

Alexander Samokhvalov

List of Publications by Year in descending order

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47
papers

1,317
citations

361413

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345221

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docs citations

48
times ranked

1818
citing authors

#	ARTICLE	IF	CITATIONS
1	Hygroscopic metal-organic framework MIL-160(Al): In-situ time-dependent ATR-FTIR and gravimetric study of mechanism and kinetics of water vapor sorption. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 267, 120550.	3.9	12
2	Porphyrin aluminum MOF with ultra-high water sorption capacity: In-situ time-dependent ATR-FTIR spectroscopy and gravimetry to study mechanism of water bonding and desorption. <i>Vibrational Spectroscopy</i> , 2022, 119, 103356.	2.2	8
3	Understanding the structure, bonding and reactions of nanocrystalline semiconductors: a novel high-resolution instrumental method of solid-state synchronous luminescence spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 7022-7036.	2.8	4
4	Interactions of Multiple Water Molecules with MIL-53(Al) and Understanding the Mechanism of Breathing: The DFT Study. <i>Journal of Physical Chemistry C</i> , 2020, 124, 9281-9288.	3.1	5
5	Analysis of various solid samples by synchronous fluorescence spectroscopy and related methods: A review. <i>Talanta</i> , 2020, 216, 120944.	5.5	42
6	The solid-state synchronous vs. conventional fluorescence spectroscopy and complementary methods to study the interactions of aluminum metal-organic framework Basolite A100 with dimethyl sulfoxide. <i>Journal of Luminescence</i> , 2019, 210, 485-492.	3.1	7
7	Distance-dependent Fluorescence Quenching on a Silver Nanoparticle Surface. <i>Chemistry Letters</i> , 2019, 48, 1504-1506.	1.3	2
8	Exploring the electronic structure of aluminum metal-organic framework Basolite A100: solid-state synchronous fluorescence spectroscopy reveals new charge excitation/relaxation pathways. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 26947-26956.	2.8	9
9	Aluminum metal-organic frameworks for sorption in solution: A review. <i>Coordination Chemistry Reviews</i> , 2018, 374, 236-253.	18.8	89
10	Hydrogen by photocatalysis with nitrogen codoped titanium dioxide. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 72, 981-1000.	16.4	65
11	One-pot photo-synthesis and in-situ generation of hydrogen by silver/strontium titanate photocatalyst under visible or near-UV light and role of midgap states: Experiment and DFT computations. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 342, 143-152.	3.9	1
12	Density Functional Study of Neutral and Charged Silver Clusters Ag_n with $n = 2-22$. Evolution of Properties and Structure. <i>Journal of Physical Chemistry A</i> , 2017, 121, 5018-5028.	2.5	67
13	One-pot photoassisted synthesis, in situ photocatalytic testing for hydrogen generation and the mechanism of binary nitrogen and copper promoted titanium dioxide. <i>Photochemical and Photobiological Sciences</i> , 2017, 16, 916-924.	2.9	6
14	Water as probe molecule for midgap states in nanocrystalline strontium titanate by conventional and synchronous luminescence spectroscopy under ambient conditions. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017, 174, 54-61.	3.9	7
15	Visible Emission in Nanocrystalline Rutile: Free Exciton and Water as Probes for Midgap States in Adsorption/Desorption Using Conventional and Synchronous Luminescence Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21985-21994.	3.1	7
16	Trap emission by nanocrystalline anatase in visible range studied by conventional and synchronous luminescence spectroscopy: Adsorption and desorption of water vapor. <i>Journal of Luminescence</i> , 2017, 192, 388-396.	3.1	5
17	Porous calcium titanate and sorption and desorption of water under ambient conditions: a study by conventional and synchronous luminescence spectroscopy. <i>Journal of Porous Materials</i> , 2017, 24, 1145-1154.	2.6	6
18	One-Pot Synthesis and Photocatalytic Hydrogen Generation with Nanocrystalline $Ag(0)/CaTiO_3$ and in Situ Mechanistic Studies. <i>Journal of Physical Chemistry C</i> , 2016, 120, 19970-19979.	3.1	27

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19	Conventional and cryo-synchronous luminescence spectra of orthorhombic calcium titanate. <i>Journal of Luminescence</i> , 2016, 178, 430-436.	3.1	12
20	Photochemical synthesis, characterization, photoinduced electron transfer, charging and discharging in copper-titania colloid. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2016, 317, 1-8.	3.9	5
21	Selective Activation of C=C Bond in Sustainable Phenolic Compounds from Lignin <i>via</i> Photooxidation: Experiment and Density Functional Theory Calculations. <i>Photochemistry and Photobiology</i> , 2015, 91, 1332-1339.	2.5	10
22	Fluorescence of A100 MOF and Adsorption of Water, Indole, and Naphthalene on A100 by the Spectroscopic, Kinetic, and DFT Studies. <i>Journal of Physical Chemistry C</i> , 2015, 119, 2491-2502.	3.1	20
23	Adsorption on Mesoporous Metal-Organic Frameworks in Solution: Aromatic and Heterocyclic Compounds. <i>Chemistry - A European Journal</i> , 2015, 21, 16726-16742.	3.3	53
24	Production of Hydrogen by Glycerol Photoreforming Using Binary Nitrogen-Promoted Ni/TiO_2 Photocatalysts. <i>ChemPhysChem</i> , 2014, 15, 942-949.	2.1	33
25	Interactions of thiophenes with C300 Basolite MOF in solution by the temperature-programmed adsorption and desorption, spectroscopy and simulations. <i>Adsorption</i> , 2014, 20, 829-842.	3.0	12
26	Adsorption of naphthalene and indole on F300 MOF in liquid phase by the complementary spectroscopic, kinetic and DFT studies. <i>Journal of Porous Materials</i> , 2014, 21, 709-727.	2.6	28
27	Reactive adsorption of hydrogen sulfide by promoted sorbents $\text{Cu}/\text{ZnO}/\text{SiO}_2$: active sites by experiment and simulation. <i>Surface and Interface Analysis</i> , 2013, 45, 865-872.	1.8	20
28	Desulfurization of Real and Model Liquid Fuels Using Light: Photocatalysis and Photochemistry. <i>Catalysis Reviews - Science and Engineering</i> , 2012, 54, 281-343.	12.9	47
29	Characterization of active sites, determination of mechanisms of H_2S , COS and CS_2 sorption and regeneration of ZnO low-temperature sorbents: past, current and perspectives. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 3197.	2.8	106
30	Regenerable $\text{Fe}/\text{Mn}/\text{ZnO}/\text{SiO}_2$ sorbents for room temperature removal of H_2S from fuel reformates: performance, active sites, Operando studies. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 2179-2187.	2.8	67
31	Adsorption and desorption of dibenzothiophene on Ag-titania studied by the complementary temperature-programmed XPS and ESR. <i>Applied Surface Science</i> , 2011, 257, 3226-3232.	6.1	22
32	Heterogeneous Photocatalytic Reactions of Sulfur Aromatic Compounds. <i>ChemPhysChem</i> , 2011, 12, 2870-2885.	2.1	30
33	Note: Heated sample platform for <i>in situ</i> temperature-programmed XPS. <i>Review of Scientific Instruments</i> , 2011, 82, 076106.	1.3	0
34	Surface characterization of Ag/Titania adsorbents. <i>Applied Surface Science</i> , 2010, 256, 3647-3652.	6.1	38
35	An <i>in situ</i> temperature-programmed XPS study of the surface chemical reactions of thiophene with Ag/titania. <i>Surface and Interface Analysis</i> , 2010, 42, 1476-1482.	1.8	21
36	Copper-Promoted ZnO/SiO_2 Regenerable Sorbents for the Room Temperature Removal of H_2S from Reformate Gas Streams. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 8388-8396.	3.7	76

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37	Study of the Surface Chemical Reactions of Thiophene with Ag/Titania by the Complementary Temperature-Programmed Electron Spin Resonance, Temperature-Programmed Desorption, and X-ray Photoelectron Spectroscopy: Adsorption, Desorption, and Sorbent Regeneration Mechanisms. <i>Journal of Physical Chemistry C</i> , 2010, 114, 4075-4085.	3.1	20
38	Review of Experimental Characterization of Active Sites and Determination of Molecular Mechanisms of Adsorption, Desorption and Regeneration of the Deep and Ultradeep Desulfurization Sorbents for Liquid Fuels. <i>Catalysis Reviews - Science and Engineering</i> , 2010, 52, 381-410.	12.9	116
39	Oxidation Potentials of Human Eumelanosomes and Pheomelanosomes. <i>Photochemistry and Photobiology</i> , 2005, 81, 145-148.	2.5	11
40	Oxidation Potentials of Human Eumelanosomes and Pheomelanosomes. <i>Photochemistry and Photobiology</i> , 2005, 81, 145.	2.5	67
41	Photoionization Threshold of Eumelanosomes Determined Using UV Free Electron Laser. <i>Journal of Physical Chemistry B</i> , 2004, 108, 16334-16338.	2.6	23
42	Characterization of the Fe(III)-binding Site in Sepia Eumelanin by Resonance Raman Confocal Microspectroscopy. <i>Photochemistry and Photobiology</i> , 2004, 80, 84.	2.5	55
43	Characterization of the Fe(III)-binding Site in Sepia Eumelanin by Resonance Raman Confocal Microspectroscopy. <i>Photochemistry and Photobiology</i> , 2004, 80, 84-88.	2.5	6
44	Oxidation Potentials of Human Eumelanosomes and Pheomelanosomes. <i>Photochemistry and Photobiology</i> , 2004, 81, 145-8.	2.5	18
45	Photoelectron Transmission Through Cascade-Like Langmuir-Blodgett Films Containing CdS Quantum Particles. <i>Advanced Materials</i> , 2001, 13, 584-587.	21.0	8
46	Assemblies of CdS Quantum Particles Studied by the Attenuated Low Energy Photoelectron Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2000, 104, 8631-8634.	2.6	13
47	Wavelength- and Time-Dependent Two-Photon Photoemission Spectroscopy of Dye-Coated Silicon Surface. <i>Journal of Physical Chemistry B</i> , 2000, 104, 11248-11252.	2.6	3