

# Heshmat Noei

## List of Publications by Year in descending order

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73  
papers

2,654  
citations

186209

28  
h-index

197736

49  
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81  
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81  
docs citations

81  
times ranked

4334  
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface structure of magnetite (111) under oxidizing and reducing conditions. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 164003.	0.7	7
2	Controlled Growth of Gold Nanoparticles on Covellite Copper Sulfide Nanoplatelets for the Formation of Plateâ€“Satellite Hybrid Structures. <i>Chemistry of Materials</i> , 2022, 34, 1157-1166.	3.2	7
3	Strengthening Engineered Nanocrystal Three-Dimensional Superlattices via Ligand Conformation and Reactivity. <i>ACS Nano</i> , 2022, 16, 11692-11707.	7.3	8
4	<i>Operando</i> reaction cell for high energy surface sensitive x-ray diffraction and reflectometry. <i>Review of Scientific Instruments</i> , 2022, 93, .	0.6	2
5	Metastability of palladium carbide nanoparticles during hydrogen release from liquid organic hydrogen carriers. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 1371-1380.	1.3	5
6	Heterogeneous Adsorption and Local Ordering of Formate on a Magnetite Surface. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3847-3852.	2.1	7
7	Durability of Colloidally Stabilized Supported Nickel and Nickel Platinum Nanoparticles during Redox-Cycling. <i>Journal of Physical Chemistry C</i> , 2021, 125, 8224-8235.	1.5	1
8	Temperature-dependent near-surface interstitial segregation in niobium. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 265001.	0.7	3
9	Response of free-standing graphene monolayer exposed to ultrashort intense XUV pulse from free-electron laser. <i>Journal of Chemical Physics</i> , 2021, 154, 204706.	1.2	3
10	A model study on controlling dealloying corrosion attack by lateral modification of surfactant inhibitors. <i>Npj Materials Degradation</i> , 2021, 5, .	2.6	8
11	Gold Nanoparticle-Based Chemiresistors: Recognition of Volatile Organic Compounds Using Tunable Response Kinetics. <i>ACS Applied Nano Materials</i> , 2021, 4, 10399-10408.	2.4	8
12	Hydrogen Solubility and Atomic Structure of Graphene Supported Pd Nanoclusters. <i>ACS Nano</i> , 2021, 15, 15771-15780.	7.3	9
13	Copper Nanoparticles with High Index Facets on Basal and Vicinal ZnO Surfaces. <i>Journal of Physical Chemistry C</i> , 2021, 125, 23561-23569.	1.5	6
14	Grain boundary segregation and carbide precipitation in heat treated niobium superconducting radio frequency cavities. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	5
15	Effect of Cr on the hydrogen storage and electronic properties of BCC alloys: Experimental and first-principles study. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 28996-29008.	3.8	21
16	Ultrafast Real-Time Dynamics of CO Oxidation over an Oxide Photocatalyst. <i>ACS Catalysis</i> , 2020, 10, 13650-13658.	5.5	11
17	Elucidating the Defect-Induced Changes in the Photocatalytic Activity of TiO <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , 2020, 124, 12539-12547.	1.5	19
18	Function Follows Form: From Semiconducting to Metallic toward Superconducting PbS Nanowires by Faceting the Crystal. <i>Advanced Functional Materials</i> , 2020, 30, 1910503.	7.8	5

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19	Lateral variation of the native passive film on super duplex stainless steel resolved by synchrotron hard X-ray photoelectron emission microscopy. <i>Corrosion Science</i> , 2020, 174, 108841.	3.0	22
20	Observation of iron diffusion in the near-surface region of magnetite at 470 K. <i>Physical Review Research</i> , 2020, 2, .	1.3	3
21	Carboxylic acid induced near-surface restructuring of a magnetite surface. <i>Communications Chemistry</i> , 2019, 2, .	2.0	17
22	Protein-Protected Porous Bimetallic AgPt Nanoparticles with pH-Switchable Peroxidase/Catalase-Mimicking Activity. , 2019, 1, 310-319.		35
23	Tuning the Elasticity of Cross-Linked Gold Nanoparticle Assemblies. <i>Journal of Physical Chemistry C</i> , 2019, 123, 19165-19174.	1.5	11
24	Interaction of Water with Graphene/Ir(111) Studied by Vibrational Spectroscopy. <i>Langmuir</i> , 2019, 35, 11285-11290.	1.6	7
25	A high-pressure x-ray photoelectron spectroscopy instrument for studies of industrially relevant catalytic reactions at pressures of several bars. <i>Review of Scientific Instruments</i> , 2019, 90, .	0.6	63
26	Water and Atomic Hydrogen Adsorption on Magnetite (001). <i>Journal of Physical Chemistry C</i> , 2019, 123, 26662-26672.	1.5	10
27	Modulating the Mechanical Properties of Supercrystalline Nanocomposite Materials via Solvent-Ligand Interactions. <i>Langmuir</i> , 2019, 35, 13893-13903.	1.6	26
28	Elasticity of Cross-Linked Titania Nanocrystal Assemblies Probed by AFM-Bulge Tests. <i>Nanomaterials</i> , 2019, 9, 1230.	1.9	6
29	Surface Reconstruction under the Exposure of Electric Fields Enhances the Reactivity of Donor-Doped SrTiO <sub>3</sub> . <i>Journal of Physical Chemistry C</i> , 2019, 123, 16883-16892.	1.5	26
30	Characterization of Native Oxide and Passive Film on Austenite/Ferrite Phases of Duplex Stainless Steel Using Synchrotron HAXPEEM. <i>Journal of the Electrochemical Society</i> , 2019, 166, C3336-C3340.	1.3	22
31	Niobium near-surface composition during nitrogen infusion relevant for superconducting radio-frequency cavities. <i>Physical Review Accelerators and Beams</i> , 2019, 22, .	0.6	18
32	A New Synthesis Approach for Carbon Nitrides: Poly(triazine imide) and Its Photocatalytic Properties. <i>ACS Omega</i> , 2018, 3, 3892-3900.	1.6	37
33	High-Performance and p-Type Field-Effect Transistors Based on Hybridly Surface-Passivated Colloidal PbS Nanosheets. <i>Advanced Functional Materials</i> , 2018, 28, 1706815.	7.8	15
34	Monitoring the Interaction of CO with Graphene Supported Ir Clusters by Vibrational Spectroscopy and Density Functional Theory Calculations. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4281-4289.	1.5	9
35	Surface characterization of nitrogen-doped Nb (100) large-grain superconducting RF cavity material. <i>Journal of Materials Science</i> , 2018, 53, 10411-10422.	1.7	9
36	Toward Optimization of Centrifugal Barrel Polishing Procedure for Treatment of Niobium Cavities. <i>IEEE Transactions on Applied Superconductivity</i> , 2018, 28, 1-5.	1.1	2

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37	Atomically thin monolayers of metal organic frameworks (MOFs) through implementing a Langmuir-Schaefer method. AIP Conference Proceedings, 2018, , .	0.3	1
38	Fabrication of Strain Gauges via Contact Printing: A Simple Route to Healthcare Sensors Based on Cross-Linked Gold Nanoparticles. ACS Applied Materials & Interfaces, 2018, 10, 37374-37385.	4.0	42
39	Adsorption of Acetone on Rutile TiO <sub>2</sub> : A DFT and FTIRS Study. Journal of Physical Chemistry C, 2018, 122, 19481-19490.	1.5	23
40	Dehydrogenation of Liquid Organic Hydrogen Carriers on Supported Pd Model Catalysts: Carbon Incorporation Under Operation Conditions. Catalysis Letters, 2018, 148, 2901-2910.	1.4	6
41	Model Catalytic Studies of Novel Liquid Organic Hydrogen Carriers: Indole, Indoline and Octahydroindole on Pt(111). Chemistry - A European Journal, 2017, 23, 14806-14818.	1.7	24
42	Atomic structure and stability of magnetite Fe <sub>3</sub> O <sub>4</sub> (001): An X-ray view. Surface Science, 2016, 653, 76-81.	0.8	40
43	Structure and stability of Gd-doped CeO <sub>2</sub> thin films on yttria-stabilized zirconia. Thin Solid Films, 2016, 603, 56-61.	0.8	24
44	Organically linked iron oxide nanoparticle supercrystals with exceptional isotropic mechanical properties. Nature Materials, 2016, 15, 522-528.	13.3	140
45	Interaction of carboxylic acids with rutile TiO <sub>2</sub> (110): IR-investigations of terephthalic and benzoic acid adsorbed on a single crystal substrate. Surface Science, 2016, 643, 117-123.	0.8	39
46	The Interaction of Formic Acid with Zinc Oxide: A Combined Experimental and Theoretical Study on Single Crystal and Powder Samples. Topics in Catalysis, 2015, 58, 174-183.	1.3	32
47	Adsorption of Formic Acid on the Fe <sub>3</sub> O <sub>4</sub> (001) Surface. Journal of Physical Chemistry C, 2015, 119, 20459-20465.	1.5	42
48	Ionic Liquid-Assisted Sonochemical Preparation of CeO <sub>2</sub> Nanoparticles for CO Oxidation. ACS Sustainable Chemistry and Engineering, 2015, 3, 42-54.	3.2	55
49	Catalytic Behaviour of Mesoporous Cobalt-Aluminum Oxides for CO Oxidation. Journal of Catalysis, 2014, 2014, 1-9.	0.5	2
50	How Different Characterization Techniques Elucidate the Nature of the Gold Species in a Polycrystalline Au/TiO <sub>2</sub> Catalyst. Chemie-Ingenieur-Technik, 2014, 86, 1883-1889.	0.4	2
51	Multifunctional, Defect-Engineered Metal-Organic Frameworks with Ruthenium Centers: Sorption and Catalytic Properties. Angewandte Chemie - International Edition, 2014, 53, 7058-7062.	7.2	237
52	TiO <sub>2</sub> nanoparticles containing sulphonated cobalt phthalocyanine: Preparation, characterization and photocatalytic performance. Journal of Environmental Chemical Engineering, 2014, 2, 484-494.	3.3	33
53	Low-Temperature Oxidation of Carbon Monoxide with Gold(III) Ions Supported on Titanium Oxide. Angewandte Chemie - International Edition, 2014, 53, 3245-3249.	7.2	46
54	Mild yet phase-selective preparation of TiO <sub>2</sub> nanoparticles from ionic liquids – a critical study. Nanoscale, 2013, 5, 8045.	2.8	47

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55	A combined experimental and computational study on the adsorption and reactions of NO on rutile TiO <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 466-472.	1.3	21
56	CO Adsorption on a Mixed-Valence Ruthenium Metal-Organic Framework Studied by UHV-FTIR Spectroscopy and DFT Calculations. <i>Journal of Physical Chemistry C</i> , 2013, 117, 5658-5666.	1.5	48
57	Iron Metal-Organic Frameworks MIL-88B and NH <sub>2</sub> -MIL-88B for the Loading and Delivery of the Gasotransmitter Carbon Monoxide. <i>Chemistry - A European Journal</i> , 2013, 19, 6785-6790.	1.7	134
58	Vibrational spectroscopic studies on pure and metal-covered metal oxide surfaces. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 1204-1221.	0.7	19
59	Coverage-Induced Hydrogen Transfer on ZnO Surfaces: From Ideal to Real Systems. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 1977-1981.	7.2	16
60	Probing the Mechanism of Low-Temperature CO Oxidation on Au/ZnO Catalysts by Vibrational Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2012, 116, 11181-11188.	1.5	31
61	The Surface Science Approach for Understanding Reactions on Oxide Powders: The Importance of IR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 4731-4734.	7.2	68
62	Low-Temperature CO Oxidation over Cu-Based Metal-Organic Frameworks Monitored by using FTIR Spectroscopy. <i>ChemCatChem</i> , 2012, 4, 755-759.	1.8	38
63	Dissociation of formic acid on anatase TiO <sub>2</sub> (101) probed by vibrational spectroscopy. <i>Catalysis Today</i> , 2012, 182, 12-15.	2.2	58
64	Rare-earth substituted HfO <sub>2</sub> thin films grown by metalorganic chemical vapor deposition. <i>Thin Solid Films</i> , 2012, 520, 4512-4517.	0.8	9
65	Activation of Carbon Dioxide on ZnO Nanoparticles Studied by Vibrational Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2011, 115, 908-914.	1.5	79
66	Solvothermal growth of a ruthenium metal-organic framework featuring HKUST-1 structure type as thin films on oxide surfaces. <i>Chemical Communications</i> , 2011, 47, 8509.	2.2	118
67	ZnO@ZIF-8: stabilization of quantum confined ZnO nanoparticles by a zinc methylimidazolate framework and their surface structural characterization probed by CO <sub>2</sub> adsorption. <i>Journal of Materials Chemistry</i> , 2011, 21, 5907.	6.7	101
68	Use of confocal fluorescence microscopy to compare different methods of modifying metal-organic framework (MOF) crystals with dyes. <i>CrystEngComm</i> , 2011, 13, 2828.	1.3	47
69	The interaction of carbon monoxide with clean and surface-modified zinc oxide nanoparticles: A UHV-FTIRS study. <i>Applied Catalysis A: General</i> , 2011, 391, 31-35.	2.2	33
70	Hydrogen Loading of Oxide Powder Particles: A Transmission IR Study for the Case of Zinc Oxide. <i>ChemPhysChem</i> , 2010, 11, 3604-3607.	1.0	40
71	The identification of hydroxyl groups on ZnO nanoparticles by infrared spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 7092.	1.3	320
72	Rapid determination of aluminum by UV-vis diffuse reflectance spectroscopy with application of suitable adsorbents. <i>Talanta</i> , 2006, 70, 933-939.	2.9	43

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73	DESY NanoLab. Journal of Large-scale Research Facilities JLSRF, 0, 2, A76.	0.0	68