# Radostin Danev

## List of Publications by Year in descending order



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|---|---|---|---|
| 90 papers | 6,207 citations | 81900 39 h-index | 79698 73 g-index |
| 105 all docs | 105 docs citations | 105 times ranked | 5989 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Visualizing the molecular sociology at the HeLa cell nuclear periphery. Science, 2016, 351, 969-972. | 12.6 | 493 |
| 2 | Volta potential phase plate for in-focus phase contrast transmission electron microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15635-15640. | 7.1 | 448 |
| 3 | Phase-plate cryo-EM structure of a class B GPCRâ€“G-protein complex. Nature, 2017, 546, 118-123. | 27.8 | 424 |
| 4 | A molecular census of 26 S proteasomes in intact neurons. Science, 2015, 347, 439-442. | 12.6 | 287 |
| 5 | Structure of the adenosine-bound human adenosine A1 receptorâ€“Gi complex. Nature, 2018, 558, 559-563. | 27.8 | 274 |
| 6 | Phase-plate cryo-EM structure of a biased agonist-bound human GLP-1 receptorâ€“Gs complex. Nature, 2018, 555, 121-125. | 27.8 | 263 |
| 7 | Transmission electron microscopy with Zernike phase plate. Ultramicroscopy, 2001, 88, 243-252. | 1.9 | 260 |
| 8 | Cryo-EM structure of haemoglobin at 3.2 Ã... determined with the Volta phase plate. Nature Communications, 2017, 8, 16099. | 12.8 | 211 |
| 9 | Systemic delivery of siRNA to tumors using a lipid nanoparticle containing a tumor-specific cleavable PEG-lipid. Biomaterials, 2011, 32, 4306-4316. | 11.4 | 193 |
| 10 | Cryo-Electron Microscopy Methodology: Current Aspects and Future Directions. Trends in Biochemical Sciences, 2019, 44, 837-848. | 7.5 | 176 |
| 11 | Cryo-EM single particle analysis with the Volta phase plate. ELife, 2016, 5, . | 6.0 | 141 |
| 12 | Electron cryotomography of vitrified cells with a Volta phase plate. Journal of Structural Biology, 2015, 190, 143-154. | 2.8 | 140 |
| 13 | Multi-layered nanoparticles for penetrating the endosome and nuclear membrane via a step-wise membrane fusion process. Biomaterials, 2009, 30, 2940-2949. | 11.4 | 133 |
| 14 | Activation of the GLP-1 receptor by a non-peptidic agonist. Nature, 2020, 577, 432-436. | 27.8 | 119 |
| 15 | Zernike Phase Contrast Cryo-Electron Microscopy and Tomography for Structure Determination at Nanometer and Subnanometer Resolutions. Structure, 2010, 18, 903-912. | 3.3 | 118 |
| 16 | Practical factors affecting the performance of a thin-film phase plate for transmission electron microscopy. Ultramicroscopy, 2009, 109, 312-325. | 1.9 | 116 |
| 17 | An artificial virus-like nano carrier system: enhanced endosomal escape of nanoparticles via synergistic action of pH-sensitive fusogenic peptide derivatives. Analytical and Bioanalytical Chemistry, 2008, 391, 2717-2727. | 3.7 | 111 |
| 18 | Differential GLP-1R Binding and Activation by Peptide and Non-peptide Agonists. Molecular Cell, 2020, 80, 485-500.e7. | 9.7 | 111 |

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|---|---|---|---|
| 19 | Using the Volta phase plate with defocus for cryo-EM single particle analysis. ELife, 2017, 6, . | 6.0 | 109 |
| 20 | Single particle analysis based on Zernike phase contrast transmission electron microscopy. Journal of Structural Biology, 2008, 161, 211-218. | 2.8 | 96 |
| 21 | Toward a Structural Understanding of Class B GPCR Peptide Binding and Activation. Molecular Cell, 2020, 77, 656-668.e5. | 9.7 | 92 |
| 22 | Expanding the boundaries of cryo-EM with phase plates. Current Opinion in Structural Biology, 2017, 46, 87-94. | 5.7 | 87 |
| 23 | Positive allosteric mechanisms of adenosine A1 receptor-mediated analgesia. Nature, 2021, 597, 571-576. | 27.8 | 84 |
| 24 | A 3.5-nm Structure of Rat TRPV4 Cation Channel Revealed by Zernike Phase-contrast Cryoelectron Microscopy. Journal of Biological Chemistry, 2010, 285, 11210-11218. | 3.4 | 78 |
| 25 | 3.9 Ã... structure of the nucleosome core particle determined by phase-plate cryo-EM. Nucleic Acids Research, 2016, 44, 8013-8019. | 14.5 | 78 |
| 26 | Intact Carboxysomes in a Cyanobacterial Cell Visualized by Hilbert Differential Contrast Transmission Electron Microscopy. Journal of Bacteriology, 2006, 188, 805-808. | 2.2 | 74 |
| 27 | Subtomogram analysis using the Volta phase plate. Journal of Structural Biology, 2017, 197, 94-101. | 2.8 | 71 |
| 28 | Structure and Dynamics of Adrenomedullin Receptors AM<sub>1</sub> and AM<sub>2</sub> Reveal Key Mechanisms in the Control of Receptor Phenotype by Receptor Activity-Modifying Proteins. ACS Pharmacology and Translational Science, 2020, 3, 263-284. | 4.9 | 71 |
| 29 | Improved applicability and robustness of fast cryo-electron tomography data acquisition. Journal of Structural Biology, 2019, 208, 107-114. | 2.8 | 70 |
| 30 | Cryo-EM structures of the archaeal PAN-proteasome reveal an around-the-ring ATPase cycle. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 534-539. | 7.1 | 65 |
| 31 | Volta phase plate cryo-EM of the small protein complex Prx3. Nature Communications, 2016, 7, 10534. | 12.8 | 64 |
| 32 | Structure and dynamics of the CGRP receptor in apo and peptide-bound forms. Science, 2021, 372, . | 12.6 | 57 |
| 33 | In vivo subcellular ultrastructures recognized with Hilbert differential contrast transmission electron microscopy. Journal of Electron Microscopy, 2005, 54, 79-84. | 0.9 | 54 |
| 34 | Morphologies of synaptic protein membrane fusion interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9110-9115. | 7.1 | 51 |
| 35 | Phase Plates for Transmission Electron Microscopy. Methods in Enzymology, 2010, 481, 343-369. | 1.0 | 49 |
| 36 | Optimizing the phase shift and the cut-on periodicity of phase plates for TEM. Ultramicroscopy, 2011, 111, 1305-1315. | 1.9 | 48 |

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|---|---|---|---|
| 37 | Growth Process and Molecular Packing of a Self-assembled Lipid Nanotube:â€‰ Phase-Contrast Transmission Electron Microscopy and XRD Analyses. Langmuir, 2008, 24, 709-713. | 3.5 | 47 |
| 38 | Structure and dynamics of the active Gs-coupled human secretin receptor. Nature Communications, 2020, 11, 4137. | 12.8 | 46 |
| 39 | Complex Observation in Electron Microscopy: IV. Reconstruction of Complex Object Wave from Conventional and Half Plane Phase Plate Image Pair. Journal of the Physical Society of Japan, 2004, 73, 2718-2724. | 1.6 | 42 |
| 40 | Envelope-type lipid nanoparticles incorporating a short PEG-lipid conjugate for improved control of intracellular trafficking and transgene transcription. Biomaterials, 2009, 30, 4806-4814. | 11.4 | 41 |
| 41 | Structures of the human cholecystokinin 1 (CCK1) receptor bound to Gs and Gq mimetic proteins provide insight into mechanisms of G protein selectivity. PLoS Biology, 2021, 19, e3001295. | 5.6 | 41 |
| 42 | Routine sub-2.5â€‰Ã... cryo-EM structure determination of GPCRs. Nature Communications, 2021, 12, 4333. | 12.8 | 37 |
| 43 | Complex Observation in Electron Microscopy. II. Direct Visualization of Phases and Amplitudes of Exit Wave Functions. Journal of the Physical Society of Japan, 2001, 70, 696-702. | 1.6 | 36 |
| 44 | Application of Phase Contrast Transmission Microscopic Methods to Polymer Materials. Macromolecules, 2005, 38, 7884-7886. | 4.8 | 35 |
| 45 | Transition from Nanotubes to Micelles with Increasing Concentration in Dilute Aqueous Solution of PotassiumN-Acyl Phenylalaninate. Langmuir, 2006, 22, 8472-8477. | 3.5 | 32 |
| 46 | Cryo-electron microscopy structure of the glucagon receptor with a dual-agonist peptide. Journal of Biological Chemistry, 2020, 295, 9313-9325. | 3.4 | 31 |
| 47 | Dynamics of GLP-1R peptide agonist engagement are correlated with kinetics of G protein activation. Nature Communications, 2022, 13, 92. | 12.8 | 30 |
| 48 | Evolving cryo-EM structural approaches for GPCR drug discovery. Structure, 2021, 29, 963-974.e6. | 3.3 | 29 |
| 49 | Phase-plate electron microscopy: a novel imaging tool to reveal close-to-life nano-structures. Biophysical Reviews, 2009, 1, 37-42. | 3.2 | 28 |
| 50 | A structural basis for amylin receptor phenotype. Science, 2022, 375, eabm9609. | 12.6 | 28 |
| 51 | Phase-plate cryo-EM structure of the Widom 601 CENP-A nucleosome core particle reveals differential flexibility of the DNA ends. Nucleic Acids Research, 2020, 48, 5735-5748. | 14.5 | 27 |
| 52 | Structure and dynamics of semaglutide- and taspoglutide-bound GLP-1R-Gs complexes. Cell Reports, 2021, 36, 109374. | 6.4 | 27 |
| 53 | Decaarginine-PEG-Artificial Lipid/DNA Complex for Gene Delivery: Nanostructure and Transfection Efficiency. Journal of Nanoscience and Nanotechnology, 2008, 8, 2308-2315. | 0.9 | 25 |
| 54 | Electric charging of thin films measured using the contrast transfer function. Ultramicroscopy, 2001, 87, 45-54. | 1.9 | 24 |

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|---|---|---|---|
| 55 | Volta phase plate data collection facilitates image processing and cryo-EM structure determination. Journal of Structural Biology, 2018, 202, 191-199. | 2.8 | 24 |
| 56 | Structural and functional diversity among agonist-bound states of the GLP-1 receptor. Nature Chemical Biology, 2022, 18, 256-263. | 8.0 | 24 |
| 57 | Non-acid-fastness in Mycobacterium tuberculosis Î”kasB mutant correlates with the cell envelope electron density. Tuberculosis, 2012, 92, 351-357. | 1.9 | 22 |
| 58 | Revisiting the Structure of Hemoglobin and Myoglobin with Cryo-Electron Microscopy. Journal of Molecular Biology, 2017, 429, 2611-2618. | 4.2 | 22 |
| 59 | Spectral DQE of the Volta phase plate. Ultramicroscopy, 2020, 218, 113079. | 1.9 | 21 |
| 60 | Minimizing electrostatic charging of an aperture used to produce in-focus phase contrast in the TEM. Ultramicroscopy, 2013, 135, 6-15. | 1.9 | 18 |
| 61 | Immunolocalization of multiple membrane proteins on a carbon replica with STEM and EDX. Ultramicroscopy, 2010, 110, 366-374. | 1.9 | 17 |
| 62 | Cryo-EM performance testing of hardware and data acquisition strategies. Microscopy (Oxford,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4 | 1.5 | 17 |
| 63 | Cryo-EM structure of the dual incretin receptor agonist, peptide-19, in complex with the glucagon-like peptide-1 receptor. Biochemical and Biophysical Research Communications, 2021, 578, 84-90. | 2.1 | 14 |
| 64 | Self-assembly of nano-sized arrays on highly oriented thin films of poly(tetrafluoroethylene). Polymer, 2006, 47, 951-955. | 3.8 | 11 |
| 65 | Effect of fringe-artifact correction on sub-tomogram averaging from Zernike phase-plate cryo-TEM. Journal of Structural Biology, 2015, 191, 299-305. | 2.8 | 10 |
| 66 | Fast and accurate defocus modulation for improved tunability of cryo-EM experiments. IUCrJ, 2020, 7, 566-574. | 2.2 | 6 |
| 67 | Automated Cryo-tomography and Single Particle Analysis with a New Type of Phase Plate. Microscopy and Microanalysis, 2014, 20, 206-207. | 0.4 | 5 |
| 68 | High-contrast imaging of plastic-embedded tissues by phase contrast electron microscopy. Journal of Electron Microscopy, 2009, 58, 35-45. | 0.9 | 3 |
| 69 | Combination of Different Techniques in Cryo-Electron Tomography with a Volta Phase Plate. Microscopy and Microanalysis, 2015, 21, 1393-1394. | 0.4 | 3 |
| 70 | Strain-Induced Crystallization of Fractionated Natural Rubber from Fresh Latex. Zairyo/Journal of the Society of Materials Science, Japan, 2009, 58, 5-10. | 0.2 | 2 |
| 71 | Challenges in Phase Plate Product Development. Microscopy and Microanalysis, 2014, 20, 218-219. | 0.4 | 2 |
| 72 | Artifact Correction for Zernike Phase-Plate Cryo-Electron Tomography. Microscopy and Microanalysis, 2014, 20, 234-235. | 0.4 | 2 |

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| 73 | Solution Conformations of Peroxiredoxins Visualised by Volta Phase Plates. Microscopy and Microanalysis, 2016, 22, 70-71. | 0.4 | 2 |
| 74 | Phase Contrast Cryo-Electron Tomography and Single Particle Analysis with a New Phase Plate. Microscopy and Microanalysis, 2014, 20, 232-233. | 0.4 | 1 |
| 75 | Practical Aspects and Usage Tips for the Volta Phase Plate. Microscopy and Microanalysis, 2015, 21, 1391-1392. | 0.4 | 1 |
| 76 | In situ studies of cellular architecture by Electron Cryo-Tomography with Volta Phase Plate. Microscopy and Microanalysis, 2015, 21, 1835-1836. | 0.4 | 1 |
| 77 | Optimizing the FEI Volta Phase Plate for Efficient and Artefact-free Data Acquisition. Microscopy and Microanalysis, 2016, 22, 58-59. | 0.4 | 1 |
| 78 | Single Particle Analysis with the Volta Phase Plate. Microscopy and Microanalysis, 2016, 22, 82-83. | 0.4 | 1 |
| 79 | Biological Sciences Tutorial: CryoEM with Phase Plates. Microscopy and Microanalysis, 2017, 23, 1398-1399. | 0.4 | 1 |
| 80 | Exploring Cellular Morphology of Thermoplasma acidophilum by Cryo-Electron Tomography with Volta Phase Plate. Microscopy and Microanalysis, 2017, 23, 1234-1235. | 0.4 | 1 |
| 81 | Towards High Resolution in Cryo-Electron Tomography Subtomogram Analysis. Microscopy and Microanalysis, 2017, 23, 812-813. | 0.4 | 1 |
| 82 | Electrons see the light. Nature Methods, 2019, 16, 966-967. | 19.0 | 1 |
| 83 | Single Particle Imaging with the Volta Phase Plate. Microscopy and Microanalysis, 2019, 25, 7-8. | 0.4 | 1 |
| 84 | 1S-B2-1Single Particle Analysis Applications of the Volta Phase Plate. Microscopy (Oxford, England), 2017, 66, i9-i9. | 1.5 | 1 |
| 85 | Electrons receive individual treatment with electron-event representation. IUCrJ, 2020, 7, 780-781. | 2.2 | 1 |
| 86 | Theory of asymmetrical phase plates and its application to TEM. Seibutsu Butsuri, 2003, 43, S117. | 0.1 | 0 |
| 87 | Phase-Contrast Cryo-Electron Tomography of Primary Cultured Neuronal Cells. Microscopy and Microanalysis, 2014, 20, 208-209. | 0.4 | 0 |
| 88 | High-resolution Imaging of Reconstituted Protein-DNA Complexes Using Phase Plate Electron Cryo Microscopy. Microscopy and Microanalysis, 2016, 22, 68-69. | 0.4 | 0 |
| 89 | Charting Molecular Landscapes Using Cryo-Electron Tomography. Microscopy Today, 2017, 25, 26-31. | 0.3 | 0 |
| 90 | Phase Contrast Single Particle Analysis at Atomic Resolutions. Microscopy and Microanalysis, 2017, 23, 816-817. | 0.4 | 0 |