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	Influence of fluorine in the synthesis of apatites. Synthesis of solid solutions of hydroxy-fluorapatite. Biomaterials, 2003, 24, 3777-3785.	11.4	174
2	Optical properties of zirconia ceramics for esthetic dental restorations: A systematic review. Journal of Prosthetic Dentistry, 2018, 119, 36-46.	2.8	168
3	TiO2 solâ€“gel blocking layers for dye-sensitized solar cells. Comptes Rendus Chimie, 2006, 9, 622-626.	0.5	104
4	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
5	Structural and Chemical Analysis of Well-Crystallized Hydroxyfluorapatites. Journal of Physical Chemistry B, 2003, 107, 8316-8320.	2.6	75
6	Exploring Cu oxidation state on TiO2 and its transformation during photocatalytic hydrogen evolution. Applied Catalysis A: General, 2016, 521, 190-201.	4.3	73
7	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
8	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
9	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
10	Formation of anatase TiO2 by microwave processing. Solar Energy Materials and Solar Cells, 2004, 84, 135-143.	6.2	64
11	A comparison of microwave and conventional heat treatments of nanocrystalline TiO2. Solar Energy Materials and Solar Cells, 2007, 91, 6-16.	6.2	59
12	Manipulation of Charge Transport by Metallic V₁₃O₁₆ Decorated on Bismuth Vanadate Photoelectrochemical Catalyst. Advanced Materials, 2019, 31, e1807204.	21.0	57
13	Photogenerated charge dynamics of CdS nanorods with spatially distributed MoS2 for photocatalytic hydrogen generation. Chemical Engineering Journal, 2021, 420, 127709.	12.7	56
14	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
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	DFT study of various tungstates for photocatalytic water splitting. Physical Chemistry Chemical Physics, 2020, 22, 1727-1737.	2.8	50
17	Carbon nitride:<i>Ab initio</i>investigation of carbon-rich phases. Physical Review B, 2009, 80, .	3.2	48
18	Hydrogen evolution via glycerol photoreforming over Cuâ€“Pt nanoalloys on TiO2. Applied Catalysis A: General, 2016, 518, 221-230.	4.3	45

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19	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
20	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
21	Hybrid Solid Polymer Electrolytes with Twoâ€Dimensional Inorganic Nanofillers. Chemistry - A European Journal, 2018, 24, 18180-18203.	3.3	41
22	Light-Induced Synergistic Multidefect Sites on TiO₂/SiO₂ Composites for Catalytic Dehydrogenation. ACS Catalysis, 2019, 9, 2674-2684.	11.2	41
23	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
24	Solid phases of phosphorus carbide: An<i>ab initio</i>study. Physical Review B, 2009, 79, .	3.2	37
25	Growth mechanism of ceria nanorods by precipitation at room temperature and morphology-dependent photocatalytic performance. CrystEngComm, 2017, 19, 4766-4776.	2.6	34
26	Bandâ€Gap Control of Zinc Sulfide: Towards an Efficient Visibleâ€Lightâ€Sensitive Photocatalyst. ChemPhysChem, 2015, 16, 2397-2402.	2.1	33
27	Improving density functional theory for crystal polymorph energetics. Physical Chemistry Chemical Physics, 2012, 14, 7739.	2.8	32
28	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
29	Oxygen-deficient bismuth tungstate and bismuth oxide composite photoanode with improved photostability. Science Bulletin, 2018, 63, 990-996.	9.0	29
30	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
31	Strain engineering of oxide thin films for photocatalytic applications. Nano Energy, 2020, 72, 104732.	16.0	26
32	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
33	Planar-dependent oxygen vacancy concentrations in photocatalytic CeO₂ nanoparticles. CrystEngComm, 2018, 20, 204-212.	2.6	24
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	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
36	GaPâ€ZnS Solid Solutions: Semiconductors for Efficient Visible Light Absorption and Emission. Advanced Materials, 2013, 25, 2989-2993.	21.0	22

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37	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
38	DFT Study of Methanol Adsorption on Defectâ€Free CeO₂ Lowâ€Index Surfaces. ChemPhysChem, 2019, 20, 2074-2081.	2.1	20
39	Challenges of producing TiO2 films by microwave heating. Surface and Coatings Technology, 2005, 198, 20-23.	4.8	19
40	Energy Minimization of Single-Walled Titanium Oxide Nanotubes. ACS Nano, 2009, 3, 3401-3412.	14.6	19
41	A screen-printed Ag/AgCl reference electrode with long-term stability for electroanalytical applications. Electrochimica Acta, 2021, 393, 139043.	5.2	18
42	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
43	Band Gap Modification of ZnO and ZnS through Solid Solution Formation for Applications in Photocatalysis. Energy Procedia, 2014, 60, 32-36.	1.8	15
44	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
45	Defective Sn-Zn perovskites through bio-directed routes for modulating CO2RR. Nano Energy, 2022, 101, 107593.	16.0	14
46	Predicting crystal structures ab initio: group 14 nitrides and phosphides. Physical Chemistry Chemical Physics, 2010, 12, 8620.	2.8	12
47	Ternary silicon germanium nitrides: A class of tunable band gap materials. Physical Review B, 2011, 84, .	3.2	11
48	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
49	Physical Aging Investigations of a Spirobisindane-Locked Polymer of Intrinsic Microporosity. , 2020, 2, 993-998.		11
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	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
52	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
53	Cu2O photocatalyst: Activity enhancement driven by concave surface. Materials Today Energy, 2020, 16, 100422.	4.7	9
54	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

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55	Optical Tuning of Resistance Switching in Polycrystalline Gallium Phosphide Thin Films. Journal of Physical Chemistry Letters, 2021, 12, 2327-2333.	4.6	8
56	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
57	Ultraâ€Flexible Boronâ€Oxygen 3D Solidâ€State Networks. Advanced Functional Materials, 2013, 23, 5887-5892.	14.9	7
58	Localised nanoscale resistive switching in GaP thin films with low power consumption. Journal of Materials Chemistry C, 2017, 5, 2153-2159.	5.5	7
59	GaPâ€"ZnS Multilayer Films: Visible-Light Photoelectrodes by Interface Engineering. Journal of Physical Chemistry C, 2019, 123, 3336-3342.	3.1	7
60	Mixing Thermodynamics and Photocatalytic Properties of GaPâ€"ZnS solid solutions. Advanced Theory and Simulations, 2019, 2, 1800146.	2.8	7
61	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
62	Adventures in boron chemistry â€" the prediction of novel ultra-flexible boron oxide frameworks. Faraday Discussions, 2018, 211, 569-591.	3.2	5
63	Interfacial origins of visible-light photocatalytic activity in ZnSâ€"GaP multilayers. Acta Materialia, 2019, 181, 139-147.	7.9	5
64	Energy landscapes of perfect and defective solids: from structure prediction to ion conduction. Theoretical Chemistry Accounts, 2021, 140, 1.	1.4	5
65	Generation of microdischarges in diamond substrates. Plasma Sources Science and Technology, 2012, 21, 022001.	3.1	4
66	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
67	ZnS-GaP Solid Solution Thin Films with Enhanced Visible-Light Photocurrent. ACS Applied Energy Materials, 0, , .	5.1	4
68	Designing 3d metal oxides: selecting optimal density functionals for strongly correlated materials. Physical Chemistry Chemical Physics, 2022, 24, 14119-14139.	2.8	4
69	Calciteâ€"magnesite solid solutions: using genetic algorithms to understand non-ideality. Physics and Chemistry of Minerals, 2019, 46, 193-202.	0.8	3
70	Vibrational analysis of per-fluorinated-triamantane. Chemical Physics Letters, 2008, 460, 237-240.	2.6	2
71	Dynamic single-site polysulfide immobilization in long-range disorder Cu-MOFs. Chemical Communications, 2020, 56, 10074-10077.	4.1	1
72	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

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73	Structural and Chemical Analysis of Well-Crystallized Hydroxyfluorapatites.. ChemInform, 2003, 34, no.	0.0	0
74	NANOSTRUCTURED TiO2 FILMS IN DYE-SENSITIZED SOLAR CELLS. International Journal of Nanoscience, 2005, 04, 785-793.	0.7	0
75	Composite Ag/AgCl/KCl Screen-Printed Reference Electrode. ECS Meeting Abstracts, 2020, MA2020-01, 2568-2568.	0.0	0