

Aleksander Rebane

List of Publications by Year in descending order

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66
papers

3,835
citations

186265

28
h-index

175258

52
g-index

67
all docs

67
docs citations

67
times ranked

4580
citing authors

#	ARTICLE	IF	CITATIONS
1	Two-photon absorption standards in the 550-1600 nm excitation wavelength range. <i>Optics Express</i> , 2008, 16, 4029.	3.4	805
2	Two-photon absorption properties of fluorescent proteins. <i>Nature Methods</i> , 2011, 8, 393-399.	19.0	589
3	Blood-vessel closure using photosensitizers engineered for two-photon excitation. <i>Nature Photonics</i> , 2008, 2, 420-424.	31.4	355
4	Platinum Acetylide Two-Photon Chromophores. <i>Inorganic Chemistry</i> , 2007, 46, 6483-6494.	4.0	161
5	Enhancement of two-photon absorption in tetrapyrrolic compounds. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 321.	2.1	135
6	Dramatic enhancement of intrinsic two-photon absorption in a conjugated porphyrin dimer. Electronic supplementary information (ESI) available: Experimental procedures. See http://www.rsc.org/suppdata/cp/b3/b313399k/ . <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 7.	2.8	106
7	Drastic enhancement of two-photon absorption in porphyrins associated with symmetrical electron-accepting substitution. <i>Chemical Physics Letters</i> , 2002, 361, 504-512.	2.6	100
8	Pyrrolo[3,2- <i>b</i>]pyrroles: From Unprecedented Solvatochromism to Two-Photon Absorption. <i>Chemistry - A European Journal</i> , 2015, 21, 18364-18374.	3.3	93
9	High-accuracy reference standards for two-photon absorption in the 680-1050 nm wavelength range. <i>Optics Express</i> , 2016, 24, 9053.	3.4	89
10	Phenylene Vinylene Platinum(II) Acetylides with Prodigious Two-Photon Absorption. <i>Journal of the American Chemical Society</i> , 2012, 134, 19346-19349.	13.7	85
11	Efficient singlet oxygen generation upon two-photon excitation of new porphyrin with enhanced nonlinear absorption. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2001, 7, 971-975.	2.9	84
12	Color Hues in Red Fluorescent Proteins Are Due to Internal Quadratic Stark Effect. <i>Journal of Physical Chemistry B</i> , 2009, 113, 12860-12864.	2.6	78
13	A long Stokes shift red fluorescent Ca ²⁺ indicator protein for two-photon and ratiometric imaging. <i>Nature Communications</i> , 2014, 5, 5262.	12.8	75
14	Symmetry Breaking in Platinum Acetylide Chromophores Studied by Femtosecond Two-Photon Absorption Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2014, 118, 3749-3759.	2.5	71
15	Engineering conjugation in para-phenylene-bridged porphyrin tapes. <i>Chemical Science</i> , 2012, 3, 1541.	7.4	67
16	Describing Two-Photon Absorptivity of Fluorescent Proteins with a New Vibronic Coupling Mechanism. <i>Journal of Physical Chemistry B</i> , 2012, 116, 1736-1744.	2.6	59
17	Green Fluorescent Protein with Anionic Tryptophan-Based Chromophore and Long Fluorescence Lifetime. <i>Biophysical Journal</i> , 2015, 109, 380-389.	0.5	56
18	Slow light with persistent hole burning. <i>Physical Review A</i> , 2005, 71, .	2.5	54

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19	Relation between Two-Photon Absorption and Dipolar Properties in a Series of Fluorenyl-Based Chromophores with Electron Donating or Electron Withdrawing Substituents. <i>Journal of Physical Chemistry A</i> , 2011, 115, 4255-4262.	2.5	53
20	Two-photon sensitive protecting groups operating via intramolecular electron transfer: uncaging of GABA and tryptophan. <i>Chemical Science</i> , 2015, 6, 2419-2426.	7.4	48
21	Symmetry Breaking in Pyrrolo[3,2- <i>b</i>]pyrroles: Synthesis, Solvatochromism and Two-Photon Absorption. <i>Chemistry - an Asian Journal</i> , 2017, 12, 1736-1748.	3.3	48
22	Synthesis and linear and nonlinear optical properties of low-melting π -extended porphyrins. <i>Journal of Materials Chemistry C</i> , 2013, 1, 2044.	5.5	47
23	Quantitative Prediction of Two-Photon Absorption Cross Section Based on Linear Spectroscopic Properties. <i>Journal of Physical Chemistry C</i> , 2008, 112, 7997-8004.	3.1	45
24	Optimizing Simultaneous Two-Photon Absorption and Transient Triplet-Triplet Absorption in Platinum Acetylide Chromophores. <i>Journal of Physical Chemistry A</i> , 2010, 114, 7003-7013.	2.5	44
25	Long- and Short-Range Electrostatic Fields in GFP Mutants: Implications for Spectral Tuning. <i>Scientific Reports</i> , 2015, 5, 13223.	3.3	42
26	Polymer Monoliths Containing Two-Photon Absorbing Phenylenevinylene Platinum(II) Acetylide Chromophores for Optical Power Limiting. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 10795-10805.	8.0	35
27	Two-Photon Spectroscopy of a Series of Platinum Acetylides: Conformation-Induced Ground-State Symmetry Breaking. <i>Journal of Physical Chemistry A</i> , 2017, 121, 5442-5449.	2.5	29
28	Two-photon absorption properties of meso-substituted A3-corroles. <i>Chemical Physics Letters</i> , 2008, 462, 246-250.	2.6	28
29	Two-photon absorption in butadiyne-linked porphyrin dimers: torsional and substituent effects. <i>Journal of Materials Chemistry C</i> , 2014, 2, 6802-6809.	5.5	28
30	Amplified Two-Photon Absorption in <i>Trans</i> - $A_{22}B_{22}$ -Porphyrins Bearing Nitrophenylethynyl Substituents. <i>ChemPhysChem</i> , 2012, 13, 3966-3972.	2.1	26
31	Multiphoton Photochemistry of Red Fluorescent Proteins in Solution and Live Cells. <i>Journal of Physical Chemistry B</i> , 2014, 118, 9167-9179.	2.6	26
32	Two-Photon Voltmeter for Measuring a Molecular Electric Field. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 7582-7586.	13.8	25
33	Two-photon directed evolution of green fluorescent proteins. <i>Scientific Reports</i> , 2015, 5, 11968.	3.3	24
34	Cooperative Enhancement of Two-Photon Absorption in Self-Assembled Zinc-Porphyrin Nanostructures. <i>Journal of Physical Chemistry C</i> , 2016, 120, 11663-11670.	3.1	23
35	Spontaneous Symmetry Breaking Facilitates Metal-to-Ligand Charge Transfer: A Quantitative Two-Photon Absorption Study of Ferrocene-phenyleneethynylene Oligomers. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 1893-1899.	4.6	20
36	Ground- and Excited-State Symmetry Breaking and Solvatochromism in Centrosymmetric Pyrrolo[3,2- <i>b</i>]pyrroles Possessing two Nitro Groups. <i>ChemPhotoChem</i> , 2020, 4, 508-519.	3.0	20

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37	Femtosecond noncollinear and collinear parametric generation and amplification in BBO crystal. <i>Applied Physics B: Lasers and Optics</i> , 2000, 70, 163-168.	2.2	19
38	Two-photon absorption spectra of fluorescent isomorphous DNA base analogs. <i>Biomedical Optics Express</i> , 2018, 9, 447.	2.9	19
39	Live-cell multiphoton fluorescence correlation spectroscopy with an improved large Stokes shift fluorescent protein. <i>Molecular Biology of the Cell</i> , 2015, 26, 2054-2066.	2.1	18
40	New all-optical method for measuring molecular permanent dipole moment difference using two-photon absorption spectroscopy. <i>Journal of Luminescence</i> , 2010, 130, 1619-1623.	3.1	17
41	Two-photon excited coherence gratings in inhomogeneously broadened organic solid. <i>Journal of Modern Optics</i> , 2002, 49, 379-390.	1.3	13
42	Unconventional Conjugation via vinylMeSi(O [~]) ₂ Siloxane Bridges May Imbue Semiconducting Properties in [vinyl(Me)SiO(PhSiO _{1.5}) ₈ OSi(Me)vinyl-Ar] Double-Decker Copolymers. <i>ACS Applied Polymer Materials</i> , 2020, 2, 3894-3907.	4.4	13
43	Femtosecond resonance enhanced CARS for background-free detection of organic molecules. <i>Journal of Modern Optics</i> , 2005, 52, 1243-1253.	1.3	10
44	TD-DFT calculations of one- and two-photon absorption in Coumarin C153 and Prodan: attuning theory to experiment. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 28824-28833.	2.8	10
45	Stereochemical Effects on Platinum Acetylide Two-Photon Chromophores. <i>Journal of Physical Chemistry A</i> , 2019, 123, 9382-9393.	2.5	9
46	Solute-solvent electronic interaction is responsible for initial charge separation in ruthenium complexes [Ru(bpy) ₃] ²⁺ and [Ru(phen) ₃] ²⁺ . <i>Communications Chemistry</i> , 2019, 2, .	4.5	9
47	Direct Synthesis of 2,5-Bis(dodecanoxy)phenyleneethynylene-Butadiynes by Sonogashira Coupling Reaction. <i>European Journal of Organic Chemistry</i> , 2013, 2013, 5341-5352.	2.4	6
48	Optimizing ultrafast illumination for multiphoton-excited fluorescence imaging. <i>Biomedical Optics Express</i> , 2016, 7, 1768.	2.9	6
49	All-Optical Sensing of the Components of the Internal Local Electric Field in Proteins. <i>IEEE Photonics Journal</i> , 2012, 4, 1996-2001.	2.0	5
50	High contrast two-photon imaging of fingermarks. <i>Scientific Reports</i> , 2016, 6, 24142.	3.3	2
51	Change of electric dipole moment in charge transfer transitions of ferrocene oligomers studied by ultrafast two-photon absorption. , 2017, , .		1
52	Novel pH-responsive highly fluorescent lipophilic coumarins as efficient two-photon sensors of acidic and basic environments. , 2021, , .		1
53	Photophysical and Electrochemical Properties of Push-Pull Oligo(ferrocenyl-phenyleneethynylene)s: Supramolecular Orders in Molecular Films. <i>Langmuir</i> , 2022, 38, 4077-4089.	3.5	1
54	Broadband Femtosecond Stimulated Raman Scattering in H ₂ /D ₂ , H ₂ /HD and H ₂ /CH ₄ Gas Mixtures. , 0, , .		0

#	ARTICLE	IF	CITATIONS
55	Nondestructive readout and transient erasure of photon-gated hole-burning holograms. , 1998, , .		0
56	Recording of ultrafast image holograms by photo-induced frequency-doubling in glass. , 0, , .		0
57	Femtosecond and picosecond stimulated Raman scattering in gas mixtures. , 0, , .		0
58	Photon-gated holographic hole burning and readout in Si-naphthalocyanine-doped polymer film. , 2000, , .		0
59	Single-shot recording of ultrafast time-space holograms. , 2000, , .		0
60	New dendrimer molecules with a record high intrinsic two-photon absorption cross-section. , 2001, , .		0
61	Efficient singlet oxygen photosensitization upon two-photon excitation of porphyrins. , 0, , .		0
62	Phonon-induced phase shift of spectral gratings created upon two-photon excitation in inhomogeneously broadened organic system. , 0, , .		0
63	Very efficient multi-photon absorption in porphyrins with extended /spl pi/-conjugation. , 2003, , .		0
64	Observation of quantum interference in an organic solid. , 0, , .		0
65	Multiphoton spectroscopy: An optical window into molecular electrostatics. EPJ Web of Conferences, 2018, 190, 02009.	0.3	0
66	Novel Lipophilic Fluorophores with Highly Acidityâ€Dependent Twoâ€Photon Response. Chemistry - A European Journal, 2022, 28, .	3.3	0