

Robert N Barnett

List of Publications by Year in descending order

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33
papers

2,939
citations

331259

21
h-index

360668

35
g-index

35
all docs

35
docs citations

35
times ranked

3176
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrastable silver nanoparticles. <i>Nature</i> , 2013, 501, 399-402.	13.7	1,023
2	Born-Oppenheimer molecular-dynamics simulations of finite systems: Structure and dynamics of (H ₂ O) ₂ . <i>Physical Review B</i> , 1993, 48, 2081-2097.	1.1	551
3	Metal-Semiconductor Nanocontacts: Silicon Nanowires. <i>Physical Review Letters</i> , 2000, 85, 1958-1961.	2.9	188
4	Gold Nanowires and Their Chemical Modifications. <i>Journal of Physical Chemistry B</i> , 1999, 103, 8814-8816.	1.2	135
5	Hydrogen-bonded structure and mechanical chiral response of a silver nanoparticle superlattice. <i>Nature Materials</i> , 2014, 13, 807-811.	13.3	128
6	Nanowire Gold Chains: Formation Mechanisms and Conductance. <i>Journal of Physical Chemistry B</i> , 2000, 104, 9063-9066.	1.2	106
7	Selective C-H Bond Cleavage in Methane by Small Gold Clusters. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13406-13410.	7.2	71
8	Hydrogen Welding and Hydrogen Switches in a Monatomic Gold Nanowire. <i>Nano Letters</i> , 2004, 4, 1845-1852.	4.5	66
9	Temperature-Tunable Selective Methane Catalysis on Au ₂ ⁺ : From Cryogenic Partial Oxidation Yielding Formaldehyde to Cold Ethylene Production. <i>Journal of Physical Chemistry C</i> , 2011, 115, 6788-6795.	1.5	57
10	Low-Temperature CO Oxidation Catalyzed by Free Palladium Clusters: Similarities and Differences to Pd Surfaces and Supported Particles. <i>ACS Catalysis</i> , 2015, 5, 2275-2289.	5.5	47
11	Structure, collective hydrogen transfer, and formation of Si(OH) ₄ in SiO ₂ ·(H ₂ O) _n clusters. <i>Journal of Chemical Physics</i> , 2002, 116, 9300-9304.	1.2	41
12	Confirmation of a de novo structure prediction for an atomically precise monolayer-coated silver nanoparticle. <i>Science Advances</i> , 2016, 2, e1601609.	4.7	39
13	Dielectron Attachment and Hydrogen Evolution Reaction in Water Clusters. <i>Journal of Physical Chemistry A</i> , 2011, 115, 7378-7391.	1.1	37
14	M ₄ Ag ₄₄ (p-MBA) ₃₀ Molecular Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2015, 119, 11238-11249.	1.5	37
15	M ₃ Ag ₁₇ (SPh) ₁₂ Nanoparticles and Their Structure Prediction. <i>Journal of the American Chemical Society</i> , 2015, 137, 11550-11553.	6.6	33
16	Oxidative Thymine Mutation in DNA: Water-Wire-Mediated Proton-Coupled Electron Transfer. <i>Journal of the American Chemical Society</i> , 2013, 135, 3904-3914.	6.6	31
17	Selective C-H Bond Cleavage in Methane by Small Gold Clusters. <i>Angewandte Chemie</i> , 2017, 129, 13591-13595.	1.6	31
18	Interaction of Iron-Sulfur Clusters with N ₂ : Biomimetic Systems in the Gas Phase. <i>Journal of Physical Chemistry C</i> , 2016, 120, 12549-12558.	1.5	30

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19	The Interaction of Water with Free $Mn_4O_4^{+}$ Clusters: Deprotonation and Adsorption-Induced Structural Transformations. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15113-15117.	7.2	24
20	Dynamics, Spectra, and Relaxation Phenomena of Excess Electrons in Clusters. <i>Israel Journal of Chemistry</i> , 1990, 30, 85-105.	1.0	22
21	Water Deprotonation via Oxo-Bridge Hydroxylation and ^{18}O -Exchange in Free Tetra-Manganese Oxide Clusters. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10881-10887.	1.5	22
22	Thermal Dehydrogenation of Methane Enhanced by $1/2$ -Oxo Ligands in Tantalum Cluster Cations $[Ta_xO]^+$, $x = 4, 5$. <i>Journal of Physical Chemistry C</i> , 2018, 122, 25628-25637.	1.5	16
23	Infrared Spectroscopy of Gas-Phase $Mn_xO_y(CO)_z^{+}$ Complexes. <i>Journal of Physical Chemistry A</i> , 2020, 124, 1561-1566.	1.1	13
24	A Gas-Phase $Ca_nMn_4^{+}O_4^{+}$ Cluster Model for the Oxygen-Evolving Complex of Photosystem II. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 8504-8509.	7.2	10
25	Carbide Dihydrides: Carbonaceous Species Identified in Ta_4^{+} -Mediated Methane Dehydrogenation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 23631-23635.	7.2	10
26	A Gas-Phase $Ca_nMn_4^{+}O_4^{+}$ Cluster Model for the Oxygen-Evolving Complex of Photosystem II. <i>Angewandte Chemie</i> , 2019, 131, 8592-8597.	1.6	9
27	Room-Temperature Methane Activation Mediated by Free Tantalum Cluster Cations: Size-by-Size Reactivity. <i>Journal of Physical Chemistry A</i> , 2021, 125, 5289-5302.	1.1	9
28	Size, Stoichiometry, Dimensionality, and Ca Doping of Manganese Oxide-Based Water Oxidation Clusters: An Oxy/Hydroxy Mechanism for Oxygen-Oxygen Coupling. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 5248-5255.	2.1	5
29	Energetic Stabilization of Carboxylic Acid Conformers by Manganese Atoms and Clusters. <i>Journal of Physical Chemistry A</i> , 2020, 124, 4990-4997.	1.1	3
30	Oxygen Sensitivity of Free Nonligated Iron-Sulfur Clusters. <i>Journal of Physical Chemistry C</i> , 2019, 123, 27681-27689.	1.5	2
31	Cluster Size Dependent Interaction of Free Manganese Oxide Clusters with Acetic Acid and Methyl Acetate. <i>Journal of Physical Chemistry A</i> , 2021, 125, 4435-4445.	1.1	2
32	Carbid-Dihydride: kohlenstoffhaltige Spezies identifiziert in der Ta_4^{+} -vermittelten Methandehydrierung. <i>Angewandte Chemie</i> , 2020, 132, 23838-23842.	1.6	2
33	Structural and transport properties of Nb nanowires. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007, 204, 1712-1720.	0.8	1