

Djamaladdin G Musaev

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

259
papers

14,323
citations

66
h-index

109
g-index

264
ext. papers

15,482
ext. citations

9.2
avg, IF

6.51
L-index

#	Paper	IF	Citations
259	Unconventional mechanism and selectivity of the Pd-catalyzed C-H bond lactonization in aromatic carboxylic acid.. <i>Nature Communications</i> , 2022 , 13, 315	17.4	3
258	Light-Promoted Dearomative Cross-Coupling of Heteroarene Salts and Aryl Iodides via Nickel Catalysis. <i>ACS Catalysis</i> , 2022 , 12, 1818-1829	13.1	2
257	Computational Study of Key Mechanistic Details for a Proposed Copper (I)-Mediated Deconstructive Fluorination of β -Protected Cyclic Amines.. <i>Topics in Catalysis</i> , 2022 , 65, 418-432	2.3	1
256	Hydrogen-Bonding as a Factor to Determine the Regioselectivity for Pd-mediated C-H Activation of Pyridine. <i>ChemCatChem</i> , 2021 , 13, 1201-1206	5.2	0
255	Key Mechanistic Features of the Silver(I)-Mediated Deconstructive Fluorination of Cyclic Amines: Multistate Reactivity versus Single-Electron Transfer. <i>Journal of the American Chemical Society</i> , 2021 , 143, 3889-3900	16.4	8
254	An All-Atom Theory of Electron Transfer at Nanocrystal/Molecule Interfaces: A Hybrid LCAO/DFT Approach. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 5116-5126	3.8	1
253	A solvent-free solid catalyst for the selective and color-indicating ambient-air removal of sulfur mustard. <i>Communications Chemistry</i> , 2021 , 4,	6.3	6
252	C-H activation. <i>Nature Reviews Methods Primers</i> , 2021 , 1,		52
251	Polyniobate Nanofibers for Decomposition of the Nerve Agent Simulant Dimethyl Chlorophosphate. <i>ACS Applied Nano Materials</i> , 2021 , 4, 5649-5654	5.6	0
250	An Active-Site Sulfonate Group Creates a Fast Water Oxidation Electrocatalyst That Exhibits High Activity in Acid. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 1540-1545	16.4	6
249	Influence of Aryl Substituents on the Alignment of Ligands in the Dirhodium Tetrakis(1,2,2-Triarylcyclopropane- carboxylate) Catalysts. <i>ChemCatChem</i> , 2021 , 13, 174-179	5.2	4
248	Pyochelin Biosynthetic Metabolites Bind Iron and Promote Growth in Demonstrating Siderophore-like Activity. <i>ACS Infectious Diseases</i> , 2021 , 7, 544-551	5.5	3
247	Sequential Norrish-Yang Cyclization and C-C Cleavage/Cross-Coupling of a [4.1.0] Fused Saturated Azacycle. <i>Journal of Organic Chemistry</i> , 2021 , 86, 12436-12442	4.2	1
246	Nanoscale TiO ₂ Protection Layer Enhances the Built-In Field and Charge Separation Performance of GaP Photoelectrodes. <i>Nano Letters</i> , 2021 , 21, 8017-8024	11.5	2
245	Tafel Slope Analyses for Homogeneous Catalytic Reactions. <i>Catalysts</i> , 2021 , 11, 87	4	1
244	Reactivity and Selectivity Controlling Factors in the Pd/Dialkylbiarylphosphine-Catalyzed C-C Cleavage/Cross-Coupling of an N-Fused Bicyclo[3.1.0]hexane-6-Hydroxy- β -Lactam. <i>Journal of the American Chemical Society</i> , 2020 , 142, 21140-21152	16.4	11
243	Mechanistic details of the cobalt-mediated dehydrogenative dimerization of aminoquinoline-directed benzamides. <i>Chemical Science</i> , 2020 , 11, 6085-6096	9.4	7

242	C-C Cleavage Approach to C-H Functionalization of Saturated Aza-Cycles. <i>ACS Catalysis</i> , 2020 , 10, 2929-2941	26
241	Metal-Organic Framework- and Polyoxometalate-Based Sorbents for the Uptake and Destruction of Chemical Warfare Agents. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 14641-14661	9.5 23
240	Roles of Base in the Pd-Catalyzed Annulative Chlorophenylene Dimerization. <i>ACS Catalysis</i> , 2020 , 10, 3059-3073	13.1 7
239	Rhodium-Stabilized Diarylcarbenes Behaving as Donor/Acceptor Carbenes. <i>ACS Catalysis</i> , 2020 , 10, 6240-6247	13.1 27
238	Multimodal Characterization of Materials and Decontamination Processes for Chemical Warfare Protection. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 14721-14738	9.5 12
237	Tailored quinones support high-turnover Pd catalysts for oxidative C-H arylation with O. <i>Science</i> , 2020 , 370, 1454-1460	33.3 16
236	Can Donor Ligands Make Pd(OAc) a Stronger Oxidant? Access to Elusive Palladium(II) Reduction Potentials and Effects of Ancillary Ligands via Palladium(II)/Hydroquinone Redox Equilibria. <i>Journal of the American Chemical Society</i> , 2020 , 142, 19678-19688	16.4 13
235	Ion-pairing in polyoxometalate chemistry: impact of fully hydrated alkali metal cations on properties of the kegglin [PWO] anion. <i>Dalton Transactions</i> , 2020 , 49, 11170-11178	4.3 0
234	Enhanced intersystem crossing of boron dipyrromethene by TEMPO radical. <i>Journal of Chemical Physics</i> , 2020 , 153, 154201	3.9 3
233	Comparison of 1,2-Diarylcyclopropanecarboxylates with 1,2,2-Triarylcyclopropanecarboxylates as Chiral Ligands for Dirhodium-Catalyzed Cyclopropanation and C-H Functionalization. <i>Journal of Organic Chemistry</i> , 2020 , 85, 12199-12211	4.2 5
232	Correlated Multimodal Approach Reveals Key Details of Nerve-Agent Decomposition by Single-Site Zr-Based Polyoxometalates. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 2295-2299	6.4 17
231	Modulating electronic coupling at the quantum dot/molecule interface by wavefunction engineering. <i>Journal of Chemical Physics</i> , 2019 , 150, 124704	3.9 2
230	Predictive Model for the [Rh ₂ (esp) ₂]-Catalyzed Intermolecular C(sp ³) _β Bond Insertion of α -Carbonyl Ester Carbenes: Interplay between Theory and Experiment. <i>ACS Catalysis</i> , 2019 , 9, 4526-4538	13.1 14
229	Effect of Carbon Dioxide on the Degradation of Chemical Warfare Agent Simulant in the Presence of Zr Metal Organic Framework MOF-808. <i>Chemistry of Materials</i> , 2019 , 31, 9904-9914	9.6 17
228	Di-Palladium Complexes are Active Catalysts for Mono-N-Protected Amino Acid-Accelerated Enantioselective C _β H Functionalization. <i>ACS Catalysis</i> , 2019 , 9, 11386-11397	13.1 15
227	Key mechanistic details of paraoxon decomposition by polyoxometalates: Critical role of para-nitro substitution. <i>Chemical Physics</i> , 2019 , 518, 30-37	2.3 7
226	A bulk adjusted linear combination of atomic orbitals (BA-LCAO) approach for nanoparticles. <i>Journal of Computational Chemistry</i> , 2019 , 40, 212-221	3.5 2
225	Understanding Regiodivergence in a Pd(II)-Mediated Site-Selective C _β H Alkynylation. <i>ACS Catalysis</i> , 2018 , 8, 4516-4527	13.1 27

224	Keiji Morokuma. <i>Journal of Physical Chemistry A</i> , 2018 , 122, 880-881	2.8	
223	Key mechanistic insights into the intramolecular C-H bond amination and double bond aziridination in sulfamate esters catalyzed by dirhodium tetracarboxylate complexes. <i>Journal of Organometallic Chemistry</i> , 2018 , 867, 183-192	2.3	11
222	Site-Selective Carbene-Induced C-H Functionalization Catalyzed by Dirhodium Tetrakis(triarylcyclopropanecarboxylate) Complexes. <i>ACS Catalysis</i> , 2018 , 8, 678-682	13.1	40
221	Impact of ambient gases on the mechanism of [CsNbO]-promoted nerve-agent decomposition. <i>Chemical Science</i> , 2018 , 9, 2147-2158	9.4	16
220	Unveiling the Role of Base and Additive in the Ullmann-Type of Arene-Aryl C-C Coupling Reaction. <i>ACS Catalysis</i> , 2018 , 8, 4829-4837	13.1	18
219	Design of catalysts for site-selective and enantioselective functionalization of non-activated primary C-H bonds. <i>Nature Chemistry</i> , 2018 , 10, 1048-1055	17.6	86
218	Generality and Strength of Transition Metal π -Effects. <i>Journal of the American Chemical Society</i> , 2018 , 140, 10612-10618	16.4	10
217	Quantum Confinement Theory of Auger-Assisted Biexciton Recombination Dynamics in Type-I and Quasi Type-II Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 18742-18750	3.8	9
216	Multi-Tasking POM Systems. <i>Frontiers in Chemistry</i> , 2018 , 6, 365	5	16
215	Synthesis of [3a,7a]-Dihydroindoles by a Tandem Arene Cyclopropanation/3,5-Sigmatropic Rearrangement Reaction. <i>Journal of Organic Chemistry</i> , 2018 , 83, 7939-7949	4.2	7
214	Buffer-Induced Acceleration and Inhibition in Polyoxometalate-Catalyzed Organophosphorus Ester Hydrolysis. <i>ACS Catalysis</i> , 2018 , 8, 7068-7076	13.1	22
213	The mechanism of directed Ni(II)-catalyzed C-H iodination with molecular iodine. <i>Chemical Science</i> , 2018 , 9, 1144-1154	9.4	31
212	Desymmetrization of cyclohexanes by site- and stereoselective C-H functionalization. <i>Nature</i> , 2018 , 564, 395-399	50.4	61
211	Mechanism of Permanganate-Promoted Dihydroxylation of Complex Diketopiperazines: Critical Roles of Counter-cation and Ion-Pairing. <i>Journal of the American Chemical Society</i> , 2018 , 140, 13375-13386	16.4	10
210	Catalyst-Controlled Selective Functionalization of Unactivated C-H Bonds in the Presence of Electronically Activated C-H Bonds. <i>Journal of the American Chemical Society</i> , 2018 , 140, 12247-12255	16.4	43
209	Comparison of Reactivity and Enantioselectivity between Chiral Bimetallic Catalysts: Bismuth-Rhodium- and Dirhodium-Catalyzed Carbene Chemistry. <i>ACS Catalysis</i> , 2018 , 8, 10676-10682	13.1	24
208	Biologically Inspired Total Synthesis of Ulbactin F, an Iron-Binding Natural Product. <i>Organic Letters</i> , 2018 , 20, 5922-5926	6.2	12
207	Tetracobalt-polyoxometalate catalysts for water oxidation: Key mechanistic details. <i>Journal of Catalysis</i> , 2017 , 350, 56-63	7.3	47

206	Mono-protected amino acid ligands stabilize dimeric palladium(ii) complexes of importance to C-H functionalization. <i>Chemical Science</i> , 2017 , 8, 5746-5756	9.4	30
205	Enantioselectivity Model for Pd-Catalyzed C-H Functionalization Mediated by the Mono-N-protected Amino Acid (MPAA) Family of Ligands. <i>ACS Catalysis</i> , 2017 , 7, 4344-4354	13.1	24
204	A Role for Pd(IV) in Catalytic Enantioselective C-H Functionalization with Monoprotected Amino Acid Ligands under Mild Conditions. <i>Journal of the American Chemical Society</i> , 2017 , 139, 9238-9245	16.4	38
203	Effects of Competitive Active-Site Ligand Binding on Proton- and Electron-Transfer Properties of the [Co ₄ (H ₂ O) ₂ (PW ₉ O ₃₄) ₂] ₁₀ Polyoxometalate Water Oxidation Catalyst. <i>Journal of Cluster Science</i> , 2017 , 28, 839-852	3	4
202	Site-selective and stereoselective functionalization of non-activated tertiary C-H bonds. <i>Nature</i> , 2017 , 551, 609-613	50.4	173
201	Cu-Catalyzed aromatic C-H imidation with -fluorobenzenesulfonimide: mechanistic details and predictive models. <i>Chemical Science</i> , 2017 , 8, 988-1001	9.4	44
200	Rh-Catalyzed C(sp ³)-H Alkylation of Enol Ethers, Enamides and Enecarbamates with Diazo Dicarboxyl Compounds. <i>Chemistry - A European Journal</i> , 2017 , 23, 1129-1135	4.8	6
199	Reaction Mechanism of Nerve-Agent Hydrolysis with the Cs ₈ Nb ₆ O ₁₉ Lindqvist Hexaniobate Catalyst. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 16822-16830	3.8	17
198	Broad-Spectrum Liquid- and Gas-Phase Decontamination of Chemical Warfare Agents by One-Dimensional Heteropolyniobates. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 7403-7	16.4	82
197	Cu-based Polyoxometalate Catalyst for Efficient Catalytic Hydrogen Evolution. <i>Inorganic Chemistry</i> , 2016 , 55, 6750-8	5.1	34
196	Rh ₂ (II,III) Catalysts with Chelating Carboxylate and Carboxamidate Supports: Electronic Structure and Nitrene Transfer Reactivity. <i>Journal of the American Chemical Society</i> , 2016 , 138, 2327-41	16.4	82
195	Enhancing photo-reduction quantum efficiency using quasi-type II core/shell quantum dots. <i>Chemical Science</i> , 2016 , 7, 4125-4133	9.4	29
194	Factors Controlling Stability and Reactivity of Dimeric Pd(II) Complexes in C-H Functionalization Catalysis. <i>ACS Catalysis</i> , 2016 , 6, 829-839	13.1	47
193	Broad-Spectrum Liquid- and Gas-Phase Decontamination of Chemical Warfare Agents by One-Dimensional Heteropolyniobates. <i>Angewandte Chemie</i> , 2016 , 128, 7529-7533	3.6	13
192	Transition Metal Substitution Effects on Metal-to-Polyoxometalate Charge Transfer. <i>Inorganic Chemistry</i> , 2016 , 55, 4308-19	5.1	19
191	Site-selective and stereoselective functionalization of unactivated C-H bonds. <i>Nature</i> , 2016 , 533, 230-4	50.4	220
190	Flexible Reaction Pocket on Bulky Diphosphine-Complex Controls Regioselectivity in para-Selective C-H Borylation of Arenes. <i>ACS Catalysis</i> , 2016 , 6, 7536-7546	13.1	52
189	Water splitting with polyoxometalate-treated photoanodes: enhancing performance through sensitizer design. <i>Chemical Science</i> , 2015 , 6, 5531-5543	9.4	58

188	Mechanistic Details of Pd(II)-Catalyzed C-H Iodination with Molecular I ₂ : Oxidative Addition vs Electrophilic Cleavage. <i>Journal of the American Chemical Society</i> , 2015 , 137, 9022-31	16.4	49
187	Decarbonylative organoboron cross-coupling of esters by nickel catalysis. <i>Nature Communications</i> , 2015 , 6, 7508	17.4	199
186	A Hybrid Quantum Mechanical Approach: Intimate Details of Electron Transfer between Type-I CdSe/ZnS Quantum Dots and an Anthraquinone Molecule. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 7651-8	3.4	23
185	Factors Impacting the Mechanism of the Mono-N-Protected Amino Acid Ligand-Assisted and Directing-Group-Mediated C-H Activation Catalyzed by Pd(II) Complex. <i>ACS Catalysis</i> , 2015 , 5, 830-840	13.1	61
184	All-inorganic networks and tetramer based on tin(II)-containing polyoxometalates: tuning structural and spectral properties with lone-pairs. <i>Journal of the American Chemical Society</i> , 2014 , 136, 12085-91	16.4	39
183	Comparative Investigations of Cp*-Based Group 9 Metal-Catalyzed Direct C-H Amination of Benzamides. <i>Organometallics</i> , 2014 , 33, 4076-4085	3.8	105
182	An Infinite Order Discrete Variable Representation of an Effective Mass Hamiltonian: Application to Exciton Wave Functions in Quantum Confined Nanostructures. <i>Journal of Chemical Theory and Computation</i> , 2014 , 10, 3409-16	6.4	3
181	Key mechanistic features of Ni-catalyzed C-H/C-O biaryl coupling of azoles and naphthalen-2-yl pivalates. <i>Journal of the American Chemical Society</i> , 2014 , 136, 14834-44	16.4	147
180	Versatile reactivity of Pd-catalysts: mechanistic features of the mono-N-protected amino acid ligand and cesium-halide base in Pd-catalyzed C-H bond functionalization. <i>Chemical Society Reviews</i> , 2014 , 43, 5009-31	58.5	129
179	Extending metal-to-polyoxometalate charge transfer lifetimes: the effect of heterometal location. <i>Chemistry - A European Journal</i> , 2014 , 20, 4297-307	4.8	29
178	A noble-metal-free, tetra-nickel polyoxotungstate catalyst for efficient photocatalytic hydrogen evolution. <i>Journal of the American Chemical Society</i> , 2014 , 136, 14015-8	16.4	165
177	An exceptionally fast homogeneous carbon-free cobalt-based water oxidation catalyst. <i>Journal of the American Chemical Society</i> , 2014 , 136, 9268-71	16.4	225
176	Can bis(imino)pyridine iron, (PDI)FeL ₁ L ₂ , complexes catalyze C-H bond functionalization?. <i>Chemical Science</i> , 2013 , 4, 3758	9.4	22
175	Visible-light-driven hydrogen evolution from water using a noble-metal-free polyoxometalate catalyst. <i>Journal of Catalysis</i> , 2013 , 307, 48-54	7.3	83
174	Understanding the reactivity of Pd(0)/PR ₃ -catalyzed intermolecular C(sp ³)-H bond arylation. <i>Journal of the American Chemical Society</i> , 2013 , 135, 14206-14	16.4	71
173	An inorganic chromophore based on a molecular oxide supported metal carbonyl cluster: [P ₂ W ₁₇ O ₆₁ {Re(CO) ₃ } ₃ {ORb(H ₂ O)}(B-OH)] ⁹⁻ . <i>Inorganic Chemistry</i> , 2013 , 52, 13490-5	5.1	23
172	Long lived charge separation in iridium(III)-photosensitized polyoxometalates: synthesis, photophysical and computational studies of organometallic redox tunable oxide assemblies. <i>Chemical Science</i> , 2013 , 4, 1737	9.4	68
171	Differentiating homogeneous and heterogeneous water oxidation catalysis: confirmation that [Co ₄ (H ₂ O) ₂ (PW ₉ O ₃₄) ₂] ¹⁰⁻ is a molecular water oxidation catalyst. <i>Journal of the American Chemical Society</i> , 2013 , 135, 14110-8	16.4	173

170	Electron Transfer Dynamics in Semiconductor Chromophore Polyoxometalate Catalyst Photoanodes. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 918-926	3.8	100
169	Synthesis, structures, and photochemistry of tricarbonyl metal polyoxoanion complexes, [X ₂ W ₂ O ₇ O{M(CO) ₃ } ₂] ₁₂ [X = Sb, Bi and M = Re, Mn]. <i>Inorganic Chemistry</i> , 2013 , 52, 671-8	5.1	46
168	Iridium(III)-bis(oxazolonyl)phenyl catalysts for enantioselective C-H functionalization. <i>Chemical Science</i> , 2013 , 4, 2590	9.4	43
167	Rhodium-catalyzed enantioselective cyclopropanation of electron deficient alkenes. <i>Chemical Science</i> , 2013 , 4, 2844-2850	9.4	98
166	Parameterization of reactive force field: dynamics of the [Nb ₆ O ₁₉ H(x)] ^{(8-x)-} Lindqvist polyoxoanion in bulk water. <i>Journal of Physical Chemistry A</i> , 2013 , 117, 6967-74	2.8	9
165	Bis(4-(4-pyridyl)-2,2':6',2''-terpyridine)ruthenium(II) complexes and their N-alkylated derivatives in catalytic light-driven water oxidation. <i>RSC Advances</i> , 2013 , 3, 20647	3.7	18
164	Scope and mechanistic analysis of the enantioselective synthesis of allenes by rhodium-catalyzed tandem ylide formation/[2,3]-sigmatropic rearrangement between donor/acceptor carbenoids and propargylic alcohols. <i>Journal of the American Chemical Society</i> , 2012 , 134, 15497-504	16.4	143
163	Insight into Mechanistic Features of Ruthenium(II) Pybox-Catalyzed C-H Amination. <i>Organometallics</i> , 2012 , 31, 4950-4961	3.8	23
162	Mechanistic Insights into the Aerobic Cu(I)-Catalyzed Cross-Coupling of α -Acyl Thiosalicylamide Thiol Esters and Boronic Acids. <i>Organometallics</i> , 2012 , 31, 7958-7968	3.8	12
161	Structural Modification of TiO ₂ Surfaces in Bulk Water and Binding Motifs of a Functionalized C ₆₀ on TiO ₂ Anatase and Rutile Surfaces in Vacuo and in Water: Molecular Dynamics Studies. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 20937-20948	3.8	4
160	Polyoxometalate water oxidation catalysts and the production of green fuel. <i>Chemical Society Reviews</i> , 2012 , 41, 7572-89	58.5	593
159	In situ probe of photocarrier dynamics in water-splitting hematite (Fe ₂ O ₃) electrodes. <i>Energy and Environmental Science</i> , 2012 , 5, 8923	35.4	109
158	Key mechanistic features of enantioselective C-H bond activation reactions catalyzed by [(chiral mono-N-protected amino acid)-Pd(II)] complexes. <i>Journal of the American Chemical Society</i> , 2012 , 134, 1690-8	16.4	145
157	Revisiting the polyoxometalate-based late-transition-metal-oxo complexes: the "oxo wall" stands. <i>Inorganic Chemistry</i> , 2012 , 51, 7025-31	5.1	77
156	Catalytic adaptive recognition of thiol (SH) and selenol (SeH) groups toward synthesis of functionalized vinyl monomers. <i>Journal of the American Chemical Society</i> , 2012 , 134, 6637-49	16.4	84
155	Spectroscopic Studies of Light-driven Water Oxidation Catalyzed by Polyoxometalates. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 11850-11859	3.9	36
154	D ₂ -symmetric dirhodium catalyst derived from a 1,2,2-triarylcyclopropanecarboxylate ligand: design, synthesis and application. <i>Journal of the American Chemical Society</i> , 2011 , 133, 19198-204	16.4	156
153	Synthesis and characterization of a metal-to-polyoxometalate charge transfer molecular chromophore. <i>Journal of the American Chemical Society</i> , 2011 , 133, 20134-7	16.4	74

152	Ditantalum dinitrogen complex: reaction of H ₂ molecule with "end-on-bridged" [Ta(IV)] ₂ (μ(1):μ(1)-N ₂) and Bis(η-trido) [Ta(V)] ₂ (ηN) ₂ complexes. <i>Inorganic Chemistry</i> , 2011 , 50, 9481-90	5.1	21
151	A diruthenium catalyst for selective, intramolecular allylic C-H amination: reaction development and mechanistic insight gained through experiment and theory. <i>Journal of the American Chemical Society</i> , 2011 , 133, 17207-16	16.4	253
150	Polyoxometalates in the Design of Effective and Tunable Water Oxidation Catalysts. <i>Israel Journal of Chemistry</i> , 2011 , 51, 238-246	3.4	36
149	Efficient light-driven carbon-free cobalt-based molecular catalyst for water oxidation. <i>Journal of the American Chemical Society</i> , 2011 , 133, 2068-71	16.4	309
148	The role of the heteroatom (X = Si ^{IV} , PV, and SVI) on the reactivity of [X(H ₂ O)Ru ^{III} (EDH)2Ru ^{III} (H ₂ O)] _n [X ⁿ⁺ W ₁₀ O ₃₆](8B) with the O ₂ molecule. <i>Theoretical Chemistry Accounts</i> , 2011 , 130, 197-207	1.9	9
147	Insights into photoinduced electron transfer between [Ru(mptpy) ₂] ⁴⁺ (mptpy = 4'-(4-methylpyridinio)-2,2':6',2''-terpyridine) and [S ₂ O ₈] ²⁻ : computational and experimental studies. <i>Journal of Physical Chemistry A</i> , 2010 , 114, 6284-97	2.8	27
146	Insights into the mechanism of O ₂ formation and release from the Mn ₄ O ₄ "cubane" cluster. <i>Journal of Physical Chemistry A</i> , 2010 , 114, 11417-24	2.8	27
145	Computational studies of the geometry and electronic structure of an all-inorganic and homogeneous tetra-Ru-polyoxotungstate catalyst for water oxidation and its four subsequent one-electron oxidized forms. <i>Journal of Physical Chemistry A</i> , 2010 , 114, 535-42	2.8	39
144	Insights into photoinduced electron transfer between [Ru(bpy) ₃] ⁽²⁺⁾ and [S ₂ O ₈] ⁽²⁻⁾ in water: computational and experimental studies. <i>Journal of Physical Chemistry A</i> , 2010 , 114, 73-80	2.8	47
143	Structure and Bonding Energy Analysis of Cobalt, Rhodium, and Iridium Borylene Complexes [(C ₅ H ₅)(CO)M(BNX ₂)] (X = Me, SiH ₃ , SiMe ₃) and [(C ₅ H ₅)(PMe ₃)M{BN(SiH ₃) ₂ }] (M = Co, Rh, Ir). <i>Organometallics</i> , 2010 , 29, 142-148	3.8	28
142	Computational studies of transition metal selectivity of octapeptide repeat region of prion protein (PrP). <i>Journal of Physical Chemistry B</i> , 2010 , 114, 1127-35	3.4	16
141	A fast soluble carbon-free molecular water oxidation catalyst based on abundant metals. <i>Science</i> , 2010 , 328, 342-5	33.3	1231
140	Real size of ligands, reactants and catalysts: Studies of structure, reactivity and selectivity by ONIOM and other hybrid computational approaches?. <i>Journal of Molecular Catalysis A</i> , 2010 , 324, 104-119		41
139	Synthesis, structure, and characterization of two polyoxometalate-photosensitizer hybrid materials. <i>Inorganica Chimica Acta</i> , 2010 , 363, 4381-4386	2.7	31
138	Vicinal dinitridoruthenium-substituted polyoxometalates gamma-[XW ₁₀ O ₃₈ {RuN} ₂] ₆ - (X = Si or Ge). <i>Chemistry - A European Journal</i> , 2009 , 15, 10233-43	4.8	30
137	Computational insights to the mechanism of alkene epoxidation by manganese-based catalysts in the presence of bicarbonate. <i>Computational and Theoretical Chemistry</i> , 2009 , 903, 115-122		13
136	An experimental and density functional study of the Sb- bond activation and organo-Rh bond formation from the spontaneous decay of [RhCl ₃ (SbPh ₃) ₃]. <i>Polyhedron</i> , 2009 , 28, 3675-3684	2.7	4
135	Density Functional Studies of the Adsorption and Dissociation of NO _x (x = 1, 2) Molecules on the W(111) Surface. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 5300-5307	3.8	9

134	On the Mechanism of Pd(0)-Catalyzed, Cu(I) Carboxylate-Mediated Thioorganic-Boronic Acid Desulfitative Coupling. A Non-innocent Role for Carboxylate Ligand. <i>Organometallics</i> , 2009 , 28, 4639-4642	2.8	30
133	Mechanism of the divanadium-substituted polyoxotungstate [γ -1,2-H ₂ SiV ₂ W ₁₀ O ₄₀] ₄ -catalyzed olefin epoxidation by H ₂ O ₂ : a computational study. <i>Inorganic Chemistry</i> , 2009 , 48, 1871-8	5.1	28
132	Structural, physicochemical, and reactivity properties of an all-inorganic, highly active tetraruthenium homogeneous catalyst for water oxidation. <i>Journal of the American Chemical Society</i> , 2009 , 131, 17360-70	16.4	156
131	Homogeneous light-driven water oxidation catalyzed by a tetraruthenium complex with all inorganic ligands. <i>Journal of the American Chemical Society</i> , 2009 , 131, 7522-3	16.4	320
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9	Ab Initio Molecular Orbital Study of Electronic and Geometrical Structures of MCH ₂ ⁺ Complex and its Reactivity with H ₂ , Where M = Co, Rh, and Ir. <i>Israel Journal of Chemistry</i> , 1993 , 33, 307-316	3.4	33

8	Ab initio molecular orbital study of the electronic and geometric structure of methylenerrhodium(1+) and the reaction mechanism: $\text{RhCH}_2^+ + \text{H}_2 \rightarrow \text{Rh}^+ + \text{CH}_4$. <i>The Journal of Physical Chemistry</i> , 1993 , 97, 4064-4075		52
7	Ab initio study of the molecular and electronic structure of CoCH_2^+ and of the reaction mechanism of methylenecobalt(1+) + hydrogen. <i>The Journal of Physical Chemistry</i> , 1993 , 97, 11435-11444		55
6	Ab initio molecular orbital study of electronic and geometrical structures of MCH_2^+ and MSiH_2^+ complexes (M=Co, Rh, and Ir). <i>Journal of Chemical Physics</i> , 1993 , 99, 7859-7872	3.9	27
5	Metallaboranes with Group 8 and 9 Transition Metals. Is Accurate ab initio Molecular Orbital Calculation of Structure, Stability, and NMR Chemical Shifts Possible?. <i>Bulletin of the Chemical Society of Japan</i> , 1993 , 66, 3259-3270	5.1	10
4	Ab initio molecular orbital study of structure and NMR ^{11}B chemical shifts of Lewis base adducts of CO , NH_3 , PF_3 , and PH_3 with small nido-boranes, B_3H_7^- and B_4H_8^- . <i>Chemical Physics Letters</i> , 1993 , 214, 69-76	2.5	9
3	An alternative mechanism of BH_2SH formation in the reaction of B_2H_6 with SH_2 : concerted elimination of BH_3 and H_2 from $\text{H}_2\text{S} \cdot \text{B}_2\text{H}_6$. Ab initio MO study. <i>Chemical Physics Letters</i> , 1993 , 216, 313-318	2.5	2
2	Unified Mechanistic Concept of the Copper-Catalyzed and Amide-Oxazoline-Directed $\text{C}(\text{sp}^2)$ Bond Functionalization. <i>ACS Catalysis</i> , 12620-12631	13.1	4
1	Roles of Ligand and Oxidant in Pd(II)-Catalyzed and Ligand-Enabled $\text{C}(\text{sp}^3)$ Lactonization in Aliphatic Carboxylic Acid: Mechanistic Studies. <i>ACS Catalysis</i> , 4848-4858	13.1	2