

# Judy N Hart

## List of Publications by Year in descending order

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75  
papers

2,266  
citations

185998

28  
h-index

233125

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. <i>Biomaterials</i> , 2003, 24, 3777-3785.	5.7	174
2	Optical properties of zirconia ceramics for esthetic dental restorations: A systematic review. <i>Journal of Prosthetic Dentistry</i> , 2018, 119, 36-46.	1.1	168
3	TiO <sub>2</sub> sol-gel blocking layers for dye-sensitized solar cells. <i>Comptes Rendus Chimie</i> , 2006, 9, 622-626.	0.2	104
4	A pulse electrodeposited amorphous tunnel layer stabilises Cu <sub>2</sub> O for efficient photoelectrochemical water splitting under visible-light irradiation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5638-5646.	5.2	78
5	Structural and Chemical Analysis of Well-Crystallized Hydroxyfluorapatites. <i>Journal of Physical Chemistry B</i> , 2003, 107, 8316-8320.	1.2	75
6	Exploring Cu oxidation state on TiO <sub>2</sub> and its transformation during photocatalytic hydrogen evolution. <i>Applied Catalysis A: General</i> , 2016, 521, 190-201.	2.2	73
7	Defect engineering of ZnS thin films for photoelectrochemical water-splitting under visible light. <i>Solar Energy Materials and Solar Cells</i> , 2016, 153, 179-185.	3.0	69
8	Light-Induced Formation of MoO <sub>x</sub> /S <sub>y</sub> Clusters on CdS Nanorods as Cocatalyst for Enhanced Hydrogen Evolution. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 8324-8332.	4.0	67
9	The Unique Structural Evolution of the O <sub>3</sub> Phase Na <sub>2/3</sub> Fe <sub>2/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> during High Rate Charge/Discharge: A Sodium-Centred Perspective. <i>Advanced Functional Materials</i> , 2015, 25, 4994-5005.	7.8	66
10	Formation of anatase TiO <sub>2</sub> by microwave processing. <i>Solar Energy Materials and Solar Cells</i> , 2004, 84, 135-143.	3.0	64
11	A comparison of microwave and conventional heat treatments of nanocrystalline TiO <sub>2</sub> . <i>Solar Energy Materials and Solar Cells</i> , 2007, 91, 6-16.	3.0	59
12	Manipulation of Charge Transport by Metallic V <sub>13</sub> O <sub>16</sub> Decorated on Bismuth Vanadate Photoelectrochemical Catalyst. <i>Advanced Materials</i> , 2019, 31, e1807204.	11.1	57
13	Photogenerated charge dynamics of CdS nanorods with spatially distributed MoS <sub>2</sub> for photocatalytic hydrogen generation. <i>Chemical Engineering Journal</i> , 2021, 420, 127709.	6.6	56
14	Towards new binary compounds: Synthesis of amorphous phosphorus carbide by pulsed laser deposition. <i>Journal of Solid State Chemistry</i> , 2013, 198, 466-474.	1.4	53
15	Uncovering Atomic-Scale Stability and Reactivity in Engineered Zinc Oxide Electrocatalysts for Controllable Syngas Production. <i>Advanced Energy Materials</i> , 2020, 10, 2001381.	10.2	51
16	DFT study of various tungstates for photocatalytic water splitting. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 1727-1737.	1.3	50
17	Carbon nitride: <i>Ab initio</i> investigation of carbon-rich phases. <i>Physical Review B</i> , 2009, 80, .	1.1	48
18	Hydrogen evolution via glycerol photoreforming over Cu-Pt nanoalloys on TiO <sub>2</sub> . <i>Applied Catalysis A: General</i> , 2016, 518, 221-230.	2.2	45

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19	Elucidating the impact of A-site cation change on photocatalytic H <sub>2</sub> and O <sub>2</sub> evolution activities of perovskite-type LnTaO <sub>3</sub> (Ln = La and Pr). <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 22210-22220.	1.3	44
20	Improving the Photo-Oxidative Performance of Bi <sub>2</sub> MoO <sub>6</sub> by Harnessing the Synergy between Spatial Charge Separation and Rational Co-Catalyst Deposition. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 9342-9352.	4.0	44
21	Hybrid Solid Polymer Electrolytes with Two-Dimensional Inorganic Nanofillers. <i>Chemistry - A European Journal</i> , 2018, 24, 18180-18203.	1.7	41
22	Light-Induced Synergistic Multidefect Sites on TiO <sub>2</sub> /SiO <sub>2</sub> Composites for Catalytic Dehydrogenation. <i>ACS Catalysis</i> , 2019, 9, 2674-2684.	5.5	41
23	Accelerating Electron Transfer and Tuning Product Selectivity Through Surficial Vacancy Engineering on CZTS/CdS for Photoelectrochemical CO <sub>2</sub> Reduction. <i>Small</i> , 2021, 17, e2100496.	5.2	40
24	Solid phases of phosphorus carbide: An <i>ab initio</i> study. <i>Physical Review B</i> , 2009, 79, .	1.1	37
25	Growth mechanism of ceria nanorods by precipitation at room temperature and morphology-dependent photocatalytic performance. <i>CrystEngComm</i> , 2017, 19, 4766-4776.	1.3	34
26	Band-Gap Control of Zinc Sulfide: Towards an Efficient Visible-Light-Sensitive Photocatalyst. <i>ChemPhysChem</i> , 2015, 16, 2397-2402.	1.0	33
27	Improving density functional theory for crystal polymorph energetics. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 7739.	1.3	32
28	Microwave processing of TiO <sub>2</sub> blocking layers for dye-sensitized solar cells. <i>Journal of Sol-Gel Science and Technology</i> , 2006, 40, 45-54.	1.1	31
29	Oxygen-deficient bismuth tungstate and bismuth oxide composite photoanode with improved photostability. <i>Science Bulletin</i> , 2018, 63, 990-996.	4.3	29
30	ZnS Thin Films for Visible-Light Active Photoelectrodes: Effect of Film Morphology and Crystal Structure. <i>Crystal Growth and Design</i> , 2016, 16, 2461-2465.	1.4	27
31	Strain engineering of oxide thin films for photocatalytic applications. <i>Nano Energy</i> , 2020, 72, 104732.	8.2	26
32	Enhancing bimetallic synergy with light: the effect of UV light pre-treatment on catalytic oxygen activation by bimetallic Au-Pt nanoparticles on a TiO <sub>2</sub> support. <i>Catalysis Science and Technology</i> , 2017, 7, 4792-4805.	2.1	24
33	Planar-dependent oxygen vacancy concentrations in photocatalytic CeO <sub>2</sub> nanoparticles. <i>CrystEngComm</i> , 2018, 20, 204-212.	1.3	24
34	Critical role of {002} preferred orientation on electronic band structure of electrodeposited monoclinic WO <sub>3</sub> thin films. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2224-2236.	2.5	24
35	Exploring Feasibility of Multicolored CdTe Quantum Dots for In Vitro and In Vivo Fluorescent Imaging. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 1174-1177.	0.9	22
36	Ga-ZnS Solid Solutions: Semiconductors for Efficient Visible Light Absorption and Emission. <i>Advanced Materials</i> , 2013, 25, 2989-2993.	11.1	22

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37	Density Functional Theory Investigation of the Biocatalytic Mechanisms of pH-Driven Biomimetic Behavior in CeO <sub>2</sub> . ACS Applied Materials & Interfaces, 2022, 14, 11937-11949.	4.0	21
38	DFT Study of Methanol Adsorption on Defect-Free CeO <sub>2</sub> Low-Index Surfaces. ChemPhysChem, 2019, 20, 2074-2081.	1.0	20
39	Challenges of producing TiO <sub>2</sub> films by microwave heating. Surface and Coatings Technology, 2005, 198, 20-23.	2.2	19
40	Energy Minimization of Single-Walled Titanium Oxide Nanotubes. ACS Nano, 2009, 3, 3401-3412.	7.3	19
41	A screen-printed Ag/AgCl reference electrode with long-term stability for electroanalytical applications. Electrochimica Acta, 2021, 393, 139043.	2.6	18
42	Low temperature crystallization behavior of TiO <sub>2</sub> derived from a sol-gel process. Journal of Sol-Gel Science and Technology, 2007, 42, 107-117.	1.1	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/TiO <sub>2</sub> . Catalysis Science and Technology, 2016, 6, 8188-8199.	2.1	14
45	Defective Sn-Zn perovskites through bio-directed routes for modulating CO <sub>2</sub> RR. Nano Energy, 2022, 101, 107593.	8.2	14
46	Predicting crystal structures ab initio: group 14 nitrides and phosphides. Physical Chemistry Chemical Physics, 2010, 12, 8620.	1.3	12
47	Ternary silicon germanium nitrides: A class of tunable band gap materials. Physical Review B, 2011, 84, .	1.1	11
48	Mullite-glass and mullite-mullite interfaces: Analysis by molecular dynamics (MD) simulation and high-resolution TEM. Journal of the American Ceramic Society, 2018, 101, 428-439.	1.9	11
49	Physical Aging Investigations of a Spirobisindane-Locked Polymer of Intrinsic Microporosity. , 2020, 2, 993-998.		11
50	Electrospinning of TiO <sub>2</sub> nanofibers: the influence of Li and Ca doping and vacuum calcination. Materials Letters, 2015, 139, 31-34.	1.3	10
51	Enhanced Photovoltaic Effect in Fe-Doped (Bi, Na) TiO <sub>3</sub> -BaTiO <sub>3</sub> Ferroelectric Ceramics. International Journal of Applied Ceramic Technology, 2016, 13, 896-903.	1.1	9
52	Hunting the elusive shallow n-type donor - An ab initio study of Li and N co-doped diamond. Carbon, 2021, 171, 857-868.	5.4	9
53	Cu <sub>2</sub> O photocatalyst: Activity enhancement driven by concave surface. Materials Today Energy, 2020, 16, 100422.	2.5	9
54	Enhancement of CeO <sub>2</sub> Silanization by Spontaneous Breakage of Si-O Bonds through Facet Engineering. Journal of Physical Chemistry C, 2020, 124, 2644-2655.	1.5	8

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55	Optical Tuning of Resistance Switching in Polycrystalline Gallium Phosphide Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2327-2333.	2.1	8
56	Enhancement of oxygen exchanging capability by loading a small amount of ruthenium over ceria-zirconia on dry reforming of methane. <i>Advanced Powder Technology</i> , 2022, 33, 103407.	2.0	8
57	Ultra-Flexible Boron-Oxygen 3D Solid-State Networks. <i>Advanced Functional Materials</i> , 2013, 23, 5887-5892.	7.8	7
58	Localised nanoscale resistive switching in GaP thin films with low power consumption. <i>Journal of Materials Chemistry C</i> , 2017, 5, 2153-2159.	2.7	7
59	Ga-ZnS Multilayer Films: Visible-Light Photoelectrodes by Interface Engineering. <i>Journal of Physical Chemistry C</i> , 2019, 123, 3336-3342.	1.5	7
60	Mixing Thermodynamics and Photocatalytic Properties of Ga-ZnS solid solutions. <i>Advanced Theory and Simulations</i> , 2019, 2, 1800146.	1.3	7
61	Graphene and novel graphitic ZnO and ZnS nanofilms: the energy landscape, non-stoichiometry and water dissociation. <i>Nanoscale Advances</i> , 2019, 1, 1924-1935.	2.2	6
62	Adventures in boron chemistry – the prediction of novel ultra-flexible boron oxide frameworks. <i>Faraday Discussions</i> , 2018, 211, 569-591.	1.6	5
63	Interfacial origins of visible-light photocatalytic activity in Zn-GaP multilayers. <i>Acta Materialia</i> , 2019, 181, 139-147.	3.8	5
64	Energy landscapes of perfect and defective solids: from structure prediction to ion conduction. <i>Theoretical Chemistry Accounts</i> , 2021, 140, 1.	0.5	5
65	Generation of microdischarges in diamond substrates. <i>Plasma Sources Science and Technology</i> , 2012, 21, 022001.	1.3	4
66	Interfacial Reactions Between BaAl <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> and Molten Al Alloy at 1423 K and 1523 K (1150 °C and 1250 °C). <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016, 47, 1753-1764.	1.0	4
67	ZnS-GaP Solid Solution Thin Films with Enhanced Visible-Light Photocurrent. <i>ACS Applied Energy Materials</i> , 0, , .	2.5	4
68	Designing 3d metal oxides: selecting optimal density functionals for strongly correlated materials. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 14119-14139.	1.3	4
69	Calcite-magnesite solid solutions: using genetic algorithms to understand non-ideality. <i>Physics and Chemistry of Minerals</i> , 2019, 46, 193-202.	0.3	3
70	Vibrational analysis of per-fluorinated-triamantane. <i>Chemical Physics Letters</i> , 2008, 460, 237-240.	1.2	2
71	Dynamic single-site polysulfide immobilization in long-range disorder Cu-MOFs. <i>Chemical Communications</i> , 2020, 56, 10074-10077.	2.2	1
72	Alternative Materials and Processing Techniques for Optimized Nanostructures in Dye-Sensitized Solar Cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 2230-2248.	0.9	1

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73	Structural and Chemical Analysis of Well-Crystallized Hydroxyfluorapatites.. ChemInform, 2003, 34, no.	0.1	0
74	NANOSTRUCTURED TiO <sub>2</sub> FILMS IN DYE-SENSITIZED SOLAR CELLS. International Journal of Nanoscience, 2005, 04, 785-793.	0.4	0
75	Composite Ag/AgCl/KCl Screen-Printed Reference Electrode. ECS Meeting Abstracts, 2020, MA2020-01, 2568-2568.	0.0	0