

Dzmitry G Shcharbin

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

104
papers

2,320
citations

29
h-index

44
g-index

108
ext. papers

2,554
ext. citations

5.1
avg, IF

4.82
L-index

| # | Paper | IF | Citations |
|-----|---|-----|-----------|
| 104 | Interaction of polyamidoamine dendrimers and amphiphilic dendrons with lipid membranes. <i>Vestsi Natsyianalmai Akademii Navuk Belarusi Seryia Biialahichnykh Navuk</i> , 2021 , 66, 497-512 | 0.2 | |
| 103 | Nanoparticles in Combating Cancer: Opportunities and Limitations. A Brief Review. <i>Current Medicinal Chemistry</i> , 2021 , 28, 346-359 | 4.3 | 16 |
| 102 | Comparison of the effects of dendrimer, micelle and silver nanoparticles on phospholipase A2 structure. <i>Journal of Biotechnology</i> , 2021 , 331, 48-52 | 3.7 | 1 |
| 101 | Evaluation of dendronized gold nanoparticles as siRNAs carriers into cancer cells. <i>Journal of Molecular Liquids</i> , 2021 , 324, 114726 | 6 | 6 |
| 100 | In vivo therapeutic applications of phosphorus dendrimers: state of the art. <i>Drug Discovery Today</i> , 2021 , 26, 677-689 | 8.8 | 10 |
| 99 | Combined therapy of ruthenium dendrimers and anti-cancer drugs against human leukemic cells. <i>Dalton Transactions</i> , 2021 , 50, 9500-9511 | 4.3 | 3 |
| 98 | Hybrid phosphorus-biologen dendrimers as new soft nanoparticles: design and properties. <i>Organic Chemistry Frontiers</i> , 2021 , 8, 4607-4622 | 5.2 | 2 |
| 97 | Circulating tumor cells and circulating cancer stem cells and their detection by the method of flow cytometry. <i>Vestsi Natsyianalmai Akademii Navuk Belarusi Seryia Biialahichnykh Navuk</i> , 2021 , 66, 370-384 | 0.2 | |
| 96 | Prospects of Cationic Carboxilane Dendronized Gold Nanoparticles as Non-viral Vectors for Delivery of Anticancer siRNAs siBCL-xL and siMCL-1. <i>Pharmaceutics</i> , 2021 , 13, | 6.4 | 2 |
| 95 | Ruthenium Dendrimers against Human Lymphoblastic Leukemia 1301 Cells. <i>International Journal of Molecular Sciences</i> , 2020 , 21, | 6.3 | 7 |
| 94 | Generation Dependent Effects and Entrance to Mitochondria of Hybrid Dendrimers on Normal and Cancer Neuronal Cells In Vitro. <i>Biomolecules</i> , 2020 , 10, | 5.9 | 5 |
| 93 | A new application of inorganic sorbent for biomolecules: IMAC practice of Fe-nano flowers for DNA separation. <i>Materials Science and Engineering C</i> , 2020 , 113, 111020 | 8.3 | 7 |
| 92 | Interactions of dendrimers and dendronized nanoparticles with proteins. <i>Vestsi Natsyianalmai Akademii Navuk Belarusi Seryia Biialahichnykh Navuk</i> , 2020 , 65, 497-509 | 0.2 | |
| 91 | Effect of PEGylation on the biological properties of cationic carboxilane dendronized gold nanoparticles. <i>International Journal of Pharmaceutics</i> , 2020 , 573, 118867 | 6.5 | 6 |
| 90 | Phosphorus dendrimers as powerful nanoplatforms for drug delivery, as fluorescent probes and for liposome interaction studies: A concise overview. <i>European Journal of Medicinal Chemistry</i> , 2020 , 208, 112788 | 6.8 | 7 |
| 89 | Synthesis and Characterization of FITC Labelled Ruthenium Dendrimer as a Prospective Anticancer Drug. <i>Biomolecules</i> , 2019 , 9, | 5.9 | 13 |
| 88 | Immunoreactivity changes of human serum albumin and alpha-1-microglobulin induced by their interaction with dendrimers. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019 , 179, 226-232 | 6 | 2 |

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| 87 | Ruthenium dendrimers against acute promyelocytic leukemia: Studies on HL-60 cells. <i>Future Medicinal Chemistry</i> , 2019 , 11, 1741-1756 | 4.1 | 9 |
| 86 | Dendrimers and hyperbranched structures for biomedical applications. <i>European Polymer Journal</i> , 2019 , 119, 61-73 | 5.2 | 65 |
| 85 | Hybrid metal-organic nanoflowers and their application in biotechnology and medicine. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019 , 182, 110354 | 6 | 30 |
| 84 | Hybride metall-organic nanoflowers and their applications in biotechnology. <i>Vestsi Natsyianalmai Akademii Navuk Belarusi Seryia Biialahichnykh Navuk</i> , 2019 , 64, 374-384 | 0.2 | |
| 83 | Complexes of Pro-Apoptotic siRNAs and Carbosilane Dendrimers: Formation and Effect on Cancer Cells. <i>Pharmaceutics</i> , 2019 , 11, | 6.4 | 16 |
| 82 | Ruthenium dendrimers as carriers for anticancer siRNA. <i>Journal of Inorganic Biochemistry</i> , 2018 , 181, 18-27 | 4.2 | 24 |
| 81 | Role of cationic carbosilane dendrons and metallic core of functionalized gold nanoparticles in their interaction with human serum albumin. <i>International Journal of Biological Macromolecules</i> , 2018 , 118, 1773-1780 | 7.9 | 9 |
| 80 | Phosphorus Dendrimers as Vectors for Gene Therapy in Cancer 2018 , 227-244 | | |
| 79 | Dendronization of gold nanoparticles decreases their effect on human alpha-1-microglobulin. <i>International Journal of Biological Macromolecules</i> , 2018 , 108, 936-941 | 7.9 | 9 |
| 78 | Dendrimers Show Promise for siRNA and microRNA Therapeutics. <i>Pharmaceutics</i> , 2018 , 10, | 6.4 | 57 |
| 77 | Dendrimer-protein interactions versus dendrimer-based nanomedicine. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017 , 152, 414-422 | 6 | 34 |
| 76 | Binding of poly(amidoamine), carbosilane, phosphorus and hybrid dendrimers to thrombin-Constants and mechanisms. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017 , 155, 11-16 | 6 | 7 |
| 75 | Gold nanoparticles stabilized by cationic carbosilane dendrons: synthesis and biological properties. <i>Dalton Transactions</i> , 2017 , 46, 8736-8745 | 4.3 | 18 |
| 74 | Ruthenium metallodendrimers with anticancer potential in an acute promyelocytic leukemia cell line (HL60). <i>European Polymer Journal</i> , 2017 , 87, 39-47 | 5.2 | 22 |
| 73 | Multi-Target Inhibition of Cancer Cell Growth by SiRNA Cocktails and 5-Fluorouracil Using Effective Piperidine-Terminated Phosphorus Dendrimers. <i>Colloids and Interfaces</i> , 2017 , 1, 6 | 3 | 21 |
| 72 | Can dendrimer based nanoparticles fight neurodegenerative diseases? Current situation versus other established approaches. <i>Progress in Polymer Science</i> , 2017 , 64, 23-51 | 29.6 | 42 |
| 71 | Interaction between dendrimers and regulatory proteins. Comparison of effects of carbosilane and carbosilane-biologen-phosphorus dendrimers. <i>RSC Advances</i> , 2016 , 6, 97546-97554 | 3.7 | 9 |
| 70 | Effect of dendrimers on selected enzymes--Evaluation of nano carriers. <i>International Journal of Pharmaceutics</i> , 2016 , 499, 247-254 | 6.5 | 16 |

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| 69 | Phosphorus-containing nanoparticles: biomedical patents review. <i>Expert Opinion on Therapeutic Patents</i> , 2015 , 25, 539-48 | 6.8 | 5 |
| 68 | Nanoparticle corona for proteins: mechanisms of interaction between dendrimers and proteins. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015 , 134, 377-83 | 6 | 28 |
| 67 | Anticancer siRNA cocktails as a novel tool to treat cancer cells. Part (A). Mechanisms of interaction. <i>International Journal of Pharmaceutics</i> , 2015 , 485, 261-9 | 6.5 | 56 |
| 66 | Anticancer siRNA cocktails as a novel tool to treat cancer cells. Part (B). Efficiency of pharmacological action. <i>International Journal of Pharmaceutics</i> , 2015 , 485, 288-94 | 6.5 | 61 |
| 65 | Fluorescent Phosphorus Dendrimer as a Spectral Nanosensor for Macrophage Polarization and Fate Tracking in Spinal Cord Injury. <i>Macromolecular Bioscience</i> , 2015 , 15, 1523-34 | 5.5 | 27 |
| 64 | Dendrimers complexed with HIV-1 peptides interact with liposomes and lipid monolayers. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2015 , 1848, 907-15 | 3.8 | 18 |
| 63 | Stabilizing effect of small concentrations of PAMAM dendrimers at the insulin aggregation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014 , 116, 757-60 | 6 | 19 |
| 62 | Aligned collagen-GAG matrix as a 3D substrate for Schwann cell migration and dendrimer-based gene delivery. <i>Journal of Materials Science: Materials in Medicine</i> , 2014 , 25, 1979-89 | 4.5 | 7 |
| 61 | Interference of cationic polymeric nanoparticles with clinical chemistry tests--clinical relevance. <i>International Journal of Pharmaceutics</i> , 2014 , 473, 599-606 | 6.5 | 13 |
| 60 | The influence of heterocyclic compound-PAMAM dendrimer complexes on evoked electrical responses in slices of hypoxic brain tissue. <i>Cellular and Molecular Biology Letters</i> , 2014 , 19, 243-8 | 8.1 | 1 |
| 59 | Recent Patents in Dendrimers for Nanomedicine: Evolution 2014. <i>Recent Patents on Nanomedicine</i> , 2014 , 4, 25-31 | | 6 |
| 58 | Mobility of Chromophores Absorbing Light in the 320-420 nm Range in Transparent and Cataract Lens Tissue. <i>Journal of Applied Spectroscopy</i> , 2014 , 81, 820-826 | 0.7 | |
| 57 | The effects of magnesium, acetylsalicylic acid, and emoxypine on platelet aggregation. <i>Biophysics (Russian Federation)</i> , 2014 , 59, 900-903 | 0.7 | 1 |
| 56 | How to study dendrimers and dendriplexes III. Biodistribution, pharmacokinetics and toxicity in vivo. <i>Journal of Controlled Release</i> , 2014 , 181, 40-52 | 11.7 | 75 |
| 55 | Doxycycline-regulated GDNF expression promotes axonal regeneration and functional recovery in transected peripheral nerve. <i>Journal of Controlled Release</i> , 2013 , 172, 841-51 | 11.7 | 48 |
| 54 | Nanomaterials in stroke treatment: perspectives. <i>Stroke</i> , 2013 , 44, 2351-5 | 6.7 | 33 |
| 53 | Contribution of hydrophobicity, DNA and proteins to the cytotoxicity of cationic PAMAM dendrimers. <i>International Journal of Pharmaceutics</i> , 2013 , 454, 1-3 | 6.5 | 17 |
| 52 | Acidosis, magnesium and acetylsalicylic acid: effects on thrombin. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2013 , 104, 158-64 | 4.4 | 7 |

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| 51 | Novel β -CVC-carbosilane dendrimers as carriers for anti-HIV nucleic acids: studies on complexation and interaction with blood cells. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013 , 109, 183-9 | 6 | 35 |
| 50 | Cationic Carbosilane Dendrimers as Non-viral Vectors of Nucleic Acids (Oligonucleotide or siRNA) for Gene Therapy Purposes 2013 , 40-55 | | 2 |
| 49 | Poly(amidoamine) dendrimer complexes as a platform for gene delivery. <i>Expert Opinion on Drug Delivery</i> , 2013 , 10, 1687-98 | 8 | 89 |
| 48 | Non-virally modified human mesenchymal stem cells produce ciliary neurotrophic factor in biodegradable fibrin-based 3D scaffolds. <i>Journal of Pharmaceutical Sciences</i> , 2012 , 101, 1546-54 | 3.9 | 15 |
| 47 | Dendrimer-driven neurotrophin expression differs in temporal patterns between rodent and human stem cells. <i>Molecular Pharmaceutics</i> , 2012 , 9, 1521-8 | 5.6 | 18 |
| 46 | Impact of maltose modified poly(propylene imine) dendrimers on liver alcohol dehydrogenase (LADH) internal dynamics and structure. <i>New Journal of Chemistry</i> , 2012 , 36, 1992 | 3.6 | 8 |
| 45 | Stability of dendriplexes formed by anti-HIV genetic material and poly(propylene imine) dendrimers in the presence of glucosaminoglycans. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 14525-32 | 3.4 | 10 |
| 44 | Influence of fourth generation poly(propyleneimine) dendrimers on blood cells. <i>Journal of Biomedical Materials Research - Part A</i> , 2012 , 100, 2870-80 | 5.4 | 51 |
| 43 | Carbosilane dendrimers are a non-viral delivery system for antisense oligonucleotides: characterization of dendriplexes. <i>Journal of Biomedical Nanotechnology</i> , 2012 , 8, 57-73 | 4 | 32 |
| 42 | Non-viral engineering of skin precursor-derived Schwann cells for enhanced NT-3 production in adherent and microcarrier culture. <i>Current Medicinal Chemistry</i> , 2012 , 19, 5572-9 | 4.3 | 22 |
| 41 | Dendrimers in Anti-HIV Therapy 2011 , | | 2 |
| 40 | Neurons and stromal stem cells as targets for polycation-mediated transfection. <i>Bulletin of Experimental Biology and Medicine</i> , 2011 , 151, 126-9 | 0.8 | 18 |
| 39 | Carbosilane dendrimers NN8 and NN16 form a stable complex with siGAG1. <i>Colloids and Surfaces B: Biointerfaces</i> , 2011 , 83, 388-91 | 6 | 31 |
| 38 | Fourth generation phosphorus-containing dendrimers: prospective drug and gene delivery carrier. <i>Pharmaceutics</i> , 2011 , 3, 458-73 | 6.4 | 42 |
| 37 | Use of polyamidoamine dendrimers to engineer BDNF-producing human mesenchymal stem cells. <i>Molecular Biology Reports</i> , 2010 , 37, 2003-8 | 2.8 | 28 |
| 36 | How to study dendriplexes II: Transfection and cytotoxicity. <i>Journal of Controlled Release</i> , 2010 , 141, 110-27 | 11.7 | 64 |
| 35 | Transfection efficiencies of PAMAM dendrimers correlate inversely with their hydrophobicity. <i>International Journal of Pharmaceutics</i> , 2010 , 383, 228-35 | 6.5 | 59 |
| 34 | How to study dendriplexes I: Characterization. <i>Journal of Controlled Release</i> , 2009 , 135, 186-97 | 11.7 | 74 |

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| 33 | The interaction between PAMAM G3.5 dendrimer, Cd ²⁺ , dendrimer-Cd ²⁺ complexes and human serum albumin. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009 , 69, 95-8 | 6 | 16 |
| 32 | Binding properties of water-soluble carbosilane dendrimers. <i>Journal of Fluorescence</i> , 2009 , 19, 267-75 | 2.4 | 19 |
| 31 | Dendrimers in gene transfection. <i>Biochemistry (Moscow)</i> , 2009 , 74, 1070-9 | 2.9 | 44 |
| 30 | Effect of acetylsalicylic acid on the current-voltage characteristics of planar lipid membranes. <i>Biophysical Chemistry</i> , 2009 , 142, 27-33 | 3.5 | 5 |
| 29 | Characterization of carbosilane dendrimers as effective carriers of siRNA to HIV-infected lymphocytes. <i>Journal of Controlled Release</i> , 2008 , 132, 55-64 | 11.7 | 141 |
| 28 | Impact of PAMAM G2 and G6 dendrimers on bovine serum albumin (fatty acids free and loaded with different fatty acids). <i>Colloids and Surfaces B: Biointerfaces</i> , 2008 , 63, 27-33 | 6 | 21 |
| 27 | Binding properties of polyamidoamine dendrimers. <i>Journal of Applied Polymer Science</i> , 2007 , 103, 2036-2040 | 2.9 | 20 |
| 26 | Interaction between PAMAM 4.5 dendrimer, cadmium and bovine serum albumin: a study using equilibrium dialysis, isothermal titration calorimetry, zeta-potential and fluorescence. <i>Colloids and Surfaces B: Biointerfaces</i> , 2007 , 58, 286-9 | 6 | 25 |
| 25 | Serum albumins have five sites for binding of cationic dendrimers. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2007 , 1774, 946-51 | 4 | 65 |
| 24 | Does fluorescence of ANS reflect its binding to PAMAM dendrimer?. <i>Bioorganic Chemistry</i> , 2007 , 35, 170-4 | 3.1 | 28 |
| 23 | Analysis of interaction between dendriplexes and bovine serum albumin. <i>Biomacromolecules</i> , 2007 , 8, 2059-62 | 6.9 | 44 |
| 22 | Water-soluble carbosilane dendrimers protect phosphorothioate oligonucleotides from binding to serum proteins. <i>Organic and Biomolecular Chemistry</i> , 2007 , 5, 1886-93 | 3.9 | 52 |
| 21 | The interaction between polycationic poly-lysine dendrimers and charged and neutral fluorescent probes. <i>Journal of Fluorescence</i> , 2007 , 17, 73-9 | 2.4 | 5 |
| 20 | Complex formation between endogenous toxin bilirubin and polyamidoamine dendrimers: a spectroscopic study. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2006 , 1760, 1021-6 | 4 | 7 |
| 19 | Dendrimer-protein interactions studied by tryptophan room temperature phosphorescence. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2006 , 1764, 1750-6 | 4 | 34 |
| 18 | Cytotoxicity, haematotoxicity and genotoxicity of high molecular mass arborescent polyoxyethylene polymers with polyglycidol-block-containing shells. <i>Cell Biology International</i> , 2006 , 30, 248-52 | 4.5 | 28 |
| 17 | Biological properties of low molecular mass peptide dendrimers. <i>International Journal of Pharmaceutics</i> , 2006 , 309, 208-17 | 6.5 | 57 |
| 16 | Effect of dendrimers on pure acetylcholinesterase activity and structure. <i>Bioelectrochemistry</i> , 2006 , 68, 56-9 | 5.6 | 41 |

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| 15 | The breakdown of bilayer lipid membranes by dendrimers. <i>Cellular and Molecular Biology Letters</i> , 2006 , 11, 242-8 | 8.1 | 28 |
| 14 | The effect of PAMAM dendrimers on human and bovine serum albumin at different pH and NaCl concentrations. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2005 , 16, 1081-93 | 3.5 | 33 |
| 13 | Dendrimer interactions with hydrophobic fluorescent probes and human serum albumin. <i>Journal of Fluorescence</i> , 2005 , 15, 21-8 | 2.4 | 61 |
| 12 | Recombination Prolonged Luminescence of Indole and Tryptophan in a Solution at Room Temperature. <i>Journal of Applied Spectroscopy</i> , 2003 , 70, 270-275 | 0.7 | 1 |
| 11 | Room Temperature Phosphorescence of the Membrane Proteins of Human Erythrocytes. <i>Journal of Applied Spectroscopy</i> , 2003 , 70, 385-390 | 0.7 | 1 |
| 10 | Estimation of PAMAM Dendrimers Binding Capacity by Fluorescent Probe ANS. <i>Journal of Fluorescence</i> , 2003 , 13, 519-524 | 2.4 | 28 |
| 9 | Slow internal dynamics of membrane proteins in mechanisms of protease-induced aggregation of platelets. <i>Cell Biology International</i> , 2003 , 27, 571-8 | 4.5 | 3 |
| 8 | Phosphorescence of Tryptophan Residues of Proteins at Room Temperature. <i>Journal of Applied Spectroscopy</i> , 2002 , 69, 213-219 | 0.7 | 3 |
| 7 | The effect of oxidative stress induced by t-butyl hydroperoxide on the structural dynamics of membrane proteins of Chinese hamster fibroblasts. <i>Cell Biology International</i> , 1999 , 23, 345-50 | 4.5 | 7 |
| 6 | Phosphorescent Analysis of Lipid Peroxidation Products in vitro and in situ 1999 , 349-350 | | 1 |
| 5 | Room Temperature Tryptophan Phosphorescence as monitor of internal dynamics of isolated human erythrocyte membranes proteins 1999 , 21-22 | | 0 |
| 4 | Tryptophan phosphorescence as a monitor of flexibility of membrane proteins in cells 1997 , | | 2 |
| 3 | First protein affinity application of Cu ²⁺ -bound pure inorganic nanoflowers. <i>Polymer Bulletin</i> ,1 | 2.4 | 1 |
| 2 | Differences between Cu- and Fe ²⁺ nanoflowers in their interactions with fluorescent probes ANS and Fura-2 and proteins albumin and thrombin. <i>Polymer Bulletin</i> ,1 | 2.4 | |
| 1 | Engineered phosphorus dendrimers as powerful non-viral nanoplatforms for gene delivery: a great hope for the future of cancer therapeutics. <i>Exploration of Targeted Anti-tumor Therapy</i> ,50-61 | 2.5 | 0 |