

Grigorii L Soloveichik

List of Publications by Year in descending order

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times ranked

5007
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#	ARTICLE	IF	CITATIONS
1	Flow Batteries: Current Status and Trends. <i>Chemical Reviews</i> , 2015, 115, 11533-11558.	47.7	932
2	Electrochemical synthesis of ammonia as a potential alternative to the Haber-Bosch process. <i>Nature Catalysis</i> , 2019, 2, 377-380.	34.4	463
3	Battery Technologies for Large-Scale Stationary Energy Storage. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2011, 2, 503-527.	6.8	355
4	NMR Confirmation for Formation of $[B_{12}H_{12}]^{2-}$ Complexes during Hydrogen Desorption from Metal Borohydrides. <i>Journal of Physical Chemistry C</i> , 2008, 112, 3164-3169.	3.1	280
5	Structure of unsolvated magnesium borohydride $Mg(BH_4)_2$. <i>Acta Crystallographica Section B: Structural Science</i> , 2007, 63, 561-568.	1.8	215
6	Magnesium borohydride as a hydrogen storage material: Properties and dehydrogenation pathway of unsolvated $Mg(BH_4)_2$. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 916-928.	7.1	211
7	Ammine Magnesium Borohydride Complex as a New Material for Hydrogen Storage: Structure and Properties of $Mg(BH_4)_2 \cdot 2NH_3$. <i>Inorganic Chemistry</i> , 2008, 47, 4290-4298.	4.0	199
8	Reduction of Systematic Uncertainty in DFT Redox Potentials of Transition-Metal Complexes. <i>Journal of Physical Chemistry C</i> , 2012, 116, 6349-6356.	3.1	145
9	Liquid fuel cells. <i>Beilstein Journal of Nanotechnology</i> , 2014, 5, 1399-1418.	2.8	136
10	Electrochemical ammonia synthesis through N_2 and H_2O under ambient conditions: Theory, practices, and challenges for catalysts and electrolytes. <i>Nano Energy</i> , 2020, 69, 104469.	16.0	123
11	Reversible catalytic dehydrogenation of alcohols for energy storage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 1687-1692.	7.1	118
12	Magnesium borohydride as a hydrogen storage material: Synthesis of unsolvated $Mg(BH_4)_2$. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 2144-2152.	7.1	80
13	Multi-functional anodes boost the transient power and durability of proton exchange membrane fuel cells. <i>Nature Communications</i> , 2020, 11, 1191.	12.8	65
14	Unsolvated lanthanidocene hydrides and borohydrides. X-Ray crystal structure of $[(\eta^5-C_5H_3tBu_2)_2Ln(\eta^4-H)]_2$ ($Ln = Ce, Sm$). <i>Journal of Organometallic Chemistry</i> , 1992, 424, 289-300.	1.8	60
15	Understanding and Mitigating Capacity Fade in Aqueous Organic Redox Flow Batteries. <i>Journal of the Electrochemical Society</i> , 2018, 165, A1193-A1203.	2.9	60
16	Aminosilicone Solvents for CO_2 Capture. <i>ChemSusChem</i> , 2010, 3, 919-930.	6.8	57
17	Metal-free energy storage. <i>Nature</i> , 2014, 505, 163-164.	27.8	53
18	Multiple structural variants of $LnCuL(\mu-X)_2CuLn$ ($n = 1, 2$). Influence of halide on a "soft" potential energy surface. <i>Inorganic Chemistry</i> , 1992, 31, 3306-3312.	4.0	49

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19	Tuning redox potentials of bis(imino)pyridine cobalt complexes: an experimental and theoretical study involving solvent and ligand effects. Dalton Transactions, 2012, 41, 3562.	3.3	41
20	Regenerative Fuel Cells for Energy Storage. Proceedings of the IEEE, 2014, 102, 964-975.	21.3	40
21	Alumohydride complex of yttrium with three-coordinated hydrogen atoms. The crystal and molecular structure. Journal of Organometallic Chemistry, 1985, 280, 107-111.	1.8	38
22	Bimetallic Transition Metal Hydride Complexes. Russian Chemical Reviews, 1983, 52, 43-60.	6.5	36
23	Fuel selection for a regenerative organic fuel cell/flow battery: thermodynamic considerations. Energy and Environmental Science, 2012, 5, 9534.	30.8	35
24	Combinatorial discovery of metal co-catalysts for the carbonylation of phenol. Applied Catalysis A: General, 2003, 254, 5-25.	4.3	34
25	Structural chemistry of titanium and aluminium bimetallic hydride complexes. Journal of Organometallic Chemistry, 1985, 280, 53-66.	1.8	32
26	Structural chemistry of titanium and aluminium bimetallic hydride complexes. Journal of Organometallic Chemistry, 1984, 270, 45-51.	1.8	23
27	A change of the bonding mode of the alumohydride group in bis(cyclopentadienyl)hydrido REM complexes: from heterometallic to homometallic hydrides. Crystal and molecular structures of $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Yb}(\eta^{1/2}\text{-H})\text{AlH}_2\text{-N}(\text{C}_2\text{H}_5)_3]_2\text{-C}_6\text{H}_6$, $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Lu}(\eta^{1/2}\text{-H})_2\text{AlH-N}(\text{C}_2\text{H}_5)_3]_2\text{-C}_6\text{H}_6$ and $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Lu}(\eta^{1/2}\text{-H})_2(\eta^{1/3}\text{-H})]$. Journal of Organometallic Chemistry, 1991, 414, 11-22.	1.8	21
28	Interactions in $\text{Cp}_2\text{TiX-AlH}_3\text{-nXn-Et}_2\text{O}(\text{NEt}_3)$ systems. Transition Metal Chemistry, 1981, 6, 32-36.	1.4	19
29	Unprecedented Coordination of the AlH_2^+ and Na^+ Cations in the Structure of the Organometallic Complex $[\text{AlH}_2(\text{OC}_4\text{H}_8)_4][(\eta^5\text{-C}_5\text{H}_5)_3\text{Yb}(\mu\text{-Na})\text{Yb}(\eta^5\text{-C}_5\text{H}_5)_3]$. Organometallics, 1994, 13, 2075-2078.	2.3	18
30	Magnesium Borohydride Complexed by Tetramethylethylenediamine. Inorganic Chemistry, 2007, 46, 3790-3791.	4.0	14
31	Infra red spectra and structures of bimetallic $\text{Cp}_2\text{TiH}_2\text{AlX}(\text{X}?) \cdot \frac{1}{2} \text{L}$ complexes. Transition Metal Chemistry, 1981, 6, 240-246.	1.4	9
32	Kinetically stable adduct of samarocene with aluminium deuteride $(\eta^5\text{-C}_5\text{H}_3\text{tBu}_2)_2\text{Sm}(\eta^{1/2}\text{-D})_2\text{AlD-Me}_2\text{NC}_2\text{H}_4\text{NMe}_2$. Journal of Organometallic Chemistry, 1992, 440, 47-52.	1.8	8
33	Monometal Hydrido-complexes of Transition Metals. Russian Chemical Reviews, 1982, 51, 286-302.	6.5	6
34	Reaction of Methane with Nickel Hydride Complexes Yielding Methyl Derivatives. Mendeleev Communications, 1993, 3, 89.	1.6	5
35	Effects of Organic Impurities on Chloralkali Membrane Electrolyzer Performance. Industrial & Engineering Chemistry Research, 2009, 48, 983-987.	3.7	5
36	Base effects on electrochemical oxidation of indoline. International Journal of Hydrogen Energy, 2013, 38, 3773-3777.	7.1	3

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37	Electrochemical reactions of pincer rhodium(I) complexes. Journal of Organometallic Chemistry, 2014, 762, 94-97.	1.8	3
38	Use of Electrochemical Methods for Evaluation of Components for Liquid Fuel Cells. ECS Transactions, 2011, 41, 1997-2002.	0.5	0
39	Fuel Cells Operating at 200 to 500 Celsius: Lessons Learned from the ARPA-E REBELS Program. ECS Transactions, 2017, 78, 21-31.	0.5	0