

# Faisal M Alamgir

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

4,478  
citations

201385

27  
h-index

106150

65  
g-index

70  
all docs

70  
docs citations

70  
times ranked

6192  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic packing and short-to-medium-range order in metallic glasses. <i>Nature</i> , 2006, 439, 419-425.	13.7	1,758
2	Nanostructured electrodes for lithium-ion and lithium-air batteries: the latest developments, challenges, and perspectives. <i>Materials Science and Engineering Reports</i> , 2011, 72, 203-252.	14.8	467
3	Rational SOFC material design: new advances and tools. <i>Materials Today</i> , 2011, 14, 534-546.	8.3	263
4	Icosahedral Short-Range Order in Amorphous Alloys. <i>Physical Review Letters</i> , 2004, 92, 145502.	2.9	216
5	Direct Spectroscopic Observation of the Structural Origin of Peroxide Generation from Co-Based Pyrolyzed Porphyrins for ORR Applications. <i>Journal of Physical Chemistry C</i> , 2008, 112, 8839-8849.	1.5	215
6	Enhanced Photoassisted Water Electrolysis Using Vertically Oriented Anodically Fabricated Ti <sup>4+</sup> Nb <sup>5+</sup> Zr <sup>4+</sup> O Mixed Oxide Nanotube Arrays. <i>ACS Nano</i> , 2010, 4, 5819-5826.	7.3	85
7	Ultra-high selectivity of H <sub>2</sub> over CO with a p-n nanojunction based gas sensors and its mechanism. <i>Sensors and Actuators B: Chemical</i> , 2020, 319, 128330.	4.0	83
8	Tuning of higher alcohol selectivity and productivity in CO hydrogenation reactions over K/MoS <sub>2</sub> domains supported on mesoporous activated carbon and mixed MgAl oxide. <i>Journal of Catalysis</i> , 2015, 324, 88-97.	3.1	80
9	Comparative Study of the Capacity and Rate Capability of LiNi <sub>y</sub> Mn <sub>x</sub> Co <sub>1-y-x</sub> O <sub>2</sub> (y = 0.5, 0.45, 0.4, 0.33). <i>Journal of the Electrochemical Society</i> , 2011, 158, A516.	1.3	74
10	Elucidating the oxide growth mechanism on platinum at the cathode in PEM fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 5301.	1.3	58
11	Oxygen and transition metal involvement in the charge compensation mechanism of LiNi <sub>1/3</sub> Mn <sub>1/3</sub> Co <sub>1/3</sub> O <sub>2</sub> cathodes. <i>Journal of Materials Chemistry</i> , 2012, 22, 19993.	6.7	56
12	In Situ Probing of the Mechanisms of Coking Resistance on Catalyst-Modified Anodes for Solid Oxide Fuel Cells. <i>Chemistry of Materials</i> , 2015, 27, 822-828.	3.2	54
13	Diffusion kinetics mechanism of oxygen ion in dense diffusion barrier limiting current oxygen sensors. <i>Journal of Alloys and Compounds</i> , 2021, 855, 157465.	2.8	54
14	Interface Architecture Determined Electrocatalytic Activity of Pt on Vertically Oriented TiO <sub>2</sub> Nanotubes. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 147-151.	4.0	53
15	An Experimental Insight into the Structural and Electronic Characteristics of Strontium-Doped Titanium Dioxide Nanotube Arrays. <i>Advanced Functional Materials</i> , 2014, 24, 6783-6796.	7.8	49
16	Influence of annealing on ionic transfer and storage stability of Li <sub>2</sub> S-P <sub>2</sub> S <sub>5</sub> solid electrolyte. <i>Journal of Power Sources</i> , 2015, 294, 494-500.	4.0	41
17	Layer-by-Layer Evolution of Structure, Strain, and Activity for the Oxygen Evolution Reaction in Graphene-Templated Pt Monolayers. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 6180-6188.	4.0	40
18	Polymeric Î-MgCl <sub>2</sub> nanoribbons. <i>Inorganica Chimica Acta</i> , 2006, 359, 2513-2518.	1.2	39

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19	Proton conductivity and methanol permeability study of polymer electrolyte membranes with range of functionalized clay content for fuel cell application. <i>European Polymer Journal</i> , 2019, 110, 155-167.	2.6	36
20	Epitaxial and atomically thin graphene-metal hybrid catalyst films: the dual role of graphene as the support and the chemically-transparent protective cap. <i>Energy and Environmental Science</i> , 2018, 11, 1610-1616.	15.6	34
21	Mixed conductivity evaluation and sensing characteristics of limiting current oxygen sensors. <i>Surfaces and Interfaces</i> , 2020, 21, 100762.	1.5	34
22	Layer-by-Layer Pt Growth on Polycrystalline Au: Surface-Limited Redox Replacement of Overpotentially Deposited Ni Monolayers. <i>Journal of the Electrochemical Society</i> , 2009, 156, D513.	1.3	32
23	<i>In-situ</i> oxygen x-ray absorption spectroscopy investigation of the resistance modulation mechanism in LiNbO <sub>2</sub> memristors. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	31
24	Architecture-Dependent Surface Chemistry for Pt Monolayers on Carbon-Supported Au. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 3948-3956.	4.0	30
25	Operando and <i>In-situ</i> X-ray Spectroscopies of Degradation in La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-δ</sub> Thin Film Cathodes in Fuel Cells. <i>ChemSusChem</i> , 2014, 7, 3078-3087.	3.6	30
26	Cu@Pt catalysts prepared by galvanic replacement of polyhedral copper nanoparticles for polymer electrolyte membrane fuel cells. <i>Electrochimica Acta</i> , 2019, 306, 167-174.	2.6	30
27	Electrical polarization of titanium surfaces for the enhancement of osteoblast differentiation. <i>Bioelectromagnetics</i> , 2013, 34, 599-612.	0.9	28
28	Nuclear Magnetic Resonance and X-Ray Absorption Spectroscopic Studies of Lithium Insertion in Silver Vanadium Oxide Cathodes. <i>Journal of the Electrochemical Society</i> , 2007, 154, A500.	1.3	25
29	Electronic structure of Pd-based bulk metallic glasses. <i>Journal of Non-Crystalline Solids</i> , 2000, 274, 289-293.	1.5	24
30	Near-Edge X-ray Absorption Fine Structure Studies of Electrospun Poly(dimethylsiloxane)/Poly(methyl Tj ETQqO O QrgBT /Overlock 10 T	1.6	24
31	Iron Phosphide Confined in Carbon Nanofibers as a Free-Standing Flexible Anode for High-Performance Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 34074-34083.	4.0	24
32	Pt/graphene with intercalated carbon nanotube spacers introduced by electrostatic self-assembly for fuel cells. <i>Materials Chemistry and Physics</i> , 2019, 225, 371-378.	2.0	23
33	Porous FeP/C composite nanofibers as high-performance anodes for Li-ion/Na-ion batteries. <i>Materials Today Energy</i> , 2020, 16, 100410.	2.5	23
34	Contiguous and Atomically Thin Pt Film with Supra-Bulk Behavior Through Graphene-Imposed Epitaxy. <i>Advanced Functional Materials</i> , 2019, 29, 1902274.	7.8	22
35	Cobalt phosphide embedded in a graphene nanosheet network as a high-performance anode for Li-ion batteries. <i>Dalton Transactions</i> , 2019, 48, 7778-7785.	1.6	22
36	Ultrathin silver films on Ni(111). <i>Physical Review B</i> , 2010, 82, .	1.1	20

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37	The structure of a metallic glass system using EXELFS and EXAFS as complementary probes. Micron, 2003, 34, 433-439.	1.1	18
38	<i>In situ</i> investigation of the channel conductance of a $\text{Li}_{1-x}\text{CoO}_2$ ( $0 \leq x \leq 0.5$ ) ionic-electronic transistor. Applied Physics Letters, 2013, 102, .	1.5	18
39	Lithium-7 nuclear magnetic resonance and Ti K-edge X-ray absorption spectroscopic investigation of electrochemical lithium insertion in $\text{Li}_{4/3+x}\text{Ti}_5/3\text{O}_4$ . Journal of Power Sources, 2003, 119-121, 631-636.	4.0	17
40	Synthesis of embedded iron nanoparticles in Fe <sub>3</sub> C-derived carbons. Carbon, 2014, 79, 74-84.	5.4	17
41			

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55	Bandgap bowing in Ta-W-O system for efficient solar energy conversion: Insights from density functional theory and X-ray diffraction. Applied Physics Letters, 2013, 103, 133905.	1.5	9
56	Near Surface Phase Transition of Solute Derived Pt Monolayers. Topics in Catalysis, 2013, 56, 1065-1073.	1.3	8
57	Extended energy-loss fine structure analysis of 3d transition metals using L ionization edges. Philosophical Magazine Letters, 2001, 81, 213-222.	0.5	6
58	Thin-Film Lithium Niobites and Their Chemical Properties for Lithium-Ion Storage and Diffusion. ChemElectroChem, 2019, 6, 5109-5115.	1.7	6
59	Substoichiometric Tuning of the Electronic Properties of Titania. Thin Solid Films, 2021, 717, 138437.	0.8	6
60	Immobilization of molecular catalysts on solid supports via atomic layer deposition for chemical synthesis in sustainable solvents. Green Chemistry, 2021, 23, 9523-9533.	4.6	6
61	Synthesis and Characterization of Monolayer Bimetallic Surfaces: A Synchrotron NEXAFS and XPS Study. ECS Transactions, 2009, 19, 97-106.	0.3	5
62	Laser shock compression induced crystallization of Ce3Al metallic glass. Journal of Applied Physics, 2018, 124, 035904.	1.1	2
63	X-ray Absorption Spectroscopy Investigation of the Sub-Nanoscale Strain in Thin-Film Lithium Ion Battery Cathodes. Materials Research Society Symposia Proceedings, 2004, 822, S2.3.1.	0.1	1
64	Towards a perfect system for solar hydrogen production: an example of synergy on the atomic scale. , 2013, , .		1
65	Nanotubes: An Experimental Insight into the Structural and Electronic Characteristics of Strontium-Doped Titanium Dioxide Nanotube Arrays (Adv. Funct. Mater. 43/2014). Advanced Functional Materials, 2014, 24, 6782-6782.	7.8	1
66	Effect of morphology evolution from nanotubes to concatenated nanoparticles of hierarchical TiO2 nanostructures on power conversion efficiency of dye-sensitized solar cells. Journal of Alloys and Compounds, 2017, 708, 508-516.	2.8	1
67	Measured and Calculated Electronic Structure of Ni <sub>0.40</sub> Pd <sub>0.40</sub> Po <sub>0.20</sub> and Cu <sub>0.40</sub> Pd <sub>0.40</sub> Po <sub>0.20</sub> . Materials Research Society Symposia Proceedings, 2002, 754, 1.	0.1	0
68	Exelfs and Exafs: Complementary Probes into the Structure of Metallic Glasses. Microscopy and Microanalysis, 2002, 8, 608-609.	0.2	0
69	Polymer-carbon nanotube composites: electrospinning, alignment and interactions. , 2014, , .		0
70	Synchrotron X-ray Based <i>Operando</i> Studies of Atomic and Electronic Structure in Batteries. Materials and Energy, 2015, , 79-108.	2.5	0