинг, Л.Б. Матюшкин, С.Ф. Мусихин, В.О. Полякова, О.А. Ружов. – От лазерной оптической микроскопии до флуоресцентной микроскопии висоkого разрешения. Коллоидние квантовие точки – биомаркери в поискових научних исследованиях, Биотехносфера, 2014, **6**(36), 16-30.

532. Abu N., N. Ismail, Z.A. Zubir, N.M. Azmi, and N.A. Aziz. – Preparation, characterization and photostability study of biocomposites comprising QDs for bioimaging application, In: Materials Science Forum “Research and Application of Functional Materials”,

July, 2017, Vol. 900, pp. 3-6.
533. Alencar L.D.S., V. Pilla, A.A. Andrade, D.A. Donatti, D.R. Vollet, and F.S. De Vicente. – High fluorescence quantum efficiency of CdSe/ZnS quantum dots embedded in GPTS/TEOS-derived organic/silica hybrid colloids, Chem. Phys. Lett., 2014, **599**, 63-67.
534. Authgor in Chinese. – New fluorescent quantum dot surface modification and application progress, China Science and Technology Information, 2013, **11**(104), 168 (please, see Google Scholar).
535. Das M., R.P. Singh, S.R. Datir, and S. Jain. – Surface chemistry dependent "switch" regulates the trafficking and therapeutic performance of drug-loaded carbon nanotubes, Bioconjugate Chem., 2013, **24**(4), 626-639.
536. Fazaeli Y., H. Zare, S. Karimi, R. Rahighi, and S. Feizi. – Novel aspects of application of CdTe QDs nanostructures in radiation oncology, Appl. Chem. A, 2017, **123**, 507.
537. Feugang J.M., R.C. Youngblood, J.M. Greene, S.T. Willard, and P.L. Ryan. – Self-illuminating quantum dots for non-invasive bioluminescence imaging of mammalian gametes, J. Nanobiotechnol., 2015, **13**, art. No. 38.
538. Gardikis K., M. Micha-Screttas, C. Demetzos, and B.R. Steele. – Dendrimers and the development of new complex nanomaterials for biomedical applications, Curr. Med. Chem., 2012, **19**(29), 4913-4928.
539. Han N., Y. Yan, S. Wang, Z. Shu, S. Zheng, and W. Fun. – Polymer-based cancer nanotheranostics: Retrospectives of multi-functionalities and pharmacokinetics, Curr. Drug Metab., 2013, **14**(6), 661-674,
540. Janowski M., J.W.M. Bulte, and P. Walczak. – Personalized nanomedicine advancements for stem cell tracking, Adv. Drug Deliv. Rev., 2012, **64**(13), 1488-1507.
541. Jain K.K. – Chapter 17: Role of Biotechnology in Neurosurgery, In: "Applications of Biotechnology in Neurology", DOI: 10.1007/978-1-62703-8_17, Springer, 2013.
542. Khemthongcharoen N., R. Jolivot, S. Rattanavarin, and W. Piyawattanametha. – Advances in imaging probes and optical microendoscopic imaging techniques for early in vivo cancer assessment, Adv. Drug Deliv. Rev., 2014, **74**, 53-74.
543. Le Guevel X. – Chapter 11: Overview and presentation of exploratory methods for manufacturing nanoparticles/"inorganic materials", In: "Pharmaceutical Nanotechnology: Innovation and Production" (Cornier J. et al., eds.), Vol. 2, Wiley VCH, 2016, p. 271 (please, see Google Scholar).
544. Madhankumar A.B., O.D. Mrowczynski, S.R. Patel, C.L. Weston, B.E. Zacharia, M.J. Glantz, C.A. Siedlecki, L-C. Xu, and J.R. Connor. – Interleukin-13 conjugated QDs for identification of glioma initiating cells and their extracellular vesicles, Acta Bionaterialia, 2017, **58**, 205-213.
545. Oh E., R. Liu, A. Nel, K.B. Gemill, M. Bilal, Y. Cohen, and I.L. Medintz. – Meta-analysis of cellular toxicity for cadmium-containing QDs, Nat. Nanotechnol., 2016, **11**, 479-486.

546. Perez R.A., R.K. Singh, T-H. Kim, and H-W. Kim. – Silica-based multifunctional nanodelivery systems towards regenerative medicine, Materials Horizons, 2017, **4**(5), 772-799.
547. Pilla V., L.P. Alves, J.F. de Santana, L.G. da Silva, R. Ruggiero, and E. Munin. – Fluorescence quantum efficiency of CdSe/ZnS quantum dots embedded in biofluids: pH dependence, J. Appl. Phys., 2012, **112**(10), art. No. 104704.
548. Pilla V., and E. Munin. – Fluorescence quantum efficiency of CdSe/ZnS quantum dots functionalized with amine or carboxyl groups, J. Nanoparticle Res., 2012, **14**(10), art. No. 1147.
549. Pilla V., L.P. Alves, J.F. de Santana, L.G. de Silva, R. Ruggiero, and E. Munin. – Fluorescence quantum efficiency of CdSe/ZnS quantum dots embedded in biofluids: pH dependence, J. Appl. Phys., 2012, **112**(10), art. No. 104704.
550. Pilla V., S.R. de Lima, A.A. Andrade, A.C.A. Silva, and N.O. Dantas. – Fluorescence quantum efficiency of CdSe/CdS magic-sized quantum dots functionalized with carboxyl or hydroxyl groups, Chem. Phys. Lett., 2013, **580**, 130-134.
551. Plumley J.B., B.A. Akins, G.J. Alas, M.E. Fetrow, J. Nguyen, P. Jain, S. Yang, Y.I. Brandt, G.A. Smolyakov, W. Ornatowski, E.D. Milligan, and M. Osinski. – Noncytotoxic Mn-doped ZnSe/ZnS quantum dots for biomedical applications, SPIE Proceedings, 2014, Vol. 8955.
552. Podgorski K., E. Terpetschnig, O.P. Klochko, O.M. Obukhova, and K. Haas. – Ultra-bright and stable red and near-infrared squaraine fluorophores for in vivo two-photon imaging, PloS One, 2012, **7**(12), e51980.
553. Probst C.E., P. Zrazhevskiy, V. Bagalkot, and X. Gao. – Quantum dots as platform for nanoparticle drug delivery vehicle design, Adv. Drug Deliv. Rev., 2013, **65**(5), 703-718.
554. Radenkovic D., H. Kobayashi, E. Remsey-Semmelweis, and A.M. Seifalian. – Quantum dot nanoparticle for optimization of breast cancer diagnostics and therapy in a clinical setting, Nanomedicine: Nanotechnol. Biol. Med., 2016, **12**(6), 1581-1592.
555. Ray, Judith Victoria. – Novel molecular imprinted nanogels as drug delivery vehicles for tamoxifen, PhD Thesis, 2014, Queen Mary University. London, UK (please, see Google Scholar).
556. Rumyantsev K.A., A.A. Shemetov, I.R. Nabiev, and A.V. Sukhanova. – Structural and functional aspects of the interaction of proteins and peptides with nanoparticles, Nanotechnologies in Russia, 2013, **8**(11-12), 700-720.
557. Samadikhah H.R., M. Nikkhah, and S. Hosseinkhani. – Enhancement of cell internalization and photostability of red and green emitter QDs upon entrapment in novel cationic nanoliposomes, Luminescence, 2017, **32**(4), 517-528.
558. Shemetov A.A., I. Nabiev, and A. Sukhanova. – Molecular interaction of proteins and peptides with nanoparticles, ACS Nano, 2012, **6**(6), 4585-4602.
559. Shukur A., S.B. Rizvi, D. D. Whitehead, A. Seifalian, and M. Azzawi. – Altered sensitivity to nitric oxide donors, induced by intravascular infusion of quantum dots, in murine mesenteric alreties, Nanomedicine: Nanotechnol. Biol. Med., 2013, **9**(4), 532-539.

560. Skotny A., and J. Pucinska. – Modern flow cytometry, Biomed. Eng. (Poland), 2013, **9**, 3-11.

561. Taguchi M., A. Ptitsyn, E.S. McLamore, and J.C. Claussen. – Nanomaterial-mediated biosensors for monitoring glucose, J. Diabetes Sci. Technol., 2014, **8**(2), 403-411.

562. Tasnim N., B.G. Nair, K.S. Krishna, S. Kalagara, M. Narayan, J.C. Noveron, and B. Joddar. – Frontiers in Nano-Therapeutics, Springer, 2017, pp. 263 (ISBN: 978-981-10-3282-0).

563. Tripathi S.K., G. Kaur, R.K. Khurana, S. Kapoor, and B. Singth. – Quantum dots and their potential role in cancer theranostics, Crit. Rev. Ther. Drug Carrier Systems, 2015, **32**(6) (please, see Google Scholar).

564. Wang Y., Y. Zhu, J. Huang, J. Cai, J. Zhu, X. Yang, J. Shen, H. Jiang, and C. Li. – $CsPbBr_3$ perovskite QDs-based monolithic electrospin fiber membrane as an ultrastable and ultrasensitive fluorescent sensor in aqueous medium, J. Phys. Chem. Lett., 2016, **7**(21), 4253-4258.

565. Wu T., and M. Tang. – Applications and perspectives of quantum dots in nanotoxicology, Asian Journal of Ecotoxicology, 2015, **10**(3) [in Chinese].

566. Ye C., Y.Q. Wang, C.G. Li, J. Yu, and Y.Z. Hu. – Preparation of liposomes loaded with quantum dots, fluorescence resonance energy transfer studies, and near-infrared in vivo imaging of mouse tissue, Microchimica Acta, 2013, **180**(1-2), 117-125.

567. Zhan Q-I., and M. Tang. – Advances in effect of surface modification on toxicity of quantum dots, Chin. J. Pharmacol. Toxicol., 2014, **28**(1), 126-133.

568. Zhang G., L. Chen, X. Guo, A.A. Khan, Y. Gu, and N. Gu. – Nanoparticle-mediated drug delivery systems (DDS) in the central nervous system, Curr. Org. Chem., 2017, 21(3), 272-283.

569. Zhuang S.H., X.X. Guo, Y.S. Wu, Z,H, Chen, Y. Chen, Z-Q. Ren, and T-C. Liu. – Quantum dot-based luminescent oxygen channeling assay for potential application in homogeneous bioassays, J. Fluorescence, 2016, **26**(1), 317-322.

Tomizawa A., I. Ishii, Z. Zhelev, I. Aoki, S. Shibata, M. Kitada, and R. Bakalova. – Carbamoyl-PROXYL-enhanced MRI detects very small disruptions in brain vascular permeability induced by dietary cholesterol, Biochim. Biophys. Acta (Gen. Subjects), 2011, 1810(12), 1309-1316.

570. Dhas M.K., H. Utsumi, A. Jawahar, and A.M.F. Benial. – Dynamic nuclear polarization properties of nitroxyl radical in high viscous liquid using Overhauser-enhnaced MRI (OMRI), J. Magn. Res., 2015, **253**, 32-38.

571. Kareinen I., L. Cedo, R. Silvennoinen, P-P. Laurila, M. Jauhiainen, J. Julve, F. Blanco-Vaca, J.C. Escola-Gil, P.T. Kovanen, and M. Lee-Rueckert. – Enhanced vascular permeability facilitates entry of plasma HDL and promotes macrophage-reverse cholesterol transport from skin in mice, J. Lipid Res., 2015, **56**, 241-253.

<u>Zhelev Z.</u>, **V. Gadjeva, I. Aoki, R. Bakalova, and T. Saga. – Cell penetrating nitroxides as molecular sensors for imaging of cancer in vivo, based on tissue redox activity, Mol. BioSyst., 2012, 8, 2733-2740.**

572. Bacic G., A. Pavicevic, and F. Peyrot. – In vivo evaluation of different alterations of redox status by studying pharmacokinetics of nitroxides using magnetic resonance techniques, Redox Biology, 2016, **8**, 226-242.

573. Caglieris F., L. Melone, F. Canepa, G. Lamura, F. Castiglione, M. Ferro, L. Malpezzi, A. Mele, C. Punta, P. Franchi, M. Lucarini, B. Rossi, and F. Trotta. – Effective magnetic moment in cyclodesxtrin-polynitroxides: potential supramolecular vectors for MRI, ESC Adv., 2015, **5**(93), 76133-76140.

574. Hingorani D.V., A.S. Bernstein, and M.D. Pagel. – A review of responsive MRI contrast agents: 2005-2014, Cotrast Media & Molecular Imaging, 2015, **10**(4), 245-265.

575. Lewandowski M., and K. Gwozdzinski. – Photoprotective and radioprotective properties of nitroxides and their application in MRI, Postery Hig. Med. Dosw., 2016, **70**, 1101-1111.

576. Maulucci G., G. Bacic, L. Bridal, H.H.H.W. Schmidt, B. Tavitian, T. Viel, H, Utsumi, A.S. Yalcin, and M. DeSpirito. – Imaging reactive oxygen species-induced modifications in living systems, Antioxid. Redox Signal., 2016, **24**(16), 939-958.

577. Sadowska-Bartosz I., S. Galiniak, J. Skolimowski, I. Stefaniuk, and G. Bartosz. – Nitroxides preventprotein glycoxidation in vitro, Free Radic. Res., 2015, **49**(2), 113-121.

578. Stamenkovic S., A. Pavicevic, M. Mojovic, A. Popovic-Bijelic, V. Selakovic, P. Andjus, and G. Bacic. – In vivo EPR pharmacokinetic evaluation of the redox status and the blood brain barrier permeability in the SOD1^{G93A} ALS rat model, Free Radic. Biol. Med., 2017, **108**, 258-269.

579. Stamenkovic, Stefan P. - Ispitivanje ranih markera procesa neuroinflamacije i oksidativnog stresa u mozgu transgenog hSOD1 G93A pacova kao eksperimentalnog modela amiotrofične lateralne skleroze, PhD Thesis, Racunarski Centar Univerziteta u Beogradu, July 14, 2017 (please, see Google Scholar).

580. Zhang B., L. Yu, R. Zhang, Y. Liu, and R. Liu. – Investigation on the interaction of nanoAg with Cu-Zn SOD, Luminescence, 2015, **30**(8), 1195-1200.

<u>Zhelev Z.</u>, **I. Aoki, V. Gadjeva, B, Nikolova, R. Bakalova, and T. Saga. – Tissue redox activity as a sensing platform for imaging of cancer based on nitroxide redox cycle, Eur. J. Cancer, 2013, 49(6), 1467-1478.**

581. Gale E.M., S. Mukherjee, C. Liu, G.S. Loving, and P. Caravan. – Structure-redox-relaxivity relationships for redox responsive manganese-based magnetic resonance imaging probes, Inorg. Chem., 2014, **53**(19), 10748-10761.

582. Lewandowski M., and K. Gwozdzinski. – Application of nitroxides as an anticancer drugs and antioxidants against drug-induced oxidative stress in cancer therapy, Postery Biologii

Komorki, 2015, **42**, 667-686.
583. Lewandowski M., and K. Gwozdzinski. – Photoprotective and radioprotective properties of nitroxides and their application in MRI, Postery Hig. Med. Dosw., 2016, **70**, 1101-1111.
584. Poprac P., P. Poliak, M. KOvala. Z. Barbierikova, M. Zalibera, M. Fronc, L. Svorc, Z. Vihonska, P. Olejnikova, K. Luspai, V. Lukes, V. Brezova, and P. Szolcsanyi. – Polyradical PROXYL/TEMPO-derived amides: Synthesis, physicochemical studies, DFT calculations, and antimicrobial activity, ChemPhysChem, 2017 [E-pub: October 20].
585. Prescott C., and S.E. Bottle. – Biological relevance of free radicals and nitroxides, Cell Biochem. Biophys., 2017, **75**(2), 227-240.
586. Takeshita K., S. Okazaki, and Y. Hirose. – Pharmacokinetics of lipophilically different 3-substituted 2,2,5,5-tetramethylpyrrolidine-N-oxyl radicals frequently used as redox probes in in vivo magnetic resonance studies, Free Radic. Biol. Med., 2016, **97**, 263-273.
587. Tomasetti M., L. Santarelli, R. Alleva, L-F. Dong, and J. Neuzil. – Redox-active and redox-silent compounds: Synetgistic therapeutics in cancer, Curr. Med. Chem., 2015, **22**(5), 552-568.
588. Towner R.A., P. Garteiser, F. Bozza, N. Smith, D. Saunders, J.C.P. d'Avila, F. Magno, M.F. Oliveira, M. Ehrenshaft, F. Lupu, R. Silasi-Mansat, D.C. Ramirez, S.E. Gomez-Mejiba, R.P. Mason, and H.C.C. Faria-Neto. – In vivo detection of free radicals in mouse septic encephalopathy using molecular MRI and immuno-spin trapping, Free Radic. Biol. Med., 2013, **65**, 828-837.

Bakalova R., Z. Zhelev, I. Aoki, and T. Saga. – Tissue redox activity as a hallmark of carcinogenesis: from early to terminal stages of cancer, Clin. Cancer Res., 2013, 19, 2503.

589. Bacic G., A. Pavicevic, and F. Peyrot. – In vivo evaluation of different alterations of redox status by studying pharmacokinetics of nitroxides using magnetic resonance techniques, Redox Biology, 2016, **8**, 226-242.
590. Batinic-Haberle I., A. Tovmasyan, E.R.H. Roberts, Z. Vujaskovic, K.W. Leong, and I. Spasojevic. – SOD therapeutics: Latest insights into their structure-activity relationships and impact on the cellulra redox-based signaling pathways, Antoxid. Redox Signal., 2014, **20**(15), 2372-2415.
591. Bogosavljevic V., M. Bajcetic, and I. Spasojevic. – Comparative analysis of antioxidant systems in malignant and benign brain tumours, Redox Report, 2015, **20**(2), 69-74.
592. Chaiswing L., W. Zhong, and T.D. Oberley. – Increasing discordant antioxidant protein levels and enzymatic activities contribute to increasing redox imbalance observed during human prostate cancer progression, Free Radic. Biol. Med., 2014, **67**, 342-352.
593. Chen Y-J., W-C. Ching, J-S. Chen, T-Y. Lee, C-T. Lu, H-C. Chou, P-Y. Lin, K-H. Khoo, J-H. Chen, and Y-J. Chen. – Decoding the S-nitrosoproteomic atlas in individualized human colorectal cancer tissues using a label-free quantitation strategy, J. Proteome Res., 2014, **13**(11), 4942-4958.

594. Comblatt B., G. Comblatt, A. Bzhelyansky, and R. Henderson. – Compositions comprising sulforaphane or a sulforaphane precursor and mushroom extract or powder, US Patent No. US9421183 B2, Publ. August 23, 2016.
595. Gale E.M., S. Mukherjee, C. Liu, G.S. Loving, and P. Caravan. – Structure-redox-relaxivity relationships for redox responsive manganese-based MRI probes, Inorg. Chem., 2014, **53**(19), 10748-10761.
596. Jorgenson T.C., W. Zhong, and T.D. Oberley. – Redox imbalance and biochemical changes in cancer, Cancer Res., 2013, **73**, 6117.
597. Likhtenshtein G. – Spin labeling methods, Chapter, In: Electron Spin Interactions in Chemistry and Biology, Springer, 2016 (July 23), 289-325 (please, see Google Scholar).
598. Siemianowicz K., W. Likus, and J. Markowski. – Chapter 6: Metalloproteinases in brain tumors, INTECH Open Science, 2015, 115-125 [http://cdn.intechopen.com/pdfs-wm/47495.pdf].
599. Stamenkovic S., A. Pavicevic, M. Mojovic, A. Popovic-Bijelic, V. Selakovic, P. Andhus, and G. Bacic. – In vivo EPR pharmacokinetic evaluation of the redox status and the blood brain barrier permeability in the SOD1G93A ALS rat model, Free Radic. Biol. Med., 2017, **108**, 258-269.
600. Stamenkovic, Stefan P. - Ispitivanje ranih markera procesa neuroinflamacije i oksidativnog stresa u mozgu transgenog hSOD1 G93A pacova kao eksperimentalnog modela amiotrofične lateralne skleroze, PhD Thesis, Racunarski Centar Univerziteta u Beogradu, July 14, 2017 (please, see Google Scholar).
601. Tabaczar S., K. Domeradzka, J. Czepas, J. Piasecka-Zelga, J. Stetkiewicz, K. Gwozdrinski, A. Koceva-Chyla. – Anti-tumor potential of nitroxyl derivative Pirolin in the DMBA-induced rat mammary carcinoma model: A comparison with quercetin, Pharmacol. Reports, 2015, **67**(3), 527-534.
602. Wolff G., J.E. Balke, I.E. Andras, M. Park, and M. Toborek. – Exercise modulates redox-sensitive small GTPase activity in the brain microvasculature in a model of brain metastasis formation, PLoS One, 2014, **9**(5), e97033.

Zhelev Z., R. Bakalova, I. Aoki, D. Lazarova, and T. Saga. – Imaging of superoxide generation in the dopaminergic area of the brain in Parkinson`s disease, using mito-TEMPO, ACS Chem. Neurosci., 2013, 4(11), 1439-1445.

603. Authors in Chinese. – Involvement of mitochondrial reactive oxygen species on paraquat-induced apoptosis in AML12 cells, 癌变·畸变·突变 (Cancer Distortion & Mitation; in Chinese), 2016, (1), 1-7.
604. Bacic G., A. Pavicevic, and F. Peyrot. – In vivo evaluation of different alterations of redox status by studying pharmacokinetics of nitroxides using magnetic resonance techniques, Redox Biology, 2016, **8**, 226-242.
605. Berkowitz B.A., B.X. Bredell, C. Davis, M. Samardzija, C. Grimm, and R. Roberts. –

Measuring in vivo free radical production by the outer retina, Retinal Cell Biol., 2015, **56**(13).
606. Berkowitz B.A., A.S. Lewin, M.R. Biswal, B.X. Bredell, C. Davis, and R. Roberts. – MRI of retinal free radical production with laminar resolution in vivo, Investigative Ophthalmology & Visual Science, 2016, **57**, 577-585.
607. Berkowitz B.A., J. Lenning, N. Khetarpal, C. Tran, J.Y. Wu, A.M. Berri, K. Dernay, E.M. Haacke, F. Shafie-Khorassani, R.H. Podolsky, J.C. Gant, S. Maimaiti, O. Thibault, G.G. Murphy, B.M. Bennett, and R. Roberts. – In vivo imaging of prodromal hippocampus CA1 subfield oxidative stress in models of Alzheimer disease and Angelman syndrome, FASEB J., 2017 [E-pub.: June 7, 2017].
608. Camilleri A., and N. Vassallo. – The centrality of mitochondria in the pathogenesis and treatment of Parkinson` disease, CNS Neurosci. Ther., 2014, **20**(7), 591-602.
609. Caglieris F., L. Melone, F. Canepa, G. Lamura, F. Castiqlione, M. Ferro, L. Malpezzi, A. Mele, C. Punta, P. Franchi, M. Lucarini, B. Rossi, and F. Trotta. – Effective magnetic moment in cyclodextrin-polynitroxides: potential supramolecular vectors for MRI, RSC Adv., 2015, **5**, 76133-76140.
610. Cruz-Haces M., J. Tang, G. Acosta, J. Fernandez, and R. Shi. – Pathological correlations between traumatic brain injury and chronic neurodegenerative diseases, Translational Neurodegeneration, 2017, **6**, 20.
611. Gale E.M., S. Mukherjee, C. Liu, G.S. Loving, and P. Caravan. – Structure-redox-relaxivity relationships for redox responsive manganese-based MRI probes, Inorg. Chem., 2014, **53**(19), 10748-10761.
612. Huang Y-H., J-F. Yang, and S. Lee. – Oxidation of ferrous ion by supeoxo-bridged cobalt complex, Int. J. Eng. Technol. Sci. res., 2015, **2**(6).
613. Leipnitz G., C.R. Vergas, and M. Wajner. – Disturbance of redox homeostasis as a contributing underlying pathomechanism of brain and liver alterations in 3-hydroxy-3-methylglutaryl-CoA lyase deficiency, J. Inherit. Metab. Dis., 2015, **38**(6), 1021-1028.
614. Nguyen H.V-T., Q. Chen, J.T. Paletta, P. Harvey, Y. Jiang, H. Zhang, M.D. Boska, M.F. Ottaviani, A. Jasanoff, A. Rajca, and J.A. Johnson. – Nitroxide-based macromolecular contrast agents with unprecedented transverse relaxivity and stability for MRI of tumors, ACS Cent. Sci., 2017, **3**(7), 800-811.
615. Shi W., L. Bai, J. Guo, and Y. Zhao. – A three dimensional nanoqall of calcein/layered double hydroxide as an electrogenerated chemiluminescence sensor, RSC Adv., 2015, **5**, 89056-89061.
616. Stamenkovic S., A. Pavicevic, M. Mojovic, A. Popovic-Bijelic, V. Selakovic, P. Andjus, and G. Bacic. – In vivo EPR pharmacokinetic evaluation of the redox status and blood brain barrier permeability in the $SOD1^{G93A}$ ALS rat model, Free Radic. Biol. Med., 2017, **108**, 258-269.
617. Zhang Y., and S.G. Martin. – Redox proteins and radiotherapy, Clin. Oncol., 2014, **26**(5),

289-300.

618. Zielonka J., J. Joseph, A. Sikora, M. Hardy, O. Ouari, J. Vasquez-Vivar, G. Zheng, M. Lopez, and B. Kalyanaraman. – Mitochondria-targeted triphenylphosphonium-based compounds: Synthesis, mechanisms of action, and therapeutic and diagnostic applications, Chem. Rev., 2017, **117**(15), 10043-10120.

Bakalova R., E. Georgieva, D. Ivanova, Z. Zhelev, I. Aoki, and T. Saga. – Magnetic resonance imaging of mitochondrial dysfunction and metabolic activity, accompanied by overproduction of superoxide, ACS Chem. Neurosci., 2015, 6(12), 1922-1929.

619. Berkowitz B.A., J. Lening, N. Khetarpal, C. Tran, J.Y. Wu, A.M. Berri, K. Dernay, E.M. Haacke, F. Shafie-Khorassani, R.H. Podolski et al. – In vivo imaging of prodromal hippocampus CA1 subfield oxidative stress in models of Alzheimer disease and Angelman syndrome, FASEB J., 2017, **31**(9), 4179-4186.

620. Berkowitz B.A., R.H. Podolski, J. Lenning, N. Khetarpal, C. Tran, J.Y. Wu, A.M. Berri, K. Dernay, F. Shafie-Khorassani, and R. Roberts. – Sodium iodide prodices a strain-dependent ROS response measured in vivo using QUEST MRI, Invest. Ophthalmol. Visual Sci., 2017, **58**(7), 3286-3293.

621. Zielonka J., J. Joseph, A. Sikora, M. Hardy, O. Ouari, J. Vasquez-Vivar, C. Cheng, L. Lopez, and B. Kalyanaraman. – Mitochondria-targeted triphenylphosphonium-based compounds: Synthesis, mechanisms of action, and therapeutic and diagnostic applications, Chem. Rev., 2017, **117**(15), 10043-10120.

Bakalova R., D. Lazarova, B. Nikolova, S. Atanasova, G. Zlateva, Z. Zhelev, and I. Aoki. – Delivery of size-controlled long-circulating polymersomes in solid tumors, visualized by quantum dots and optical imaging in vivo, Biotechnol. Biotechnol. Equip., 2015, 29(1), 175-180.

622. Feng S-T., H. Li, Y. Luo, H. Cai, Z. Dong, Z. Fang, X. Shuai, and Z-P. Li. – Molecular targeted MRI of human colorectal carcinoma (LoVo) cells using novel superparamagnetic iron oxide-loaded nanoparticles: In vitro and in vivo studies, Curr. Cabcer Drug Targets, 2016, **16**(6).

623. Jenkins R., M.K. Burdette, and S.H. Foulger. – Mini review: fluorescence imaging in cancer cells using dye-doed nanoparticles, RSC Adv., 2016, **6**, 65459-65474.

624. Miller M.A., and R. Weissleder. – Imaging the pharmacology of nanomaterials by intravital microscopy: Toward understanding their biological bihaviour. Adv. Drug Deliv. Rev., 2017, **113**, 61-86.

625. Mohammadi M., M. Ramezani, K. Abnous, and M. Alibolandi. – Biocompatible polymersomes-based cancer theranostics: Towards multifunctional nanomedicine, Int. J. Pharmaceutics, 2017, **519**(1-2), 287-303.

---

626. Shi F., Y. Zhao, C.K.F. Pong, and X. Xu. – Preparation, characterization and pharmacokinetic studies of linalool-loaded nanostructured lipid carriers, Pharmaceutical Biol., 2016, **54**(10), 2320-2328.

627. Tuguntaev R.G., C.O. Ikechukwu, J. Xu, C. Li, P.C. Wang, and X-J. Liang. – Nanoscale polymersomes as anti-cancer drug carriers applied for pharmaceutical delivery, Curr. Pharm. Design, 2016, **22**(19), 2857-2865.

628. Xu G., S. Zeng, B. Zhang, M.T. Swihart, K-T. Yong, and P.N. Prasad. – Ne generation Cd-free QDs for biophotonics and nanomedicine, Chem. Rev., 2016, **116**(19), 12234-12327.

Bakalova R., Z. Zhelev, B. Nikolova, S. Murayama, D. Lazarova, I. Tsoneva, and I. Aoki. – Lymph node mapping using quantum dot-labeled polymersomes, Gen. Physiol. Biophys., 2015, 34(4), 393-398.

629. Sharma D., R. Shrivastava, and G.S. Bisht. – Nanomaterial in diverse biological applications, Metabolic Engineering for Bioactive Compounds, 2017, July 7, 293-317.

Zhelev Z., D. Ivanova D., I. Aoki, T. Saga, and R. Bakalova. – Docosahexaenoic acid sensitizes leukemia lymphocytes to barasertib and everolimus by ROS-dependent mechanism whothout affecting the level of ROS and viability of normal lymphocytes, Anticancer Res., 2016, 36(4), 1673-1682.

630. Chen L., L. Shi, W. Wang, and Y. Zhou. – ABCG2 downregulation in glioma stem cells enhances the therapeutic efficacy of demethoxycurcumin, Oncotarget, 2017, **8**(26), 43237-43247.

631. Jiao Y., B.N. Hannafon, R.R. Zhang, K-M. Fung, and W-Q. Ding. – DHA and disulfiram act in concert to kill cancer cells: a manual enhancement of their anticancer action, Oncotarget, 2017, **8**(11), 17908-17920.

632. OxySelect^{TM} Intracellular ROS Assay Kit (Green Fluorescence), Product Manual, Cat. No. STA-342, STA-342-5, STA-342-T, Cell Biolabs, Inc., US, 2017.

633. Shakeri S., N. Amoozyan, F. Fekrat, and M. Maleki. – Antigastric cancer bioactive Aurantiochytrium oil rich in DHA: From media optimization to cancer cells cytotoxicity assessment, J. Food Sci., 2017, **82**(11), 2706-2718.

634. Song E.A., and H. Kim. – Docosahexaenoic acid induces oxidative DNA damage and apoptosis, and enhances the chemosensitivity of cancer cells, Int. J. Mol. Sci., 2016, **17**(8), 1257.

Zhelev Z., D. Ivanova D., I. Aoki, T. Saga, and R. Bakalova. – 2-Deoxy-D-glucose sensitized cancer cells to barasertib and everolimus by ROS-independent mechanism(s), Anticancer Res., 2015, 35(12), 6623-6632.

635. OxySelect^{TM} Intracellular ROS Assay Kit (Green Fluorescence): Manual, Cell Biolabs, Inc., 2016 (http://www.cellbiolabs.com/sites/default/files/STA-342-ROS-assay-kit.pdf) (please, see Google Scholar).

R. Bakalova, B. Nikolova, S. Murayama, S. Atanasova, Z. Zhelev, I. Aoki, I. Tsoneva, and T. Saga. – Passive and electro-assisted delivery of hydrogel nanoparticles in solid tumors, visualized by optical and magnetic resonance imaging, Anal. Bioanal. Chem., 2016, 408(3), 905-914.

636. Dall`Ara E., M. Boudiffa, C. Taylor, D. Schug, E. Fiegle, A.J. Kennerley, C. Damianou, G.M. Tozer, F. Kiessling, and R. Muller. – Longitudinal imaging of the ageing mouse, Mechanisms of Aging and Development, 2016, **160**, 93-116.

637. Lai W-F., and Z-D. He. – Design and fabrication of hydrogel-based nanoparticulate systems for in vivo drug delivery, J. Controlled Release, 2016, **243**, 269-282.

638. Zhou H-J., Z-W. Ye, Z-F. Yu, M-S. Su, and J-H. Du. – Application of low-field nuclear magnetic resonance and proton magnetic resonance imaging in evaluation "Jinxiu" yellow peach`s storage suitability, Emirates J. Food Agriculture, 2016, **28.9**, 633-643.

Zhelev Z., D. Ivanova D., R. Bakalova, I. Aoki, and T. Higashi. – Inhibition of pentose-phosphate pathway selectively sensitizes leukemia lymphocytes to chemotherapeutics by ROS-independent mechanism, Anticancer Res., 2016, 36(11), 6011-6020.

639. Ahmad S., F. Akhter, U. Shahab, Z. Rafti, M.S. Khan, R. Nabi, M.S. Khan, K. Ahmad, and J.M. Ashraf. – Do all roads lead to the Rome? The glycation perspectove! Seminars in Cancer Biology, 2017 [E-pub: November 4].

640. OxySelect^{TM} Intracellular ROS Assay Kit (Green Fluorescence): Manual, Cell Biolabs, Inc., 2016 (http://www.cellbiolabs.com/sites/default/files/STA-342-ROS-assay-kit.pdf) (please, see Google Scholar).

Atanasova S., B. Nikolova, S. Murayama, E. Stoyanova, I. Tsoneva, Z. Zhelev, I. Aoki, and R. Bakalova. – Electrinduced delivery of hydrogel nanoparticles in Colon 26 cells, visualized by confocal fluorescence system, Anticancer Res., 2016, 36(9), 4601-4606.

641. Hongbao M., M. Young, Z. Yucui, Y. Yan, and Z. Huaijie. – Quantum and cancer biology research literature, Cancer Biol., 2016, 6(4), 109-174..

Zhelev Z., D. Ivanova, R. Bakalova, I. Aoki, and T. Higashi. – Synergistic cytotoxicity of melatonin and new-generation anticancer drugs against leukemia lymphocytes but not normal lymphocytes, Anticancer Res., 2017, 37(1), 149-159.

642. Kast R.E., N. Skuli, S. Cos, G. Karpel-Massler, Y. Shiozawa, R. Goshen, and M-E.

Halatsch. – The ABC7 regimen: a new approach to metastatic breast cancer using seven common drugs to inhibit epithelial-to-mesenchymal transition and augment capecitabine efficacy, Breast Cancer (Dove Med. Press), 2017, **9**, 495-514.

643. OxiSelect™ In Vitro ROS/RNS Assay Kit (Green Fluorescence), Product Manual, Cat. # STA-347, STA-347-5, STA-347-T, Cell Biolabs, Inc., US, 2017.

644. Sardo F.L., P. Muti, G. Blandino, and S. Strano. – Melatonin and hippo pathway: Is there existing cross-talk? Int. J. Mol. Sci., 2017, **18**(9), 1913.

645. Yang Y., R. Zhou, S-Y. Park, K. Back, W.K. Bae, K.K. Kim, and H. Kim. – 2-Hydroxymelatonin, a predominant hydroxylated melatonin metabolite in plants, shows antitumor activity against human colorectal cancer cells, Molecules, 2017, **22**(3), art. 453..

Bakalova R., H. Ohba, Z. Zhelev, M. Ishikawa, Y. Shinohara, and Y. Baba. – Cross-talk between Bcr-Abl tyrosine kinase, protein kinase C and telomerase - a potential reason for resistance to Glivec in chronic myelogenous leukemia, Biochemical Pharmacol., 2003, 66(19), 1879-1884.

646. Hosseini-Asl S.S. – Chapter 2: Telomerase: Basic and Clinical Approaches, In: "Telomere Territory and Cancer" (Ed., P. Mehdipour), Springer, 2013, p. 29 (please, see Google Scholar).

647. Shapira S., G. Granot, R. Mor-Tzuntz, P. Raanani, O. Uziel, M. Lahav, and O. Shpilberg. – Second-generation tyrosine kinase inhibitors reduce telomerase activity in K562 cells, Cancer Lett., 2012, **323**(2), 223-231.

Bakalova R., H. Ohba, Z. Zhelev, M. Ishikawa, and Y. Baba. – Quantum dots as photosensitizers? Nature Biotechnol., 2004, 22(11), 1360-1361.

648. Мирзоян Анаит Ашотовна. – Разработка технологии получения цинкоксидньих композиций хелатов салицилиден аминокислот и противоопухолевого препарата доксорубицин, Автореферат (PhD Thesis), СНС при Национальном политехническом университете Армении, Ереван, 2016 (please, see Google Scholar).

649. Akbarzaden A., S.F. Aval, R. Sheervalilou, L. Fekri, N. Zarghami, and M. Mohammadian. – Quantum dots for biomedical delivery applications, Rev. Cell Biol. Mol. Med., 2016 [E-pub: November 14, 2016].

650. Al-Jamal T., Wafa. – Core-shell semiconductor nanocrystals: Effect on composition, size, surface coatings on their optical properties, toxicity and pharmacokinetics, Curr. Pharm. Design, 2017, **23**(3), 340-349.

651. Amini S.M., S. Kharrazi, M. Hadizadeh, M. Fateh, and R. Saber. – Effect of gold nanoparticles on photodynamic efficiency of 5-aminolevolenic acid photosensitizer in epidermal carcinoma cell line: an in vitro study, IET Nanotechnol., 2013, **7**(3), 151-156.

652. Antunes E., C. Litwinski, and T. Nyokong. – Chapter 9. Conjugates of nanomaterials with

phthalocyanines, In: “Intelligent Nanomaterials: Processes, Properties, and Applications”, Wiley-VCH, E-pub: February 21, 2012.

653. Arumugam A., C. Karthikeyan, A.S.H. Hameed, K. Gopinath, S. Gowri, and V. Karthika. – Synthesis of cerium oxide nanoparticles using Gloriosa superba L. leaf extract and their structural, optical and antibacterial properties, Mater. Sci. Eng. C, 2015, **49**, 408-415.

654. Authors and text in Chinese. – The metal phthalocyanine drug research and development of new progress, Journal of Mudanjiang Medical University, 2012, **33**(2) [in Chinese – web translation].

655. Authors and text in Chinese. – The Quantum Theory Analyses on the Interaction Mechanism of Laser the Polaroia or the Exciton of the Coupled Structure ot the Quantum Dots and the Biomolecule, Journal of Honghe University, 2012, **10**(2) [in Chinese – web translation].

656. Authors and text in Chinese. – Title in Chinese, Acta Laser Biology Sinica, 2013, 33(5) [in Chinese – http://www.cqvip.com/qk/97525a/201305/48144075.html].

657. Authors and text in Chinese. – Progress in the mechanism of cell apoptosis induced quantum dots, Journal of Higiene Research, 2014, **43**(4) [in Chinese – web translation].

658. Authors and text in Chinese. – Nanotechnology in cancer treatment: Application and integration, Chinese Science Bull., 2014, **59**(31), 3009-3024 [in Chinese – web translation].

659. Bajlon-Ruiz S., and O.J. Perales-Perez. – Generation of singlet oxygen by water-stable CdSe(S) and ZnSe(S) quantum dots, Applied Materials Today, 2017, **9**, 161-166.

660. Bergendahl L.T., and M.J. Peterson. – Chapter 8: Comoutational modeling of the steprs involved in photodynamic therapy, In: “Molecular Photochemistry – Various Aspects” (Ed. S. Saha), InTech Europe, 2012, pp. 161-192.

661. Bhat S.S., A. Qurashi, and F.A. Khanday. – ZnO nanostructures based biosensors for cancer and infectious disease applications: Perspectives, prospects and promises, Trends Anal. Chem., 2017, **86**, 1-13.

662. Biswas A., P. Khandelwal, R. Das, G. Salunke, A. Alam, S. Ghorai, S. Chattopadhyay, and P. Poddar. – Oxidant mediated one-step complete conversion of multiwalled carbon nanotubes to graphene quantum dots and their bioactivity against mammalian and bacterial cells, J. Mater. Chem. B, 2017, **5**(4), 785-796.

663. Bruno J.G. – A review of therapeutic aptamer conjugates with emphasis on new approaches, Pharmaceuticals, 2013, **6**(3), 340-357.

664. Chakraborty R., R.K. Sarkar, A.K. Chatterjee, U. Manju, A.P. Chattopadhyay, and T. Basu. – A simple, fast and cost-effective method of synthesis of cupric oxide nanoparticle with promising antibacterial potency: Unraveling the biological and chemical modes of action, BBA-Gen. Subjects, 2015, **1850**(4), 845-856.

665. Chandran R., T.G.St. Denis, D. Vecchio, P. Avci, M. Sadasivam, and M.R. Hamblin. – Chapter 10. Photodynamic therapy, In: “Photonics: Scientific Foundation, Technology and Applications”, Vol. IV, 1st Edition, D.L. Andrews (Ed.), John Wiley & Sons, 2015, p. 413.

666. Chen R., V.D. Ta, F. Xiao, Q. Zhang, and H. Sun. – Multicolor hybrid upconversion

nanoparticles and their improved performance as luminescence temperature sensors due to energy transfer, Small, 2013, **9**(7), 1052-1057.

667. Chinnathambi S., S. Chen, S. Ganesan, and N. Hanagata. – Silicon quantum dots for biological applications, Advanced Healthcare Materials, 2014, **3**(1), 10-29.

668. Choi Y.J., Y.J. Kim, W.J. Lee, Y. Lee, Y.B. Lim, and H.W. Chung. – Cyto-/Genotoxic effect of CdSe/ZnS quantum dots in human lung adenocarcinoma cells for potential photodynamic UV therapy applications, J. Nanosci. Nanotechnol., 2012, **12**(3), 2160-2168.

669. Chu M., X. Pan, D. Zhang, Q. Wu, J.L. Peng, W.X. Hai. – The therapeutic efficiency of CdTe and CdSe quantum dots for photothermal cancer therapy, Biomaterials, 2012, **33**(29), 7071-7083.

670. Dabrowski J.M., B. Pucelik, A. Regiel-Futyra, M. Brindell, O. Mazuryk, A. Kyziol, G. Stochel, W. Macyk, and L.G. Amaut. – Engineering of relevant photodynamic processes through structural modifications of metallotetrapyrrolic photosensitizers, Coordination Chemistry Reviews, 2016, **325**, 67-101.

671. Deshpande M.P., N. Garg, K. Patel, S.V. Bhatt, H. Keharia, and A. Bose. – Structural, thermal and antimicrobial property of CdSe nanoparticles synthesized by chemical route, Arch. Phys. Res., 2013, **4**(5), 32-39.

672. Doak S.H., Y. Liu, and C. Chen. – Genotoxicity and cancer, In: "Adverse Effects of Engineered Nanomaterials: Exposure, Toxicology, and Impact on Human health", Eds. Fadeel B., A. Pietroiusti, and A.A. Shvedova, Acad. Press, 2012, p. 243.

673. Duong H.D., J.W. Lee, and J.I. Rhee. – Enhancement of singlet oxygen production based on FRET between coumarin tricompound and CdSe/ZnS QDs, SPIE Proceedings, Biosensing and Nanomedicine 2014, Vol. 9166.

674. Fadeel B., A. Pietroiusti, and A.A. Shvedova. – Adverse Effects of Engineered Nanomaterials: Exposure, Toxicology, and Impact on Human Health, 2nd Edition, Acad. Press, 2017.

675. Fan Z., P.P. Fu, H. Yu, and P.C. Ray. – Theranostic nanomedicine for cancer detection and treatment, J. Food Drug Anal., 2014, **22**(1), 3-17.

676. Fan J., Y. Sun, S. Wang, Y. Li, X. Zeng, Z. Cao, P. Yang, P. Song, Z. Wang, Z. Xian, H. Gao, Q. Chen, D. Cui, and D. Ju. – Inhibition of autophagy overcomes the nanotoxicity elicited by cadmium-based quantum dots, Biomaterials, 2016, **78**, 102-114.

677. Finlay J.C., and A. Darafsheh. – Light sources, drugs, and dosimetry., Biomed. Optics Otorhinolaryngology, 2016, August 26, 311-336.

678. Fontes A., R.B. de Lira, M.A.B.L. Seabra, T.G. da Silva, A.G. de Castro Neto, and B.S. Santos. – Chapter 12: Quantum dots in biomedical research, InTech Open Science, 2012 (http://dx.doi.org/10.5772/50214).

679. Gaenni M.R., M.S. Ghamsari, M. Tohidian, and M.H.M. Ara. – Nanotechnology: its significance in cancer and photodynamic therapy, Nanomed. J., 2015, **2**(3), 167-174.

680. Ge J., M. Lan, B. Zhou, W. Liu, L. Guo, H. Wang, Q. Jia, G. Niu, X. Huang, H. Zhou, X.

Meng, P. Wang, C-S. Lee, W. Zhang, and X. Han. – A grapheme quantum dot photodynamic therapy agent with high singlet oxygen generation. Nature Commun., 2014, **5**, Art. no. 4596.

681. GhoshMitra S., D.R. Diercks, N.C. Mills, D.L. Hynds, and S. Ghosh. – Role of engineered nanocarriers for axon regeneration and guidance: Current status and future trends, Adv. Drug Deliv. Rev., 2012, **64**(1), 110-125.

682. Gui R., X. Liu, H. Jin, Z. Wang, F. Zhang, J. Xia, M. Yang, S. Bi, and Y. Xia. – N,S co-doped grapheme quantum dots from a single source precursor used for photodynamic cancer therapy under two-photon excitation, Chem. Commun. (Camb.), 2015 [E-pub: January 5, 2015].

683. Guo K., J. Yang, X. Shi, X. Lu, J. Cheng, Y. Wu, Y. Guo, and H. Wang. – A □-extended tetrathiafulvene derivative: Synthesis and photoluminescence properties, Mater. Chem. Phys., 2014, **146**(3), 193-197.

684. Guo Y., K. Feng, Y. Wang, and W. Han. – Targeting cancer stem cells by using chimeric antigen receptor-modified T cells: a ptential and curable approach for cancer treatment, Protein & Cell (Springer), 2017, 1-11 [E-pub: March 13, 2017].

685. Gupta A., P. Avci, M. Sadasivam, R. Chandran, N. Parizotto, D. Vecchio, W.C.M.A. de Melo, T. Dai, L.Y. Chiang, and M.R. Hamblin. – Shining light on nanotechnology to help repair and regeneration, Biotechnol. Advances, 2013, **31**(5), 607-631.

686. Haam S., K. Lee, J. Yang, and Y-M. Huh. – Multifunctional nanocomposites for biomedical applications. In: “Nanotechnologies for the Life Sciences”, E-pub: February 15, 2012.

687. Han X., L. Lai, F. Tian, F.L. Jiang, Q. Xiao, Y. Li, Q.Y. Yu, D.W. Li, J. Wang, Q.M. Zhang, B.F. Zhu, R. Li, and Y. Liu. – Toxicity of CdTe quantum dots on yeast Saccharomyces cerevisiae, Small, 2012, **8**(17), 2680-2689.

688. He Y., A. del Valle, Y. Qian, and Y-F. Huang. – NIR light-mediated enhancement of ROS generation through electron transfer from graphene oxide to iron hydroxide/oxide, Nanoscale, 2017, **9**(4), 1559-1566.

689. Hildebrandt N., C.M. Spillmann, W.R. Algar, T. Pons, M.H. Stewart, E. Oh, K. Susumi, S.A. Diaz, J.B. Delehanty, and I.L. Medintz. – Energy transfer with semiconductor quantum dot bioconjugates: A versatile platform for biosensing, energy harvesting, and other developing applications, Chem. Rev., 2017, **117**(2), 536-711.

690. Hong I-S., G-B. Jang, H-Y. Lee, and J-S. Nam. – Targeting cancer stem cells by using the nanoparticles, Int. J. Nanomed., 2015, **10**(Spec. iss.), 251-260.

691. Huang X., J. Wang, H. Liu, T. Lan, and J. Ren. – Quantum dot-based FRET for sensitive determination of hydrogen peroxide and glucose using tyramide reaction, Talanta, 2013, **106**, 79-84.

692. Huang Y-Y., S.K. Sharma, T. Dai, H. Chung, A. Yaroslavsky, M. Garcia-Diaz, J. Chang, L.Y. Chiang, and M.R. Hamblin. – Can nanotechnology potentiate photodynamic therapy? Nanotechnology Reviewes, 2012, **1**(2), 111-146.

693. Jabir N.R., S. Tabrez, G.M. Ashraf, S. Shakil, G.A. Damanhouri, and M.A. Kamai. –

Nanotechnology-based approaches in anticancer research, Int. J. Nanomed., 2012, **7**, 4391-4408.
694. Jahanban-Esfahlan R., M. de la Guardia, D. Ahmadi, and B. Yousefi. – Modulating tumor hypoxia by nanomedicine for effective cancer therapy, J. Cell. Pathol., 2017 [E-pub: April; DOI: 10.1002/jcp.25859].
695. Jhonsi, Asha. – Investigations on the Photoinduced Interaction of Certain Porphyrins, Xanthene Dyes and Albumins with Colloidal CdX (X = Sulphur, Selenium and Tellurium) Semiconductor Nanoparticles, PhD Thesis, September 26, 2012, Bharathidasan University (please, see Google Scholar).
696. Juhee P., and W.J. Kim. – Current status of gene delivery: spitlight on nanomaterial-polymer hybrids, J. Drug Targeting, 2012, **20**(8), 648-666.
697. Juzenas P., A. Klenauskas, P. George Luo, Y-P. Sun. – Photoactiviyable carbon nanofots for cancer therapy, Appl. Phys. Lett., 2013, **103**(6), Art. No. 063701.
698. Kamkaew A., F. Chen, Y. Zhan, R.L. Majewski, and W. Cai. – Scintillating nanoparticles as energy mediators for enhanced photodynamic therapy, ACS Nano, 2016, **10**(4), 3918-3935.
699. Karabanovas V., A. Skripka, J. Valanciunaite, R. Kubiliute, V. Poderys, and R. Rotomskis. – Formation of self-assembled quantum dot-chlorin e6 complex: influence of nanoparticles phospholipid coating, J. Nanopart. Res., 2014, **16**, 2508.
700. Karmakar R. – Quantum dots and its method of preparation – revisited, Prajnan O Sadhona – A Science Annual, 2015, **2**, 116-142 (ISSN: 2348-7410).
701. Kashef N., Y-Y. Huang, and M.R. Hamblin. – Advances in antimicrobial photodynamic inactivation at the nanoscale, Nanophotonics, 2017, **6**(5), August 1,
702. Kawasaki H., S. Kumar, G. Li, C. Zeng, D.R. Kauffman, J. Yoshimoto, Y. Iwasaki, and R. Jin. – Generation of singlet oxygen by photoexcited $Au_{25}(SR)_{18}$ clusters, Chem. Mater., 2014, **26**(9), 2777-2788.
703. Kotulska M., J. Kulbacka, and J. Saczko. – Advances in photodynamic therapy assisted by electroporation, Curr. Drug Metab., 2013, **14**(3), 309-318.
704. Kotulska M., J. Kulbacka, and J. Saczko. – Advances in photodynamic therapy assisted by electroporation, Curr. Drug Metab., 2013, **14**(3), 309-318.
705. Kwatra D., A. Venugopal, and S. Anant. – Nanoparticles in radiation therapy: a summary of various approaches to enhance radiosensitization in cancer, Translational Cancer Res., 2013, **2**(4).
706. Li Y., W. Zhang, J. Niu, and Y.S. Chen. – Mechanism of photogenerated ROS and correlation with the antibacterial properties of engineered metal-oxide nanoparticles, ACS Nano, 2012, **6**(6), 5164-5173.
707. Li Y., W. Zhang, K. Li, Y. Yao, J. Niu, and Y. Chen. – Oxidative dissolution of polymer-coated CdSe/ZnS quantum dots under UV irradiation: Mechanisms and kinetics, Environmental Pollution, 2012, **164**, 259-266.
708. Li Y., J. Niu, C. Zhang, Z. Wang, M. Zheng, and E. Shang. – Photoinduced toxic mechanism of metallic nanoparticles towards bacteria in water, Progress in Chemistry, 2013,

DOI: 10.7536/PC130779 [in Chinese – please, see Google Scholar].
709. Li Z., C. Liu, H. Abroshan, D.R. Kauffman, and G. Li. – $Au_{38}S_2(SAdm)_{20}$ photocatalyst for one-step selective aerobic oxidations, ACS Catal., 2017, **7**(5), 3368-3374.
710. Lin B., X. Yao, Y. Zhu, J. Shen, X. Yang, and C. Li. – Multifunctional gadolinium-labeled silica-coated core/shell quantum dots for magnetic resonance and fluorescence imaging of cancer cells, RSC Adv., 2014, **4**, 20641-20648.
711. Liu Q., M.R. Guan, L. Xu, C.Y. Shu, C. Jin, J.P. Zheng, X.H. Fang, Y.J. Yang, and C.R. Wang. – Structural effect and mechanism of C70-carboxyfullerenes as efficient sensitizers against cancer cells, Small, 2012, **8**(13), 2070-2077.
712. Liu K., Z. Zhang, C. Shan, Z. Feng, J. Li, C. Song, Y. Bao, X. Qi, and B. Dong. – A flexible and superhydrophobic upconversion-luminescence-membrane as an ultrasensitive fluorescence sensor for single droplet detection, Light: Science & Applications, 2016, 5.6 (August), e16136.
713. Liu L., Y.Y. Xiao, Y.H. Ji, M.Z. Liu, Y. Chen, Y.L. Zeng, Y.G. Zhang, and L. Jin. – $CuInS_2$/ZnS QD exposure induces developmental toxicity, oxidative stress and DNA damage in rare minnow (Gobiocypris rarus) ambryos and larvae, Comp. Biochem. Physiol. C: Toxicol. Pharmacol., 2017, **198**, 19-27.
714. Lu B., X. Huang, J. Mo, and W. Zhao. – Drug delivery using nanoparticles for cancer stem-like cell targeting, Front. Pharmacol., 2016, **7**, 84.
715. Luengas S.L.P., G.H. Marin, K. Aviles, R.C. Acuna, G. Roque, F.R. Nieto, F. Sanchez, A. Tarditi, L. Rivera, and E. Mansilla. – Enhanced singlet oxygen production by photodynamic therapy and a novel method for its intracellular measurement, Cancer Biother. Radiopharm., 2014, **29**(10), 435-443.
716. Lv G., W. Guo, W. Zhang, T. Zg, S. Li, S. Chen, A.S. Eltahan, D. Wang, Y. Wang, J. Zhang, P.C. Wang, J. Chang, and X-J. Liang. – Near-infrared emission CuIn/ZnS quantum dots: All-in-one theranostic nanomedicines with intrinsic fluorescence/photoacustic imaging for tumor phototherapy, ACS Nano, 2016, **10**(10), 9637-9645.
717. Maksimov E.G., F.-J. Schmitt, M.G. Strakhovskaya, D.A. Gvozdev, T. Friebdrich, V.Z. Paschenko, and A.B. Rubin. – Zinc phthalocyanines and quantum dots conjugates: physical properties and photodynamic therapy, Signpost Open Access Journal of NanoPhotoBioSciences, 2013, **1**, 47-60.
718. Maksimov E.G., D.A. Gvozdev, M.G. Strakhovskaya, and V.Z. Paschenko. – Hybrid structures of polycationic aluminium phthalocyanines and quantum dots, Biochemistry (Moscow), 2015, **80**(3), 323-331.
719. Malik P., N. Gulati, R.K. Malik, and U. Nagaich. – Carbon nanotubes, quantum dots and dendrimers as potential nanodevices for nanotechnology drug delivery systems, Int. J. Pharm. Sci. Nanotechnol., 2013, **6**(3), 2113-2124.
720. Maslov V., A. Orlova. – Combination therapy: Complexing of QDs with tetrapyrrols and other dyes, In: "Photosensitizers in Medicine, Environment, and Security" (Eds. T. Nyokong, V.

Ahsen), Springer, 2012, 352.
721. Maurice V., C. Slostowski, N. Herlih-Boime, and G. Carrot. – Polymer-grafted silicon nanoparticles obtained either via peptide bonding or click chemistry, Macromol. Chem. Phys., 2012, **213**(23), 2498-2503.
722. Maksimov E.G., D.A. Gvozdev, M.G. Strakhovskaya, and V.Z. Paschenko. – Hybrid structures of polycationic aluminum phthalocyanines and quantum dots, Biochemistry (Moscow), 2015, 80(3), 323-331.
723. Midha K., S. Kalra, and M. Nagpal. – Quantum dots in cancer therapy, Int. J. Curr. Sci. Technol., 2015, **3**(19), 130-139.
724. Mishra K. – Zinc oxide nanosclusters for choosy disastrous of tumor cells and potential for medicine freighting uses, Int. J. Chem. Pharm. Sci., 2015, **3**(12), 2213-2224.
725. Mishra V., E. Gurnany, and M.H. Mansoori. – Chapter 13: Quantum dots in targeted delivery of bioactives and imaging, In: "Nanotechnology-Based Approaches for Targeting and Delivery of Druges and Genes" (Mishra V. et al., eds.), Acad. Press, 2017, p. 427.
726. Modani S., M. Kharwade, and M. Nijhawan. – Quantum dots: A novelty of medical field with multiple apllications, Int. J. Curr. Pharm. Res., 2013, **5**(4), 55-59.
727. Mongin C., S. Garakyaraghi, N. Razgoniaeva, M. Zamkov, and F.N. Castellano. – Direct observation of triplet energy transfer from semiconductor nanocrystals, Science, 2016, **351**(6271), 369-372.
728. Nadham A., S. Nazir, M.I. Khan, A. Ayub, B. Muhammad, M. Khan, D.F. Shams, and M. Yasinzai. – Visible-light-responsive ZnCuO nanoparticles: bening photodynamic killers of infectious protozoans, Int. J. Nanomed., 2015, **10**, 6891-6903.
729. Nguyen K.C., W.G. Willmore, and A.F. Tayabali. – Cadmium telluride quantum dots cause oxidative stress leading to extrinsic and intrinsic apoptosis in hepatocellular carcinoma HepG2 cells, Toxicology, 2013, **306**, 114-123.
730. Nyokong T., and E. Antunes. – Influence of nanoparticle materials on the photophysical behavior of phthalocyanines, Corrdination Chem. Rev., 2013, **257**(15-16), 2401-2418.
731. Osifeko O.L., and T. Nyokong. – A comparative physicochemical study of unsymmetrical indium phthalocyanines in the presence of magnetic nanoparticles or quantum dots, J. Coordination Chem., 2016, **69**(6).
732. Osifeko O., and T. Nyokong. – Synthesis and physicochemical properties of zinc and indium phthalocyanines conjugated to quantum dots, gold and magnetic nanoparticles, Dyes and Pigments, 2016, **131**, 186-200.
733. Othman Z.A., M.M. Alam, M. Naushad, and M.F. Khan. – Inorganic nanoparticles and nanomaterials based on titanium (Ti): Applications in medicine, In: "Inorganic Nanomedicine: Synthesis, Characterization and Application" (Eds. A. Al-Ahmed, A.M. Isloor, and M.N. Shaikh), Materials Science Forum, vol. 574, 2013, pp. 21-87
734. Park J., and W.J. Kim. – Current status of gene delivery: spotlight on nanomaterial-polymer hybrids, J. Drug Targeting, 2012, **20**(8), 648-666.

735. Pathakoti K., H.M. Hwang, H. Xu, Z.P. Aguilar, and A. Wang. – In vitro cytotoxicity of CdSe/ZnS quantum dots with different surface coatings to human keratinocytes HaCaT cells, J. Environ. Sci.-China, 2013, **25**(1), 163-171.
736. Peng F., Z. Cao, X. Ji, B. Chu, Y. Su, and Y. He. – Silicon nanostructures for cancer diagnosis and therapy, Nanomedicine, 2015, **10**(13), 2109-2123.
737. Peng C., W. Zhang, H. Gao, Y. Li, X. Tong, K. Li, X. Zhu, Y. Wang, and Y. Chen. – Behavior and potential impacts of metal-based engineered nanoparticles in aquatic environments, Nanomaterials, 2017, **7**(1), 21.
738. Prasad R., A. Bhattacharyya, and Q.D. Nguyen. – Nanotechnology in sustainable agriculture: Recent developments, challenges, and perspectives, Front. Microbiol., 2017, **8**, 1014.
739. Qi K., B. Cheng, J. Yu, and W. Ho. – Review on the improvement of the photocatalytic and antibacterial activities of ZnO, J. Alloys Comp., 2017 [E-pub: August 16].
740. Qiu Y., and J. Cai. – Development of quantum dots for cellular and in vivo animal imaging, Materials Review, 2012, **26**(1) [in Chinese].
741. Rabouw F.T., S.A. den Hartog, T. Senden, and A. Maijerink. – Photonic effects on the Forster resonance energy transfer efficiency, Nature Commun., 2014, **5**, Art. No. 3610.
742. Rabow F.T. – Before there was light: Excited state dynamics in luminescent (nano)materials, PhD Thesis, Utreht University, 2015 [On-line version] (please, see Google Scholar).
743. Rahman M., M.Z. Ahmat, I. Kazmi, S. Akhter, M. Afzal, G. Gupta, F.J. Ahmed, and F. Anwar. – Advancement in multifunctional nanoparticles for effective treatment of cancer, Exp. Opin. Drug Deliv., 2012, **9**(4), 367-381.
744. Roblero-Bartolon G.V., and E. Ramon-gallegos. – Uso de nanoparticulas (NP) en la terapia fotodinamica (photodynamic therapy [PDT]) contra el cancer, Gac. Med. Mex., 2015, **151**, 85-98.
745. Rotomskis R., J. Valanciunaite, A. Skripka, S. Steponkiene, G. Spogis, S. Bagdonas, and G. Streckyte. – Complexes of functionalized quantum dots and chlorine e6 in photodynamic therapy, Lithuanian Journal of Physics, 2013, **53**(1).
746. Sailaja A.K., A.S. Reddy, V. Sreelola, P. Swathi, and Ch. Vineela. – Nanotechnology – An overview, J. Pharm. Nutr. Sci., 2014, **4**, 246-254.
747. Saini R., N.V. Lee, K.Y.P. Liu, and C.F. Poh. – Prospects in the application of photodynamic therapy in oral cancer and premalignant lesions, Cancers, 2016, **8**(9), 83.
748. Sapsford K.E., W.R. Algar, L. Perti, K.B. Gemmill, B.J. Casey, E. Oh, M.H. Stewart, and I.L. Medintz. – Functionalizing nanoparticles with biological molecules: Developing chemistries that facilitate nanotechnology, Chem. Rev., 2013, **111**(3), 1904-2074.
749. Salva, Ronak. – Tumor responsive targeted multifunctional nanosystems for cancer therapy, PhD Thesis, The State University of New Jersy, 2015 (please, see Google Scholar).
750. Valizadeh A., H. Mikaeili, M. Samiei, S.M. Farkhani, N. Zarghami, M. Kouhi, A.

Akbarzadeh, and S. Davaran. – Quantum dots: synthesis, bioapplications, and toxicity, Nanoscale Res. Lett., 2012, **7**, art. 480.

751. Vatansever F., R. Chandran, M. Sabasivam, L.Y. Chiang, and M.R. Hamblin. – Multi-functionality in theranostics nanoparticles: Is more always better? J. Nanomed. Nanotechnol., 2012, **3**(8), 120.

752. Wang H., Z. Shao, M. Bacher, F. Liebner, and T. Rosenau. – Fluorescent cellulose aerogels containing covalently immobilized (ZnS)x(CuInS2)1-x/ZnS (core/shell) quantum dots, Cellulose, 2013, **20**, 2007-3024.

753. Wang D., L. Zhao, H. Ma, H. Zhang, and L-H. Guo. – Quantitative analysis of ROS photogenerated on metal oxide nanoparticles and their bacteria toxicity: The role of superoxide radicals, Envir. Sci. Technol., 2017, **51**(17), 10137-10145.

754. Wong D.Y.Q., and W.H. Ang. – Development of platimum(IV) complexes as anticancer prodrugs: the story so far, COSMOS, 2012, **8**(1).

755. Wu X., F. Tian, J.X. Zhao, and M. Wu. – Evaluating pharmacokinetics and toxicity of luminescent quantum dots, Exp. Opin. Drug. Metab. Toxicol., 2013, **9**(10), 1265-1277.

756. Wu T., Q. Zhan, T. Zhang, S. Ang, J. Ying, K. He, S. Zhang, Y. Xue, and M. Tang. – The protective effects of resveratrol, H_2S and thermotherapy on the cell apoptosis induced by CdTe quantum dots, Toxicol. In Vitro, 2017, **41**, 106-113.

757. Yu J., X. Chu, and Y. Hou. – Stimuli-responsive cancer therapy based on nanoparticles, Chem. Commun. (Camb.), 2014, **50**, 11614-11630..

758. Zhan Q., and M. Tang. – Research advances on apoptosis caused by quantum dots, Biol. Trace Elem. Res., 2014, **161**, 3-12.

759. Zhang L., Y. Li, and J. Yu. – Chemical modification of inorganic nanostructures for targeted and controlled drug delivery in cancer treatment, J. Mater. Chem. B, 2014, **2**, 452-470.

760. Zhang J.Y., S. Chen, P. Wang, D.J. Jiang, D.X. Ban, N.Z. Zhong, G.C. Jiang, H. Li, Z. Hu, J.R. Xiao, Z.G. Zhang, and W.W. Cao. – $NaYbF_4$ nanoparticles as NIR light excited inorganic photosensitizers for deep penetration in photodynamic therapy, Nanoscale, 2017, **9**(8), 2706-2710.

761. Zheng Y., D. Tan, Z. Chen, C. Hu, Z.J. Mao, T.P. Singleton, Y. Zeng, X. Shao, and B. Yin. – A non-genetic approach to labelling acute myeloid leukemia and bone marrow cells with quantum dots, J. Nanosci. Nanotechnol., 2014, **14**(6), 4014-4021.

762. Zhu P., Z. Weng, X. Li, X. Liu, S. Wu, K.W.K. Yeung, X. Wang, Z. Cui, X. Yang, and P.K. Chu. – Biomedical applications of functionalized ZnO nanomaterials: from Biosensors to Bioimaging, Adv. Mater. Interfaces, 2016, **3**(1).

763. Zou X., M. Yao, L. Ma, M. Hossu, X. Han, P. Juzenas, and W. Chen. – X-ray-induced nanoparticle-based photodynamic therapy of cancer, Nanomedicine, 2014, **9**(15), 2339-2351.

Ewis A., Z. Zhelev, R. Bakalova, S. Fukuoka, Y. Shinohara, M. Ishikawa, and Y. Baba. – A hystory of microarray in biomedicine (a review), Expert Review of Molecular Diagnosis, 2005,

5(3), 315-328.

764. D'Aagati V.D., and M. Mengel. – The rise of renal pathology in nephrology: structure illuminates fuction, Am. J. Kidney Dis., 2013, **61**(6), 1016-1025.

765. Dhaun N., C.O. Bellamy, D.C. Cattran, and D.C. Kluth. – Utility of renal biopsy in the clinical management of renal disease, Kidney International, 2014, **85**, 1039-1048.

766. Donaires F.S., P. Godoy, G.S. Leandro, D. Puthier, and E.T. Sakamoto-Hojo. – E2F transcription factors associated with up-regulated genes in glioblastoma, Curr. Biomarkers, 2017, **18**(2), 199-208.

767. Futyma K., P. Miotla, K. Rozynska, M. Zdunek, A. Semczuk, T. Rechberger, and J. Wojcierowski. – Expression of genes encoding extracellular matrix proteins: A macroarray study, Oncology Reports, 2014, **32**(6), 2349-2353.

768. Gimzewski J.K., B. Mishra, and J.C. Reed. – Compositions and methods for analyzing immobilized nucleic acids, US Patent No. US8566038 B2, 2013 (please, see Google Scholar).

769. Li A., and D. Meyre. – Jumping on the train of personalized medicine: A primer for non-geneticist clinicians: Part 1. Fundamental consepts in molecular genetics, Curr. Psychiatry Rev., 2014, **10**(2), 91-100.

770. Maciag K., S.K. Krol, and M. Olszowka. – DNA microarrays and their application in cancer diagnostics and treatment, In: "Biotechnology Progress – Polish Students Interests" (K. Maciag, M. Olszowka, and A. Klein, Eds.), Academic Society of Biotechnology Students Publ., 2014. 93-194 (please, see Google Scholar).

771. Mengel M. – Renalomics: Molecular pathology in kidney biopsies, Surg. Pathol. Clin., 2014, **7**(3), 443-455.

772. Misra, Agam. – Comparison of automated literature based gene-disease association using gene set enrichment analysis, PhD Thesis, The University of New South Wales, 2013 (please, see Google Scholar).

773. Papafragkou E., and M. Kulka (Vega V.A., M. Young, and S. Todd). – Review: Approaches to the viral extraction, detection, and identification of hepatitis viruses, HAV and HEV, in foods, J. AOAC International, 2016, (1), 130-142 (please, see Google Scholar).

774. Pereira A.C., Silva MAD Lima, JC, Paiva P.B. – A bioinformática na pesquisa odontológica brasileira, J. Health. Inform., 2014, **6**(1), 36-37.

775. Ramakrishna K., and P.S. Neelakanta. – DNA microarray data classification via haralick`s parameters, Int. J. Adv. Med. Sci., 2013, **1**(2), 19-28.

776. Reed J., B. Mishra, B. Pittenger, S. Magonov, J. Troke, M.A. Taitell, and J.K. Gimzewski. – Single molecule transcription profiling with AFM, Nanotechnology, **18**, 2007, 044032(15pp).

777. Sola L., P. Gagni, M. Cretich, and M. Chiari. – Surface immobilized hydrogels as versatile reagent reservoirs for microarrays, J. Immunol. Meth., 2013, **391**(1-2), 95-102.

778. Valente, Eduardo. – Development of computational tools for the integrated analysis of DNA microarray data with applications in cancer research, PhD Thesis, Universities of Minho, 2015.

779. Vega V.A., M. Young, and S. Todd. – Laboratory information bulletin: Quantitation of aflatoxin M1 in bovine milk by liquid chromatography with fluorescence detection, Journal of AOAC International, 2016, (1), 174-179.

Bakalova R., Z. Zhelev, and H. Ohba. – Quantum dots open new trends in biosensor evolution, Sensor Lett., 2006, 4(4), 452-454.

780. Gunasekaran S. – Chapter 8: Nanotechnology for food: Principles and Selected Applications, In: "Food Processing: Principles and Applications" (Clark S., S. Jung, and B. Lamsal, Eds.), 2^{nd} Edition, Wiley Blackwell, 2014 (please, see Google Scholar).

Bakalova R., Z. Zhelev, I. Aoki, and I. Kanno. – Designing quantum dot probes, Nature Photonics, 2007, 1(9), 487-489 (статията вкл. оригинални резултати).

781. Ahmed, Syed Rahin. – Development of fluorescent hybrid nanostructures for influenza virus detection and cell imaging, PhD Thesis, Shizuoka University, Japan, 2014 (please, see Google Scholar).
782. Burande M.A., and A.R. Burande. - Nanoparticle and Stem Cell Nanotechnology: Interdisciplinary Research Area Involving Pharmacology and Anatomy, Int. J. Recent Trends Sci. Technol., 2012, **4**(1), 50-58.
783. Chen O., L. Riedemann, F. Etoc, H. Herrmann, M. Coppey, M. Barch, C.T. Farrar, J. Zhao, O.T. Bruns, H. Wei, P. Guo, J. Cui, R. Jensen, Y. Chen, D.K. Harris, J.M. Cordero, Z. Wang, A. Jasanoff, D. Fukumura, R. Reimer et al. – Magneto-fluorescent core-shell supernanoparticles, Nat. Commun., 2014, **5**, Art. No. 5093.
784. Cocilovo B., O.D. Herrera, S. Mehravar, Y. Dang. – Surface-enhanced two-photon excitation fluorescence of various fluorophores evaluated using a multiphoton microscope, Journal of Lightwave Technology, 2015, **33**(16).
785. Cocilovo, Byron. – Applications of textured surfaces for light harvesting, PhD Thesis, The University of Arizona, US, 2016 (please, see Google Scholar).
786. Doane T.L., and C. Burda. – The unique role of nanoparticles in nanomedicine: imaging, drug delivery and therapy, Chem. Soc. Rev., 2012, **41**(7), 2885-2911.
787. Drbohlavova J., J. Chomoucka… (authors in Polish). – Effect of nucleic acid and albumin on luminescence properties of deposited TiO_2 quantum dots, Int. J. Electrochem., 2012, **7**(2), 1424-1432.
788. Jana S., A. Gandhi, K.K. Sen, and S.K. Basu. – Dendrimers: Synthesis, properties, biomedical and drug delivery applications, Am. J. Pharm. Res., 2012, **2**(1), 32-55.
789. Raj R., P. Mongia, S.S. Kumar, and A. Ram. – Nanocarriers based anticancer drugs: Current scenario and future perceptions, Curr. Drug Targets, 2016, **17**(2), 206-228.
790. Ratchford D., F. Shafiei, S.K. Gray, and X.Q. Li. – Polarization properties of a CdSe/ZnS abd Au nanoparticle dimmer, ChemPhysChem, 2012, **13**(10), 2522-2525.
791. Sapsford K.E., W.R. Algar, L. Berti, K.B. Gemmill, B.J. casey, E. Oh, M.H. Stewart, and

I.L. Medintz. – Functionalizing Nanoparticles with Biological Molecules: Developing Chemistries that Facilitate Nanotechnology, Chem. Rev., 2013, **13**(3), 1904-2074.
792. Savla R., and T. Minko. – Nanoparticle design considerations for molecular imaging of apoptosis: Diagnostic, prognostic, and therapeutic value, Adv. Drug Deliv. Rev., 2017, **113**, 122-140.
793. Syed Ranin, Ahmed. – Development of fluorescent hybrid nanostructures for influenza virus detection and cell imaging, PhD Thesis, 2014 (December), Shizuoka University, Japan (please, see Google Scholar).
794. Tang C.Y., L. Skibsbye, L. Yuan, B.H. Bentzen, and T. Jespersen. – Biophysical characterization of inwardly rectifying potassium currents (I-K1, I-K,I-Ach, I-K,I-Ca) using sinus rhythm or atrial fibrillation action potential waveforms, Gen. Physiol. Biophys., 2015, **34**(4), 383-398.
795. Tomczak N., D. Janczewski, D. Dorokin, M-Y. Han, and G.J. Vancso. – Enabling biomedical research with designer quantum dots, Meth. Mol. Biol. 2012, **811**, 245-265.
796. Tsukasaki Y., A. Komatsizaki, Y. Mori, Q. Ma, Y. Yoshioka, and T. Jin. – A short-wavelength infrared emitting multimodal probe for non-invasive visialuzation of phagocyte cell migration in living mice, Chem. Commun., 2014, **50**(92), 14356-14359.
797. Yao, J., M. Yang, and Y. Duan. – Chemistry, biology, and medicine of fluorescent nanomaterials and related systems: New insights into biosensing, bioimaging, genomics, diagnostics, and therapy, Chem. Rev., 2014, **114**(12), 6130-6178.

Bakalova R., Z. Zhelev, and V. Gadjeva. – Quantum dots versus organic fluorophores in fluorescent deep-tissue imaging – merits and demerits, Gen. Physiol. Biophys., 2008, 27(4), 231-242.

798. Демченко А.П., Б.И. Назаренко. – Нанобиотехнология: шлях у новий микросвит, створенийсинтезом химии та биологии, Биотехнология, 2012, **5**(2), 9-30.
799. Demchenko A.P. – Nanoparticles and nanocomposites for fluorescence sensing and imaging, Meth. Appl. Fluor., 2013, **1**(2), art. 022001.
800. Dileep K.V., M. Kelly, E. Hardin, C. Sadasivan, and H.B. Nair. – Approaches in the chemoprevention of breast cancer, J. Cancer Sci. Ther., 2013, **5**(8), 282-288.
801. Nayef L., J.S. Rendon, R. Mattys, R.C. Hamdy, and M. Tabrizian. – Liposome encapsulated quantum dots show efficient in vivo retention of a nanoparticulate drug delivery system at its target in a rat model of distraction osteogenesis, J. Nanopharm. Drug. Deliv., 2014, **2**(2), 93-102.
802. Tang C.Y., L. Skibsbye, L. Yuan, B.H. Bentzen, and T. Jespersen. – Biophysical characterization of inwardly rectifying potassium currents (I-K1, I-K,I-Ach, I-K,I-Ca) using sinus rhythm or atrial fibrillation action potential waveforms, Gen. Physiol. Biophys., 2015, **34**(4), 383-398.

R. Bakalova, Z. Zhelev, and L. Spasov. – Nilotinib versus Imatinib: Molecular mechanisms of its better efficiency, Cancer, 2012, 118(20), 5180-5181.

803. Nikolini F.E., P. W. Manley, W. Paul, and T.H. Bruemmendorf. – Reply to Nilotinib versus Imatinib: Molecular mechanisms of its better efficiency, Cancer, 2012, **118**(20), 5181-5182.
804. Piccaluga P.P., S. Paolini, C. Bertuzzi, A. De Leo, and G. Rosti. – First-line treatment of CML with nilotinib: critical evaluation, J. Blood Med., 2012, **3**, 151-156.
805. Wang H., J. Jin, Y. Wang, X. Huang, and J. Huang. – Clonal chromosomal abnormalities in Philadelphia-negative cells in chronic myeloid leukemia patients treated with nilotinib used in first-line therapy, Ann. Hematol., 2013, **92**, 1625-1632.

Ivanova D., R. Bakalova, Lazarova D., Gadjeva V., and Z. Zhelev. – The impact of reactive oxygen species in anticancer therapeutic strategies, Adv. Clin. Exp. Med., 2013, 22(6), 899-908.

806. Chen J. – Reactive oxygen species and drug resistance in cancer. Austin J. Clin. Pathol., 2014, 1(4), 1017.
807. Chen C., F. Jia, Z. Hou, S. Ruan, and O. Li. – Delivery of paeonol by nanoparticles enhances its in vitro and in vivo antitumor effects, Int. J. Nanomed., 2017, **12**, 6605-6616.
808. Coricovac D.E., and C.A. Dehelean. – Chapter 1: Pathological aspects with global impact induced by toxicants at cellular level. In: “INTECH”, 2016, 3-21. Please, see: http://dx.doi.org/10.5772/59945 [http://cdn.intechopen.com/pdfs-wm/48151.pdf].
809. Cusimano A., D. Balasus, A. Azzolina, G. Augello, M.R. Emma, C. DiSano, R. Gramignoli, S.C. Strom, J.A. McCubrey, G. Montalto, and M. Cervello. – Oleocanthal exerts antitumor effects on human liver and colon cancer cells throgh ROS generation, Int. J. Oncol., 2017, **51**(2), 533-544.
810. Cuya S.M., E.Q. Comeaux, K. Wanzeck, K.J. Yoon, and R. van Waardenburg. – Dysregulated human Tyrosyl-DNA phosphodiesterase I acts as cellular toxin, Oncotarget, 2016, **7**(52), 86660-86674.
811. Del Pino J., P. V. Moyano-Cires, M. J. Anadon, M. J. Díaz, M. Lobo, M. A. Capo, and M. T. Frejo. – Molecular mechanisms of amitraz mammalian toxicity: A comprehensive review of existing data. Chem. Res. Toxicol., 2015, **28**, 1073.
812. Farooqi A.A., S. Fayyaz, M.-F. Hou, K.-T. Li, J.-Y. Tang, and H.-W. Chang. – Reactive oxygen species and autophagy modulation in non-marine drugs and marine drugs. Mar. Drugs, 2014, **12**, 5408.
813. Farooqi A.A., K-Z. Li, S. Fayyaz, Y-T. Chang, M. Ismail, C-C. Liaw, S-S. F. Yuan, J-Y. Tang, and H-W. Chang. – Anticancer drugs for the modulation of endoplasmic reticulum stress and oxidative stress. Tumor Biol., 2015, **36**, 5743-5752.

814. Gil Ibanez, Ines. – Ligand-independent IL-6 pathway activation (L-gp130) accelerates the transformation of proliferating human hepatocytes via increased oxidative stress in comparison to ligand-dependent IL-6 pathway activation (Hyper-IL-6), PhD Thesis, 2015, University of Hamburg, Germany (please, see Google Scholar).

815. Guesmi F., S. Prasad, A.K. Tyagi, and A. Landoulsi. – Bioactive compounds from oily fractions and hydrolate of Teucrium alopecurus truggered apoptotic events dependent of caspase activation and PARP cleavage in human colon cancer cells through decreased protein expressions, Int. J. Mol. Sci., 2017, **18**, 1-18.

816. Guo L., A.A. Shestov, A.J. Worth, K. Nath, D.S. Nelson, D.B. Leeper, J.D. Glickson, and I.A. Blair. – Inhibition of mitochondrial complex II by the anti-cancer agent lonidamine, J. Biol. Chem., 2016, **291**, 42-57.

817. Hamdoun S., P. Jung, and T. Efferth. – Drug repurposing of the anthelmintic miclosamide to treat multidrug-resistant leukemia, Front. Pharmacol., 2017, **8**, 110.

818. Hedman, Heidi. – Defining orellanine as treatment of advanced renal cell carcinoma. PhD Thesis, Institute of Medicine, University of Gothenburg, 2014.

819. Iwabuchi T., C. Yoshimoto, H. Shigetomi, and H. Kobayashi. – Oxidative stress and antioxidant defence in endometrosis and its malignant transformation. Oxidative Medicine and Cellular Longevity, 2015, art. ID 848595.

820. Karakoc, Akar. – Hipertiroidili siçanlarin kalp dokusundaki oksidatif stres parametreleri üzerine egzersizin etkisinin araştirilmasi. PhD Thesis, Ataturk University, Turkey, 2015 [in Turkish].

821. Karimlo F.K., F. Mashayekhi, Z.Z. Sorouri, M.H. Bahador, and Z. Salehi. – Association of GSTM1 and GSTT1 gene polymorphisms and in vitro fertilisation outcome in a population in northern Iran. J. Obstetrics and Gynaecology, 2015, 35, 46.

822. Kim D., J. Dai, L.Y. Fai, H. Yao, Y.-O. Son, L. Wang, P. Pratheeshkumar, K. Kondo, X. Shi, and Z. Zhang. – Constitutive activation of epidermal growth factor receptor promotes tumorigenesis of Cr(VI)-transformed cells through decreased reactive oxygen species and apoptosis resistance development. J. Biol. Chem., 2015, **290**, 2213-2224.

823. Kim S., D.E. Kim, T.K. Kwon, J. Lee, and J-W. Parl. – The multi-target drug BAI indices apoptosis in various human cancer cells through modulation of Bcl-xL protein, Int. J. Oncol., 2016, **49**(6), 2620-2628.

824. Kumar R., G. Deep, M.F. Wempe, J. Surek, A. Kumar, R. Agarwal, and C. Agarwal. – Procyanidin B2 3,3``-di-O-gallate induces oxidative stress-mediated cell death in prostate cancer cells via inhibiting MAP kinase phosphatase activity and activating ERK1/2 and AMPK, Mol. Carcinogenesis, 2017 [E-pub: September 22, 2017].

825. Liu J.-F., C.-H. Hou, F.-L. Lin, Y.-T. Tsao, and S.-M. Hou. – Nimbolide induces ROS-regulated apoptosis and inhibits cell migration in osteosarcoma, Int. J. Mol. Sci., 2015, **16**(10), 23405-23424.

826. Liu Z., W. Yang, G. Long, and C. Wei. – Trace elements and chemotherapy sensitivity, Biol.

Trace Element Res., 2016, **173**(2), 283-290.
827. Maurya A.K., and M. Vinayak. – Modulation of PKC signaling and induction of apoptosis through suppression of ROS and tumor necrosis factor receptor 1 (TNFR1): key role of quercetin in cancer prevention. Tumor Biol., 2015, **36**, 8913-8924.
828. Megiorni F., H.P. McDowell, S. Camero, O. Mannarino, S. Ceccarelli, M. Paiano, P.D. Losty, B. Pizer, R. Shukla, A. Pizzuti, A. Clerico, and C. Dominici. – Crizotinib-induced antitumor activity in human alveolar rhabdomyosarcoma cells is not solely dependent on ALK and MET inhibition, J. Exp. Clin. Cancer Res., 2015, **34**, 112.
829. Meher P.K., and K.P. Mishra. – Radiation oxidative stress in cancer induction and prevention, J. Radiation Cancer Res., 2017, **8**(1), 44-52.
830. Mileo A.M. and S. Miccadel. – Polyphenols as modulator of oxidative stress in cancer disease: New therapeutic strategies, In: “Oxidative Medicine and Cellular Longevity”, Hindawi Publication Corporation, 2015, Art. ID 574561.
831. Mileo A.M., D. Di Venere, and S. Miccadei. – Antitumor effects of artichoke polyphenols: cell death and ROS-mediated epigenetic growth arrest, Stem Cell Epigenetics, 2016, **3**.
832. Najeeb, Hishyar Azo. – Redox modulation of oxidatively induced DNA damage by ascorbate enhances melanoma cancer cell DNA damage formation and cell killing, PhD Thesis, 2015, University of Leicester, UK (please, see Google Scholar).
833. Nikolini F.E., P. W. Manley, W. Paul, and T.H. Bruemmendorf. – Reply to Nilotinib versus Imatinib: Molecular mechanisms of its better efficiency, Cancer, 2012, **118**(20), 5181-5182.
834. Ndombera F.T., G.C. VanHecke, S. Nagi, and Y-H. Ahn. – Carbohydrate-based inducers of cellular stress for targeting cancer cells, Bioorg. Med. Chem. Lett., 2016, **26**(5), 1452-1456.
835. Pi J., H. Cai, H. Jin, F. Yang, J. Jiang, A. Wu, H. Zhu, J. Liu, X. Su, P. Yang, and J. Cai. – Qualitative and quantitative analysis of ROS-mediated oridonin-induced oesophageal cancer KYSE-150 cell apoptosis by atomic force microscoy, PloS One, 2015 [E-pub: October 23].
836. Raza M.H., S. Siraj, A. Arshad, U. Waheed, F. Aldakheel, S. Alduraywish, and M. Arshad. – ROS-modulated therapeutic approaches in cancer treatment, J. Cancer Res. Clin. Oncol., 2017, **143**(9), 1789-1809.
837. Rodrigues P., G. de Marco, J. Furriol, M.L. Mansego, M. Pineda-Alonso, A, Gonzales-Neira, J.C. Martin-Escudero, J. Benitez, A. Lluch, F.J. Chaves, and P. Eroles. – Oxidative stress in susceptibility to breast cancer: study in Spanish population. BMC Cancer, 2014, **14**, 861.
838. Saitoh Y., M. Ikeshima, N. Kawasaki, A. Masumoto, and N. Miwa. – Transient generation of hydrogen peroxide is responsible for carcinostatic effects of hydrogen combined with platimun nanocolloid, together with increases intracellular ROS, DNA cleavages, and proportion of G2/M-phase, Free Radic. Res., 2016, **50**, 385-395.
839. Solis-Carelo C., J. Ortega-Castro, J. Frau, and F. Munoz. – Nonenzymatic reactions above phospholipid surfaces of biological membranes: Reactivity of phospholipids and their oxidation

derivatives. Oxidative Medicine and Cellular Longevity, 2015, art. ID 319505.
840. Song E.A., and H. Kim.- Docosahexaenoic acid induces oxidative DNA damage and apoptosis, and enhances the chemosensitivity of cancer cells, Int. J. Mol. Sci., 2016, **17**(8), 1257.
841. Tomasetti M., L. Santarelli, R. Alleva, L.-F. Dong, and J. Neuzil. – Redox-active and redox-silent compounds: Synergistic therapeutics in cancer. Curr. Med. Chem., 2015, **22**, 552.
842. Tsai M-H., J-F. Liu, Y-C. Chiang, S. C-S. Hu, L-F. Hsu, Y-C. Lin, Z-C. Lin, H-C. Lee, M-C. Chen, C-L. Huang, and C-W. Lee, - Artocaprin, an isoprenyl flavonoid, induces p53-dependent or independent apoptosis via ROS-mediated MAPKs and Akt activation in non-small cell lung cancer cells, Oncotarget, 2017, **8**(17), 28342-28358.
843. Wang L.-H., H.-H. Li, M. Li, S. Wang, X.-R. Jiang, Y. Li, G.-F. Ping, Q. Cao, X. Liu, W.-H. Fang, G.-L. Chen, J.-Y. Yang, and C.-F. Wu. – SL4, a chalcone-based compound, indices apoptosis in human cells by activation of the ROS/MAPK signaling pathway, Cell Proliferation, 2015, **48**(6), 718-728.
844. Xia C., R. Chen, J. Chen, Q. Qi, Y. Pan, L. Du, G. Xiao, and S. Jiang. – Combining metformin and nelfinavir exhibits synergistic effects against the growth of human cervical cancer cells and xenografts in nude mice, Sci. Rep., 2017, **7**, 43373.
845. Xu J., J. Cai, X. Jin, J. Yang, Q. Shen, X. Ding, and Y. Liang. – PIG3 plays an oncogenic role in papillary thyroid cancer by activating the PI3K/AKT/PTEN pathway. Oncology Reports, 2015, **34**(3), 1424-1430.
846. Zhang L., K. Wang, Y. Lei, Q. Li, E.C. Nice, and C. Huang. – Redox signalling: Potential arbitrator of autophagy and apoptosis in therapeutic response, Free Radic. Biol. Med., 2015, **89**, 452-465.
847. Zhou X., J.A. Paredes, S. Krishnan, S. Curbo, and A. Karlsson. – The mitochondrial carrier SLC25A10 regulates cancer cell growth, Oncotarget, 2015, **6**(11), 9271-9283.

Ivanova D., <u>Z. Zhelev</u>, I. Aoki, R. Bakalova, and T. Higashi. – Overproduction of ROS – obligatory or not for induction of apoptosis by anticancer drugs, Chin. J. Cancer Res., 2016, 28(4), 383-396.

848. Aguilera G., A.L. Colin-Gonzalez, E. Rangel-Lopez, A. Chavarria, and A. Santamaria. – Redox signaling, neuroinflammation, and neurodegeneration, Antioxid. Redox Signal., 2017 [E-pub: June 6, 2017].
849. Li W., K.N. Yu, J. Ma, J. Shen, C. Cheng, F. Zhou, Z. Cai, and W. Han. – Non-thermal plasma induces mitochondria-mediated apoptotic signaling pathway via ROS generation in HeLa cells, Arch. Biochem. Biophys., 2017 [E-pub: September 9, 2017].
850. Ma H., M. Yang, Y. Zhu, Y. Yang, and H. Zhu. – Quantum and cancer biology research literatures, Cancer Biol., 2016, **6**(4), 109-174.
851. Mehmood T., A. Maryam, H.A. Ghramh, M. Khan, and T. Ma. – Deoxyelephantopin and

isodeoxyelephantopin as potential anticancer agents with effects on multiple signalling pathways, Molecules, 2017, **22**(6), 1013.
852. O`Connor J-F., G. Herrera, F. Sala de Oyanguren, B. Javega, and A. Martinez-Romero. – Cytomics of oxidative stress: probes and problems, Single Cell Analysis (Springer), 2017, 83-118.
853. Sala de Oyanguren, Francisco Jose. – Development and validation of new methods for the study of oxidative stress by imaging flow cytometry, PhD Thesis, Texas University, 2017 (please, see Google Scholar).

Ж. Желев
Списък на цитиранията
септември, 2017 г.