

Igor A Baburin

List of Publications by Year in descending order

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Version: 2024-02-01

42
papers

2,507
citations

218677

26
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276875

41
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43
all docs

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docs citations

43
times ranked

3993
citing authors

#	ARTICLE	IF	CITATIONS
1	Balancing Mechanical Stability and Ultrahigh Porosity in Crystalline Framework Materials. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13780-13783.	13.8	283
2	Zr- and Hf-Based Metal-Organic Frameworks: Tracking Down the Polymorphism. <i>Crystal Growth and Design</i> , 2013, 13, 1231-1237.	3.0	262
3	Interpenetrated Three-Dimensional Networks of Hydrogen-Bonded Organic Species: A Systematic Analysis of the Cambridge Structural Database. <i>Crystal Growth and Design</i> , 2008, 8, 519-539.	3.0	232
4	Interpenetrated three-dimensional hydrogen-bonded networks from metal-organic molecular and one- or two-dimensional polymeric motifs. <i>CrystEngComm</i> , 2008, 10, 1822.	2.6	160
5	A Highly Porous Metal-Organic Framework with Open Nickel Sites. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8489-8492.	13.8	149
6	Route to a Family of Robust, Non-Interpenetrated Metal-Organic Frameworks with p6o-like Topology. <i>Chemistry - A European Journal</i> , 2011, 17, 13007-13016.	3.3	127
7	Identification of Prime Factors to Maximize the Photocatalytic Hydrogen Evolution of Covalent Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2020, 142, 9752-9762.	13.7	94
8	Generating carbon schwarzites via zeolite-templating. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E8116-E8124.	7.1	88
9	Dye Encapsulation Inside a New Mesoporous Metal-Organic Framework for Multifunctional Solvatochromic-Response Function. <i>Chemistry - A European Journal</i> , 2012, 18, 13299-13303.	3.3	86
10	Packings of Carbon Nanotubes - New Materials for Hydrogen Storage. <i>Advanced Materials</i> , 2011, 23, 1237-1241.	21.0	76
11	Three-dimensional hydrogen-bonded frameworks in organic crystals: a topological study. <i>Acta Crystallographica Section B: Structural Science</i> , 2007, 63, 791-802.	1.8	72
12	Interfacial Approach toward Benzene-Bridged Polypyrrole Film-Based Micro-Supercapacitors with Ultrahigh Volumetric Power Density. <i>Advanced Functional Materials</i> , 2020, 30, 1908243.	14.9	60
13	Hydrogen adsorption by perforated graphene. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 6594-6599.	7.1	59
14	Effect of Surface Properties on the Microstructure, Thermal, and Colloidal Stability of VB ₂ Nanoparticles. <i>Chemistry of Materials</i> , 2015, 27, 5106-5115.	6.7	52
15	New Chiral and Flexible Metal-Organic Framework with a Bifunctional Spiro Linker and Zn ₄ O-Nodes. <i>Inorganic Chemistry</i> , 2010, 49, 4440-4446.	4.0	51
16	Interconnection of Nanoparticles within 2D Superlattices of PbS/Oleic Acid Thin Films. <i>Advanced Materials</i> , 2014, 26, 3042-3049.	21.0	51
17	Porous Graphene Oxide/Diboric Acid Materials: Structure and Hydrogen Sorption. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27179-27191.	3.1	49
18	From zeolite nets to sp ³ carbon allotropes: a topology-based multiscale theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 1332-1338.	2.8	45

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19	A rare al ^b -4,8-Cmce metal-organic coordination network based on tetrazolate and phosphonate functionalized 1,3,5,7-tetraphenyladamantane. <i>CrystEngComm</i> , 2013, 15, 1235.	2.6	42
20	Subtle polymorphism of zinc imidazolate frameworks: temperature-dependent ground states in the energy landscape revealed by experiment and theory. <i>CrystEngComm</i> , 2013, 15, 4036-4040.	2.6	38
21	Topological Diversity, Adsorption and Fluorescence Properties of MOFs Based on a Tetracarboxylate Ligand. <i>European Journal of Inorganic Chemistry</i> , 2010, 2010, 3835-3841.	2.0	36
22	Covalent Organic Framework (COF) under High Pressure. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1087-1092.	13.8	34
23	The energy landscapes of zeolitic imidazolate frameworks (ZIFs): towards quantifying the presence of substituents on the imidazole ring. <i>Journal of Materials Chemistry</i> , 2012, 22, 10152-10154.	6.7	29
24	Porous graphite oxide pillared with tetrapod-shaped molecules. <i>Carbon</i> , 2017, 120, 145-156.	10.3	29
25	Syntheses of two imidazolate-4-amide-5-imidate linker-based hexagonal metal-organic frameworks with flexible ethoxy substituent. <i>CrystEngComm</i> , 2013, 15, 9394.	2.6	27
26	Microwave-Assisted Synthesis of Defects Metal-Imidazolate-Amide-Imidate Frameworks and Improved CO ₂ Capture. <i>Inorganic Chemistry</i> , 2015, 54, 10073-10080.	4.0	27
27	Multilayered intercalation of 1-octanol into Brodie graphite oxide. <i>Nanoscale</i> , 2017, 9, 6929-6936.	5.6	27
28	An Isorecticular Family of Microporous Metal-Organic Frameworks Based on Zinc and 2-Substituted Imidazolate-4-amide-5-imidate: Syntheses, Structures and Properties. <i>Chemistry - A European Journal</i> , 2012, 18, 11630-11640.	3.3	26
29	A zeolitic imidazolate framework with conformational variety: conformational polymorphs versus frameworks with static conformational disorder. <i>CrystEngComm</i> , 2016, 18, 2477-2489.	2.6	26
30	Modelling polymorphs of metal-organic frameworks: a systematic study of diamondoid zinc imidazolates. <i>CrystEngComm</i> , 2010, 12, 2809.	2.6	25
31	A family of 2D and 3D coordination polymers involving a trigonal tritopic linker. <i>Dalton Transactions</i> , 2012, 41, 4172.	3.3	25
32	Mechanische Stabilität versus ultrahohe Porosität in kristallinen Netzwerkmaterialien: ein Balanceakt!. <i>Angewandte Chemie</i> , 2018, 130, 13976-13979.	2.0	25
33	Sizes of molecules in organic crystals: the Voronoi-Dirichlet approach. <i>Acta Crystallographica Section B: Structural Science</i> , 2004, 60, 447-452.	1.8	20
34	Graphite oxide swelling in molten sugar alcohols and their aqueous solutions. <i>Carbon</i> , 2018, 140, 157-163.	10.3	15
35	Theoretical investigation of the electronic structure and quantum transport in the graphene-C(111) diamond surface system. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 435302.	1.8	13
36	Indium Imidazolate Frameworks with Differently Distorted ReO ₃ -Type Structures: Syntheses, Structures, Phase Transitions, and Crystallization Studies. <i>Crystal Growth and Design</i> , 2014, 14, 4664-4673.	3.0	11

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37	Morphogenesis of Magnetite Mesocrystals: Interplay between Nanoparticle Morphology and Solvation Shell. <i>Chemistry of Materials</i> , 2021, 33, 9119-9130.	6.7	11
38	On the group-theoretical approach to the study of interpenetrating nets. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2016, 72, 366-375.	0.1	10
39	Exploring the 3D structure and defects of a self-assembled gold mesocrystal by coherent X-ray diffraction imaging. <i>Nanoscale</i> , 2021, 13, 10425-10435.	5.6	8
40	Isotopy classes for 3-periodic net embeddings. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2020, 76, 275-301.	0.1	4
41	Acetylation of graphite oxide. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 21059-21067.	2.8	2
42	On Cayley graphs of $\{bZ\}^4$. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2020, 76, 584-588.	0.1	0