

Gaurab Ganguly

List of Publications by Year in descending order

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43
papers

1,279
citations

471371

17
h-index

360920

35
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47
all docs

47
docs citations

47
times ranked

1217
citing authors

#	ARTICLE	IF	CITATIONS
1	Catalyzed Dehydrogenation of Ammonia-Borane by Iridium Dihydrogen Pincer Complex Differs from Ethane Dehydrogenation. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 8153-8156.	7.2	194
2	The Role of Free N-Heterocyclic Carbene (NHC) in the Catalytic Dehydrogenation of Ammonia-Borane in the Nickel NHC System. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2201-2205.	7.2	115
3	Oligomerization and Autocatalysis of NH_2BH_2 with Ammonia-Borane. <i>Inorganic Chemistry</i> , 2009, 48, 1069-1081.	1.9	108
4	Combining Protons and Hydrides by Homogeneous Catalysis for Controlling the Release of Hydrogen from Ammonia-Borane: Present Status and Challenges. <i>ACS Catalysis</i> , 2016, 6, 7907-7934.	5.5	103
5	Catalytic Dehydrogenation of Ammonia Borane at Ni Monocarbene and Dicarbene Catalysts. <i>Inorganic Chemistry</i> , 2009, 48, 5418-5433.	1.9	72
6	Theoretical Studies on the Mechanism of Homogeneous Catalytic Olefin Hydrogenation and Amine-Borane Dehydrogenation by a Versatile Boryl-Ligand-Based Cobalt Catalyst. <i>ACS Catalysis</i> , 2015, 5, 2754-2769.	5.5	55
7	Changing Lanes from Concerted to Stepwise Hydrogenation: The Reduction Mechanism of Frustrated Lewis Acid-Base Pair Trapped CO_2 to Methanol by Ammonia-Borane. <i>Chemistry - A European Journal</i> , 2011, 17, 435-439.	1.7	48
8	Unraveling the Crucial Role of Metal-Free Catalysis in Borazine and Polyborazylene Formation in Transition-Metal-Catalyzed Ammonia-Borane Dehydrogenation. <i>ACS Catalysis</i> , 2015, 5, 3478-3493.	5.5	47
9	Unfolding the crucial role of a nucleophile in Ziegler-Natta type Ir catalyzed polyaminoborane formation. <i>Chemical Communications</i> , 2014, 50, 5919.	2.2	38
10	The Role of Solvent and of Species Generated in Situ on the Kinetic Acceleration of Aminoborane Oligomerization. <i>Chemistry - A European Journal</i> , 2013, 19, 5812-5817.	1.7	34
11	A Mononuclear Nonheme Iron(IV)-Oxo Complex of a Substituted N4Py Ligand: Effect of Ligand Field on Oxygen Atom Transfer and C-H Bond Cleavage Reactivity. <i>Inorganic Chemistry</i> , 2019, 58, 1862-1876.	1.9	32
12	Ab Initio Analysis of Metal-Ligand Bonding in $\text{An}(\text{COT})_2$ with $\text{An}=\text{Th}, \text{U}$ in Their Ground and Core-Excited States. <i>Chemistry - A European Journal</i> , 2020, 26, 1776-1788.	1.7	23
13	Breaking the Myth of the Recalcitrant Chemisorbed Hydrogens on Boron Nitride Nanotubes: A Theoretical Perspective. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 4152-4156.	7.2	22
14	Mechanistic Details of Ru-Bis(pyridyl)borate Complex Catalyzed Dehydrogenation of Ammonia-Borane: Role of the Pendant Boron Ligand in Catalysis. <i>ACS Catalysis</i> , 2016, 6, 4068-4080.	5.5	20
15	Designing Efficient Solar-Thermal Fuels with $[(9,10)\text{Anthracene}]$ Cyclophanes: A Theoretical Perspective. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 328-334.	2.1	20
16	In Pursuit of Sustainable Hydrogen Storage with Boron-Nitride Fullerene as the Storage Medium. <i>ChemSusChem</i> , 2016, 9, 1386-1391.	3.6	18
17	Frustrated Lewis Acid-Base-Pair-Catalyzed Amine-Borane Dehydrogenation. <i>Inorganic Chemistry</i> , 2020, 59, 1046-1056.	1.9	17
18	Theoretical Investigation on the Chemistry of Entrapment of the Elusive Aminoborane ($\text{H}_2\text{Ni}^{3/4}\text{BH}_2$) Molecule. <i>Chemistry - A European Journal</i> , 2015, 21, 6340-6345.	1.7	16

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19	Theoretical Investigations on the Mechanistic Aspects of O ₂ Activation by a Biomimetic Dinitrosyl Iron Complex. <i>Chemistry - A European Journal</i> , 2018, 24, 3330-3339.	1.7	16
20	Insight into the Electronic Structure of Formal Lanthanide(II) Complexes using Magnetic Circular Dichroism Spectroscopy. <i>Organometallics</i> , 2019, 38, 3124-3131.	1.1	16
21	Exploring the Crucial Role of Solvation on the Viability of Sustainable Hydrogen Storage in BN-fullerene: A Combined DFT and Ab Initio Molecular Dynamics Investigation. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 9808-9821.	3.2	15
22	Deciphering the cryptic role of a catalytic electron in a photochemical bond dissociation using excited state aromaticity markers. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 25308-25314.	1.3	14
23	Ammonia-Borane Dehydrogenation by Means of an Unexpected Pentacoordinate Boron Species: Insights from Density Functional and Molecular Dynamics Studies. <i>Chemistry - A European Journal</i> , 2013, 19, 17673-17678.	1.7	13
24	Designing an Effective Metal-Free Lewis Acid Catalyst for Ammonia-Borane Dehydrogenation: A DFT Investigation on Triarylboranes. <i>ChemCatChem</i> , 2017, 9, 3870-3879.	1.8	13
25	Mono- and dinuclear oxidovanadium(ν) complexes of an amine-bis(phenolate) ligand with bromo-peroxidase activities: synthesis, characterization, catalytic, kinetic and computational studies. <i>Dalton Transactions</i> , 2018, 47, 2799-2809.	1.6	12
26	Unearthing the Mechanism of Prebiotic Nitrile Bond Reduction in Hydrogen Cyanide through a Curious Association of Two Molecular Radical Anions. <i>Chemistry - A European Journal</i> , 2014, 20, 6348-6357.	1.7	11
27	Computational design of an Iridium based catalyst for releasing H ₂ from hydrogenated BN nanotubes. <i>Chemical Communications</i> , 2015, 51, 10532-10535.	2.2	11
28	Cis-Trans Conformational Analysis of $\hat{\nu}$ -Azaproline in Peptides. <i>Journal of Organic Chemistry</i> , 2015, 80, 10585-10604.	1.7	11
29	Photochemical Hydrogenation of CO ₂ to CH ₃ OH and Pyridine to 1,2-Dihydropyridine Using Plasmon-Facilitated Chemisorbed Hydrogen on Au Surface: Theoretical Perspective. <i>Journal of Physical Chemistry C</i> , 2017, 121, 15326-15332.	1.5	10
30	Enhanced 5f- $\hat{\nu}$ bonding in [U(C ₇ H ₇) ₂] $\hat{\nu}$: C K-edge XAS, magnetism, and ab initio calculations. <i>Chemical Communications</i> , 2021, 57, 9562-9565.	2.2	10
31	A Metal-Free Strategy to Release Chemisorbed H ₂ from Hydrogenated Boron Nitride Nanotubes. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 12430-12435.	7.2	9
32	Theoretical Insights on the Effects of Mechanical Interlocking of Secondary Amines with Polyether Macrocycles for Frustrated Lewis Pair Type Hydrogen Activation. <i>Chemistry - A European Journal</i> , 2013, 19, 11541-11546.	1.7	7
33	Understanding the Role of Aromaticity and Conformational Changes in Bond Dissociation Processes of Photo-Protecting Groups. <i>Journal of Physical Chemistry A</i> , 2020, 124, 3976-3983.	1.1	7
34	The curious saga of dehydrogenation/hydrogenation for chemical hydrogen storage: a mechanistic perspective. <i>Chemical Communications</i> , 2022, 58, 1672-1684.	2.2	7
35	A Serendipitous Rendezvous with a Four-Center Two-Electron Bonded Intermediate in the Aerial Oxidation of Hydrazine. <i>Chemistry - A European Journal</i> , 2016, 22, 1216-1222.	1.7	6
36	Unraveling the stability of cyclobutadiene complexes using aromaticity markers. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 16005-16012.	1.3	6

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37	SeD radical as a probe for the measurement of the time variation of the fine-structure constant and proton-to-electron mass ratio. Physical Review A, 2014, 90, .	1.0	4
38	Understanding the Unexpected Product Distribution in the Aerial Oxidation of Carbene-Stabilized Diphosphorus Complex. Chemistry - A European Journal, 2018, 24, 4350-4360.	1.7	4
39	A Benzoxazole-Based Probe for the Sensitive Detection of Hydrogen Sulfide: Kinetic and Transition-State Studies and In Vitro Application in HepG2 Cells. ChemistrySelect, 2018, 3, 7283-7290.	0.7	4
40	Ab Initio Study of Vibronic and Magnetic 5f-to-5f and Dipole-Allowed 5f-to-6d and Charge-Transfer Transitions in [UX ₆] ⁿ⁺ (X = Cl, Br; n = 1, 2). Journal of Chemical Theory and Computation, 2020, 16, 5189-5202.	2.3	4
41	Understanding the Role of Solvents and Spin-Orbit Coupling in an Oxygen-Assisted S N 2-Type Oxidative Transmetalation Reaction. Chemistry - A European Journal, 2019, 25, 16606-16616.	1.7	2
42	Near-infrared C-term MCD spectroscopy of octahedral uranium(v) complexes. Dalton Transactions, 2021, 50, 5483-5492.	1.6	2
43	Frontispiece: Ab Initio Analysis of Metal-Ligand Bonding in An(COT) ₂ with An=Th, U in Their Ground and Core-Excited States. Chemistry - A European Journal, 2020, 26, .	1.7	0