Judy N Hart

List of Publications by Year
in descending order

75 papers	2,266 citations	186265 28 h-index	233421 45 g-index
76 all docs	76 docs citations	76 times ranked	3625 citing authors

#	Article	IF	Citations
1	Enhancement of oxygen exchanging capability by loading a small amount of ruthenium over ceria-zirconia on dry reforming of methane. Advanced Powder Technology, 2022, 33, 103407.	4.1	8
2	Density Functional Theory Investigation of the Biocatalytic Mechanisms of pH-Driven Biomimetic Behavior in CeO₂. ACS Applied Materials & Interfaces, 2022, 14, 11937-11949.	8.0	21
3	Designing 3d metal oxides: selecting optimal density functionals for strongly correlated materials. Physical Chemistry Chemical Physics, 2022, 24, 14119-14139.	2.8	4
4	Defective Sn-Zn perovskites through bio-directed routes for modulating CO2RR. Nano Energy, 2022, 101, 107593.	16.0	14
5	Hunting the elusive shallow n-type donor â€“ An ab initio study of Li and N co-doped diamond. Carbon, 2021, 171, 857-868.	10.3	9
6	Photogenerated charge dynamics of CdS nanorods with spatially distributed MoS2 for photocatalytic hydrogen generation. Chemical Engineering Journal, 2021, 420, 127709.	12.7	56
7	Optical Tuning of Resistance Switching in Polycrystalline Gallium Phosphide Thin Films. Journal of Physical Chemistry Letters, 2021, 12, 2327-2333.	4.6	8
8	Accelerating Electronâ€Transfer and Tuning Product Selectivity Through Surficial Vacancy Engineering on CZTS/CdS for Photoelectrochemical CO₂ Reduction. Small, 2021, 17, e2100496.	10.0	40
9	A screen-printed Ag/AgCl reference electrode with long-term stability for electroanalytical applications. Electrochimica Acta, 2021, 393, 139043.	5.2	18
10	Energy landscapes of perfect and defective solids: from structure prediction to ion conduction. Theoretical Chemistry Accounts, 2021, 140, 1.	1.4	5
11	Enhancement of CeO₂ Silanization by Spontaneous Breakage of Siâ€“O Bonds through Facet Engineering. Journal of Physical Chemistry C, 2020, 124, 2644-2655.	3.1	8
12	DFT study of various tungstates for photocatalytic water splitting. Physical Chemistry Chemical Physics, 2020, 22, 1727-1737.	2.8	50
13	Physical Aging Investigations of a Spirobisindane-Locked Polymer of Intrinsic Microporosity. , 2020, 2, 993-998.		11
14	Dynamic single-site polysulfide immobilization in long-range disorder Cu-MOFs. Chemical Communications, 2020, 56, 10074-10077.	4.1	1
15	Uncovering Atomicâ€Scale Stability and Reactivity in Engineered Zinc Oxide Electrocatalysts for Controllable Syngas Production. Advanced Energy Materials, 2020, 10, 2001381.	19.5	51
16	A pulse electrodeposited amorphous tunnel layer stabilises Cu₂O for efficient photoelectrochemical water splitting under visible-light irradiation. Journal of Materials Chemistry A, 2020, 8, 5638-5646.	10.3	78
17	Light-Induced Formation of MoO<i>_x</i>S<i>_y</i> Clusters on CdS Nanorods as Cocatalyst for Enhanced Hydrogen Evolution. ACS Applied Materials & Interfaces, 2020, 12, 8324-8332.	8.0	67
18	Strain engineering of oxide thin films for photocatalytic applications. Nano Energy, 2020, 72, 104732.	16.0	26

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19	Cu2O photocatalyst: Activity enhancement driven by concave surface. Materials Today Energy, 2020, 16, 100422.	4.7	9
20	Composite Ag/AgCl/KCl Screen-Printed Reference Electrode. ECS Meeting Abstracts, 2020, MA2020-01, 2568-2568.	0.0	0
21	DFT Study of Methanol Adsorption on Defectâ€Free CeO₂ Lowâ€Index Surfaces. ChemPhysChem, 2019, 20, 2074-2081.	2.1	20
22	Interfacial origins of visible-light photocatalytic activity in ZnSâ€"GaP multilayers. Acta Materialia, 2019, 181, 139-147.	7.9	5
23	GaPâ€"ZnS Multilayer Films: Visible-Light Photoelectrodes by Interface Engineering. Journal of Physical Chemistry C, 2019, 123, 3336-3342.	3.1	7
24	Graphene and novel graphitic ZnO and ZnS nanofilms: the energy landscape, non-stoichiometry and water dissociation. Nanoscale Advances, 2019, 1, 1924-1935.	4.6	6
25	Light-Induced Synergistic Multidefect Sites on TiO₂/SiO₂ Composites for Catalytic Dehydrogenation. ACS Catalysis, 2019, 9, 2674-2684.	11.2	41
26	Calciteâ€"magnesite solid solutions: using genetic algorithms to understand non-ideality. Physics and Chemistry of Minerals, 2019, 46, 193-202.	0.8	3
27	Mixing Thermodynamics and Photocatalytic Properties of GaPâ€"ZnS solid solutions. Advanced Theory and Simulations, 2019, 2, 1800146.	2.8	7
28	Manipulation of Charge Transport by Metallic V₁₃O₁₆ Decorated on Bismuth Vanadate Photoelectrochemical Catalyst. Advanced Materials, 2019, 31, e1807204.	21.0	57
29	Improving the Photo-Oxidative Performance of Bi₂MoO₆ by Harnessing the Synergy between Spatial Charge Separation and Rational Co-Catalyst Deposition. ACS Applied Materials & Interfaces, 2018, 10, 9342-9352.	8.0	44
30	Planar-dependent oxygen vacancy concentrations in photocatalytic CeO₂ nanoparticles. CrystEngComm, 2018, 20, 204-212.	2.6	24
31	Optical properties of zirconia ceramics for esthetic dental restorations: A systematic review. Journal of Prosthetic Dentistry, 2018, 119, 36-46.	2.8	168
32	Mulliteâ€glass and mulliteâ€mullite interfaces: Analysis by molecular dynamics (<scp>MD</scp>) simulation and highâ€resolution <scp>TEM</scp>. Journal of the American Ceramic Society, 2018, 101, 428-439.	3.8	11
33	Hybrid Solid Polymer Electrolytes with Twoâ€Dimensional Inorganic Nanofillers. Chemistry - A European Journal, 2018, 24, 18180-18203.	3.3	41
34	Critical role of {002} preferred orientation on electronic band structure of electrodeposited monoclinic WO₃ thin films. Sustainable Energy and Fuels, 2018, 2, 2224-2236.	4.9	24
35	Adventures in boron chemistry â€" the prediction of novel ultra-flexible boron oxide frameworks. Faraday Discussions, 2018, 211, 569-591.	3.2	5
36	Oxygen-deficient bismuth tungstate and bismuth oxide composite photoanode with improved photostability. Science Bulletin, 2018, 63, 990-996.	9.0	29

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37	Localised nanoscale resistive switching in GaP thin films with low power consumption. Journal of Materials Chemistry C, 2017, 5, 2153-2159.	5.5	7
38	Enhancing bimetallic synergy with light: the effect of UV light pre-treatment on catalytic oxygen activation by bimetallic Auâ€“Pt nanoparticles on a TiO₂support. Catalysis Science and Technology, 2017, 7, 4792-4805.	4.1	24
39	Growth mechanism of ceria nanorods by precipitation at room temperature and morphology-dependent photocatalytic performance. CrystEngComm, 2017, 19, 4766-4776.	2.6	34
40	Elucidating the impact of A-site cation change on photocatalytic H₂ and O₂ evolution activities of perovskite-type LnTaON₂ (Ln = La and Pr). Physical Chemistry Chemical Physics, 2017, 19, 22210-22220.	2.8	44
41	ZnS Thin Films for Visible-Light Active Photoelectrodes: Effect of Film Morphology and Crystal Structure. Crystal Growth and Design, 2016, 16, 2461-2465.	3.0	27
42	Defect engineering of ZnS thin films for photoelectrochemical water-splitting under visible light. Solar Energy Materials and Solar Cells, 2016, 153, 179-185.	6.2	69
43	Investigating the effect of UV light pre-treatment on the oxygen activation capacity of Au/TiO₂. Catalysis Science and Technology, 2016, 6, 8188-8199.	4.1	14
44	Enhanced Photovoltaic Effect in Feâ€Doped (Bi, Na) TiO₃â€BaTiO₃ Ferroelectric Ceramics. International Journal of Applied Ceramic Technology, 2016, 13, 896-903.	2.1	9
45	Interfacial Reactions Between BaAl2Si2O8 and Molten Al Alloy at 1423ÂK and 1523ÂK (1150ÂÂ°C and 1250ÂÂ°C). Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 1753-1764.	2.1	4
46	Exploring Cu oxidation state on TiO2 and its transformation during photocatalytic hydrogen evolution. Applied Catalysis A: General, 2016, 521, 190-201.	4.3	73
47	Hydrogen evolution via glycerol photoreforming over Cuâ€“Pt nanoalloys on TiO2. Applied Catalysis A: General, 2016, 518, 221-230.	4.3	45
48	Bandâ€Gap Control of Zinc Sulfide: Towards an Efficient Visibleâ€Lightâ€Sensitive Photocatalyst. ChemPhysChem, 2015, 16, 2397-2402.	2.1	33
49	The Unique Structural Evolution of the O3â€Phase Na_{2/3}Fe_{2/3}Mn_{1/3}O₂ during High Rate Charge/Discharge: A Sodiumâ€Centred Perspective. Advanced Functional Materials, 2015, 25, 4994-5005.	14.9	66
50	Electrospinning of TiO2 nanofibers: the influence of Li and Ca doping and vacuum calcination. Materials Letters, 2015, 139, 31-34.	2.6	10
51	Band Gap Modification of ZnO and ZnS through Solid Solution Formation for Applications in Photocatalysis. Energy Procedia, 2014, 60, 32-36.	1.8	15
52	Towards new binary compounds: Synthesis of amorphous phosphorus carbide by pulsed laser deposition. Journal of Solid State Chemistry, 2013, 198, 466-474.	2.9	53
53	GaPâ€ZnS Solid Solutions: Semiconductors for Efficient Visible Light Absorption and Emission. Advanced Materials, 2013, 25, 2989-2993.	21.0	22
54	Ultraâ€Flexible Boronâ€Oxygen 3D Solidâ€State Networks. Advanced Functional Materials, 2013, 23, 5887-5892.	14.9	7

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55	Generation of microdischarges in diamond substrates. Plasma Sources Science and Technology, 2012, 21, 022001.	3.1	4
56	Improving density functional theory for crystal polymorph energetics. Physical Chemistry Chemical Physics, 2012, 14, 7739.	2.8	32
57	Ternary silicon germanium nitrides: A class of tunable band gap materials. Physical Review B, 2011, 84, .	3.2	11
58	Predicting crystal structures ab initio: group 14 nitrides and phosphides. Physical Chemistry Chemical Physics, 2010, 12, 8620.	2.8	12
59	Carbon nitride:<i>Ab initio</i>investigation of carbon-rich phases. Physical Review B, 2009, 80, .	3.2	48
60	Solid phases of phosphorus carbide: An<i>ab initio</i>study. Physical Review B, 2009, 79, .	3.2	37
61	Energy Minimization of Single-Walled Titanium Oxide Nanotubes. ACS Nano, 2009, 3, 3401-3412.	14.6	19
62	Vibrational analysis of per-fluorinated-triamantane. Chemical Physics Letters, 2008, 460, 237-240.	2.6	2
63	Exploring Feasibility of Multicolored CdTe Quantum Dots for In Vitro and In Vivo Fluorescent Imaging. Journal of Nanoscience and Nanotechnology, 2008, 8, 1174-1177.	0.9	22
64	Alternative Materials and Processing Techniques for Optimized Nanostructures in Dye-Sensitized Solar Cells. Journal of Nanoscience and Nanotechnology, 2008, 8, 2230-2248.	0.9	1
65	A comparison of microwave and conventional heat treatments of nanocrystalline TiO2. Solar Energy Materials and Solar Cells, 2007, 91, 6-16.	6.2	59
66	Low temperature crystallization behavior of TiO2 derived from a solâ€"gel process. Journal of Sol-Gel Science and Technology, 2007, 42, 107-117.	2.4	15
67	TiO2 solâ€"gel blocking layers for dye-sensitized solar cells. Comptes Rendus Chimie, 2006, 9, 622-626.	0.5	104
68	Microwave processing of TiO2 blocking layers for dye-sensitized solar cells. Journal of Sol-Gel Science and Technology, 2006, 40, 45-54.	2.4	31
69	Challenges of producing TiO2 films by microwave heating. Surface and Coatings Technology, 2005, 198, 20-23.	4.8	19
70	NANOSTRUCTURED TiO2 FILMS IN DYE-SENSITIZED SOLAR CELLS. International Journal of Nanoscience, 2005, 04, 785-793.	0.7	0
71	Formation of anatase TiO2 by microwave processing. Solar Energy Materials and Solar Cells, 2004, 84, 135-143.	6.2	64
72	Structural and Chemical Analysis of Well-Crystallized Hydroxyfluorapatites.. ChemInform, 2003, 34, no.	0.0	0

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73	Influence of fluorine in the synthesis of apatites. Synthesis of solid solutions of hydroxy-fluorapatite. Biomaterials, 2003, 24, 3777-3785.	11.4	174
74	Structural and Chemical Analysis of Well-Crystallized Hydroxyfluorapatites. Journal of Physical Chemistry B, 2003, 107, 8316-8320.	2.6	75
75	ZnS-GaP Solid Solution Thin Films with Enhanced Visible-Light Photocurrent. ACS Applied Energy Materials, 0, , .	5.1	4