

# Pavel Usov

## List of Publications by Year in descending order

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43  
papers

1,241  
citations

471371

17  
h-index

360920

35  
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44  
all docs

44  
docs citations

44  
times ranked

2141  
citing authors

#	ARTICLE	IF	CITATIONS
1	NUMERICAL ANALYSIS OF TRANSIENT PROCESSES IN VISCOELASTIC HYDRODYNAMIC CONTACT UNDER RECIPROCATING MOTION. <i>Problemy Matematicheskoi i Avtomatizatsionnoi Mekhaniki</i> , 2021, , 81-90.	0.0	0
2	Spectroelectrochemistry: A Powerful Tool for Studying Fundamental Properties and Emerging Applications of Solid-State Materials Including Metal-Organic Frameworks. <i>Australian Journal of Chemistry</i> , 2021, 74, 77.	0.5	5
3	Multi-interactive Coordination Network Featuring a Ligand with Topologically Isolated p Orbitals. <i>Inorganic Chemistry</i> , 2021, 60, 17858-17864.	1.9	3
4	Numerical Analysis of Transition Processes in a Viscoelastic Hydrodynamic Contact during Reverse Motion. <i>Journal of Machinery Manufacture and Reliability</i> , 2021, 50, 661-670.	0.1	1
5	Pyridinium modification of a hexaazaphenylene skeleton: structure and spectroelectrochemical analysis. <i>CrystEngComm</i> , 2020, 22, 5987-5994.	1.3	3
6	Semi-conducting mixed-valent $X_4TCNQ^{\cdot-}$ ( $X = H, F$ ) charge-transfer complexes with $C_6H_2(NH_2)_4$ . <i>Journal of Materials Chemistry C</i> , 2020, 8, 9422-9426.	2.7	4
7	A Semiconducting Cationic Square-Grid Network with Fe III Centers Displaying Unusual Dynamic Behavior. <i>European Journal of Inorganic Chemistry</i> , 2020, 2020, 1255-1259.	1.0	1
8	Solid-Phase Synthesis of Coordination Networks by Using Redox-Active Ligands and Elucidation of Their Oxidation Reaction. <i>Chemistry - A European Journal</i> , 2019, 25, 11512-11520.	1.7	5
9	Independent Quantification of Electron and Ion Diffusion in Metallocene-Doped Metal-Organic Frameworks Thin Films. <i>Journal of the American Chemical Society</i> , 2019, 141, 11947-11953.	6.6	57
10	Contact Problem of Viscoelastic Cylinder Rolling along a Viscoelastic Base with a Viscous Lubricant Layer. <i>Mechanics of Solids</i> , 2019, 54, 289-302.	0.3	0
11	Molecular-Level Insight into $CO_2$ Adsorption on the Zirconium-Based Metal-Organic Framework, UiO-66: A Combined Spectroscopic and Computational Approach. <i>Journal of Physical Chemistry C</i> , 2019, 123, 13731-13738.	1.5	34
12	Synthesis and Defect Characterization of Phase-Pure Zr-MOFs Based on Meso-tetracarboxyphenylporphyrin. <i>Inorganic Chemistry</i> , 2019, 58, 5145-5153.	1.9	70
13	Geometry and energetics of $CO$ adsorption on hydroxylated UiO-66. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 5078-5085.	1.3	17
14	Interligand Charge-Transfer Interactions in Electroactive Coordination Frameworks Based on $N,N'$ -Dicyanoquinonediimine (DCNQI). <i>Inorganic Chemistry</i> , 2018, 57, 9766-9774.	1.9	9
15	A New Class of Metal-Cyclam-Based Zirconium Metal-Organic Frameworks for $CO_2$ Adsorption and Chemical Fixation. <i>Journal of the American Chemical Society</i> , 2018, 140, 993-1003.	6.6	176
16	Insight into Metal-Organic Framework Reactivity: Chemical Water Oxidation Catalyzed by a $[Ru(tpy)(dcbpy)(OH)_2]^{2+}$ -Modified UiO-66. <i>ChemSusChem</i> , 2018, 11, 464-471.	3.6	31
17	Spectroscopic, electronic and computational properties of a mixed tetrachalcogenafulvalene and its charge transfer complex. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1092-1104.	2.7	11
18	Synthesis, characterization, and luminescent properties of two new Zr(IV) metal-organic frameworks based on anthracene derivatives. <i>Canadian Journal of Chemistry</i> , 2018, 96, 875-880.	0.6	7

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19	Numerical Analysis of Lubrication Layer Characteristics in a Supporting Slider Bearing under Reverse Motion. <i>Fluid Dynamics</i> , 2018, 53, S14-S23.	0.2	0
20	Probing charge transfer characteristics in a donor-acceptor metal-organic framework by Raman spectroelectrochemistry and pressure-dependence studies. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 25772-25779.	1.3	28
21	Insights into CO <sub>2</sub> adsorption and chemical fixation properties of VPI-100 metal-organic frameworks. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22195-22203.	5.2	17
22	Characterization of Undercoordinated Zr Defect Sites in UiO-66 with Vibrational Spectroscopy of Adsorbed CO. <i>Journal of Physical Chemistry C</i> , 2018, 122, 14582-14589.	1.5	52
23	Mechanism and Kinetics of Hydrogen Peroxide Decomposition on Platinum Nanocatalysts. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 21224-21234.	4.0	94
24	Benzene, Toluene, and Xylene Transport through UiO-66: Diffusion Rates, Energetics, and the Role of Hydrogen Bonding. <i>Journal of Physical Chemistry C</i> , 2018, 122, 16060-16069.	1.5	60
25	Study of Electrocatalytic Properties of Metal-Organic Framework PCN-223 for the Oxygen Reduction Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 33539-33543.	4.0	143
26	Proton-Coupled Electron Transport in Anthraquinone-Based Zirconium Metal-Organic Frameworks. <i>Inorganic Chemistry</i> , 2017, 56, 13741-13747.	1.9	23
27	Influence of viscoelastic coatings on the contact of lubricated bodies. <i>Russian Engineering Research</i> , 2017, 37, 596-602.	0.2	2
28	Untangling Complex Redox Chemistry in Zeolitic Imidazolate Frameworks Using Fourier Transformed Alternating Current Voltammetry. <i>Analytical Chemistry</i> , 2017, 89, 10181-10187.	3.2	11
29	Guest-Host Complexes of TCNQ and TCNE with Cu <sub>3</sub> (1,3,5-benzenetricarboxylate) <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , 2017, 121, 26330-26339.	1.5	18
30	Elastohydrodynamic problem for journal sliding bearing under reciprocating motion. <i>Journal of Friction and Wear</i> , 2016, 37, 204-212.	0.1	5
31	Intrinsically conducting metal-organic frameworks. <i>MRS Bulletin</i> , 2016, 41, 858-864.	1.7	104
32	Structural and optical investigations of charge transfer complexes involving the radical anions of TCNQ and F <sub>4</sub> TCNQ. <i>CrystEngComm</i> , 2016, 18, 8906-8914.	1.3	34
33	Effects of lubricant viscoelasticity on film thickness in elastohydrodynamic line contacts during start-up. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2016, 230, 769-782.	1.0	3
34	The Electrochemical Transformation of the Zeolitic Imidazolate Framework ZIF-67 in Aqueous Electrolytes. <i>Electrochimica Acta</i> , 2015, 153, 433-438.	2.6	49
35	Magnetic, electrochemical and optical properties of a sulfate-bridged Co(imidazole dimer). <i>New Journal of Chemistry</i> , 2014, 38, 5856-5860.	1.4	12
36	Structural and optical investigations of charge transfer complexes involving the F <sub>4</sub> TCNQ dianion. <i>CrystEngComm</i> , 2014, 16, 5234.	1.3	22

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37	A numerical analysis of the contact of rough viscoelastic bodies in the presence of a layer of viscous lubricant. <i>Prikladnaya Matematika I Mekhanika</i> , 2012, 76, 572-581.	0.4	6
38	Rapid determination of the optical and redox properties of a metal-organic framework via in situ solid state spectroelectrochemistry. <i>Chemical Communications</i> , 2012, 48, 3945.	2.2	111
39	Numerical analysis of viscous elastohydrodynamic point contact under stationary conditions. <i>Journal of Friction and Wear</i> , 2010, 31, 1-10.	0.1	5
40	The contact problem for a viscoelastic layer and rigid cylinder during regular sliding. <i>Journal of Friction and Wear</i> , 2009, 30, 246-257.	0.1	4
41	A numerical analysis of the elastohydrodynamic line contact film formation at motion start-up. <i>Journal of Friction and Wear</i> , 2008, 29, 54-65.	0.1	3
42	Prediction of the lifetime of the elements of the safety and control rods of nuclear reactors. <i>Soviet Atomic Energy</i> , 1987, 62, 20-28.	0.1	1
43	Charge transfer in mixed and segregated stacks of tetrathiafulvalene, tetrathianaphthalene and naphthalene diimide: a structural, spectroscopic and computational study. <i>New Journal of Chemistry</i> , 0, , .	1.4	0