Piotr Pietrzyk

List of Publications by Year in descending order

56 papers	1,452 citations	331670 21 h-index	345221 36 g-index
64 all docs	64 docs citations	64 times ranked	2048 citing authors

#	Article	IF	Citations
1	Co3O4-ZrO2 and Co3O4-Nb2O5 crystalline-amorphous composites for H2O2 activation via Fenton-like and electroprotic processes â€“ Proof of concept. Catalysis Today, 2022, 384-386, 156-165.	4.4	5
2	Relevance of the electron transfer pathway in photodynamic activity of Ru(<scp>ii</scp>) polypyridyl complexes containing 4,7-diphenyl-1,10-phenanthroline ligands under normoxic and hypoxic conditions. Dalton Transactions, 2022, 51, 1888-1900.	3.3	7
3	Intermolecular interactions of tetracyanoethylene (TCNE) and fumaronitrile (FN) with minor amines. A combined UV-Vis and EPR study.. Journal of Chemical Physics, 2022, 156, 094301.	3.0	1
4	Nature and role of Cu(II) species in doped C12A7 catalysts for soot oxidation. Applied Catalysis B: Environmental, 2022, 316, 121604.	20.2	6
5	Unraveling the Origin of Enhanced Activity of the Nb₂O₅/H₂O₂ System in the Elimination of Ciprofloxacin: Insights into the Role of Reactive Oxygen Species in Interface Processes. ACS Applied Materials & Interfaces, 2022, 14, 31824-31837.	8.0	9
6	Structure and mechanistic relevance of Ni2+â€“NO adduct in model HC SCR reaction over NiZSM-5 catalyst â€“ Insights from standard and correlation EPR and IR spectroscopic studies corroborated by molecular modeling. Journal of Catalysis, 2021, 394, 206-219.	6.2	14
7	Enhanced adsorption and degradation of methylene blue over mixed niobium-cerium oxide â€“ Unraveling the synergy between Nb and Ce in advanced oxidation processes. Journal of Hazardous Materials, 2021, 415, 125665.	12.4	31
8	The Cytotoxic Effect of Copper (II) Complexes with Halogenated 1,3-Disubstituted Arylthioureas on Cancer and Bacterial Cells. International Journal of Molecular Sciences, 2021, 22, 11415.	4.1	9
9	Analysis of NH₃â€TPD Profiles for CuSSZâ€13 SCR Catalyst of Controlled Al Distribution â€“ Complexity Resolved by First Principles Thermodynamics of NH₃ Desorption, IR and EPR Insight into Cu Speciation**. Chemistry - A European Journal, 2021, 27, 17159-17180.	3.3	14
10	Redox states of nickel in zeolites and molecular account into binding of N2 to nickel(I) centers â€“ IR, EPR and DFT study. Microporous and Mesoporous Materials, 2020, 291, 109692.	4.4	4
11	Photogeneration of reactive oxygen species over ultrafine TiO2 particles functionalized with rutinâ€“ligand induced sensitization and crystallization effects. Research on Chemical Intermediates, 2019, 45, 5781-5800.	2.7	9
12	Stability of Cu(<scp>ii</scp>) complexes with FomA protein fragments containing two His residues in the peptide chain. Metallomics, 2019, 11, 1518-1531.	2.4	7
13	Cu(II) Complexes with FomA Protein Fragments of Fusobacterium Nucleatum Increase Oxidative Stress and Malondialdehyde Level. Chemical Research in Toxicology, 2019, 32, 2227-2237.	3.3	10
14	ROS-mediated lipid peroxidation as a result of Cu(<scp>ii</scp>) interaction with FomA protein fragments of F. nucleatum: relevance to colorectal carcinogenesis. Metallomics, 2019, 11, 2066-2077.	2.4	15
15	Molecular structures of nickel adducts in zeolites â€“ Interpretation of experimental EPR g-tensors guided by DFT calculations. Journal of Molecular Structure, 2019, 1180, 754-763.	3.6	8
16	Synthesis, structural and antimicrobial studies of type II topoisomerase-targeted copper(II) complexes of 1,3-disubstituted thiourea ligands. Journal of Inorganic Biochemistry, 2018, 182, 61-70.	3.5	25
17	Physicochemical and electrochemical properties of the carbon materials containing nitrogen and cobalt derived from acetonitrile and Coâ€“Al layered double hydroxides. Journal of Materials Science, 2018, 53, 11292-11314.	3.7	9
18	Generation of Reactive Oxygen Species via Electroprotic Interaction of H₂O₂ with ZrO₂ Gel: Ionic Sponge Effect and pH-Switchable Peroxidase- and Catalase-Like Activity. ACS Catalysis, 2017, 7, 2935-2947.	11.2	99

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19	Mn 3+ -saturated bovine lactoferrin as a new complex with potential prebiotic activities for dysbiosis treatment and prevention â€“ On the synthesis, chemical characterization and origin of biological activity. Journal of Functional Foods, 2017, 38, 264-272.	3.4	7
20	Synthesis, structural studies and biological activity of novel Cu(II) complexes with thiourea derivatives of 4-azatricyclo[5.2.1.0 2,6]dec-8-ene-3,5-dione. Journal of Inorganic Biochemistry, 2017, 176, 8-16.	3.5	20
21	Role of chain length of the capping agents of iron oxide based fuel borne catalysts in the enhancement of soot combustion activity. Applied Catalysis B: Environmental, 2016, 199, 485-493.	20.2	13
22	Paramagnetic dioxovanadium(<scp>iv</scp>) molecules inside the channels of zeolite BEA â€“ EPR screening of VO₂ reactivity toward small gas-phase molecules. Physical Chemistry Chemical Physics, 2016, 18, 9490-9496.	2.8	8
23	Structure dependent charge transfer in bipyrimidiniumâ€“octacyanotungstate ion pairs. Polyhedron, 2016, 119, 1-6.	2.2	2
24	Nitrogen-doped carbon materials derived from acetonitrile and Mg-Co-Al layered double hydroxides as electrocatalysts for oxygen reduction reaction. Electrochimica Acta, 2016, 212, 47-58.	5.2	13
25	Diagnostic Features of EPR Spectra of Superoxide Intermediates on Catalytic Surfaces and Molecular Interpretation of Their g and A Tensors. Topics in Catalysis, 2015, 58, 796-810.	2.8	40
26	Nitration and reduction route to surface groups of mesoporous carbons obtained from sucrose and phloroglucinol/formaldehyde precursors. Materials Chemistry and Physics, 2015, 149-150, 539-552.	4.0	9
27	Search for reactive intermediates in catalytic oxidation with hydrogen peroxide over amorphous niobium(V) and tantalum(V) oxides. Applied Catalysis B: Environmental, 2015, 164, 288-296.	20.2	90
28	New Thiadiazole Dioxide Bridging Ligand with a Stable Radical Form for the Construction of Magnetic Coordination Chains. Crystal Growth and Design, 2014, 14, 4878-4881.	3.0	18
29	Intimate Binding Mechanism and Structure of Trigonal Nickel(I) Monocarbonyl Adducts in ZSM-5 Zeoliteâ€”Spectroscopic Continuous Wave EPR, HYSCORE, and IR Studies Refined with DFT Quantification of Disentangled Electron and Spin Density Redistributions along Ïƒ and Ï€ Channels. Journal of the American Chemical Society, 2013, 135, 15467-15478.	13.7	20
30	Temperature-dependent orientation of self-organized nanopatterns on ion-irradiated TiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>(110). Physical Review B, 2013, 88, .	3.2	18
31	Spectroscopic IR, EPR, and operandoDRIFT insights into surface reaction pathways of selective reduction of NO by propene over the Coâ€“BEAzeolite. Physical Chemistry Chemical Physics, 2012, 14, 2203-2215.	2.8	35
32	Preparation and characterization of SBA-1â€“supported chromium oxide catalysts for CO2 assisted dehydrogenation of propane. Microporous and Mesoporous Materials, 2012, 161, 56-66.	4.4	107
33	Molecular interpretation of EPR parameters - computational spectroscopy approaches. Electron Paramagnetic Resonance, 2012, , 264-311.	0.2	7
34	Spin Ground State and Magnetic Properties of Cobalt(II): Relativistic DFT Calculations Guided by EPR Measurements of Bis(2,4-acetylacetonate)cobalt(II)-Based Complexes. Journal of Physical Chemistry A, 2011, 115, 2316-2324.	2.5	36
35	THE ROLE OF INTERMEDIATE CALCIUM ALUMINATE PHASES IN SOLID STATE SYNTHESIS OF MAYENITE (Ca12Al14O33). Functional Materials Letters, 2011, 04, 183-186.	1.2	49
36	Heterogeneous Binding of Dioxygen: EPR and DFT Evidence for Side-On Nickel(II)â€“Superoxo Adduct with Unprecedented Magnetic Structure Hosted in MFI Zeolite. Journal of the American Chemical Society, 2011, 133, 19931-19943.	13.7	37

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37	Role of NO^{Î´+} Intermediates in NO Reduction with Propene over NiZSM-5 Zeolite Revealed by EPR and IR Spectroscopic Investigations and DFT Modeling. Journal of Physical Chemistry C, 2011, 115, 13008-13015.	3.1	24
38	Magnetic Properties of Monomer and Dimer Tetrahedral VO x Entities Dispersed on Amorphous Silica-based Materials: Prediction of EPR Parameters from Relativistic DFT Calculations and Broken Symmetry Approach to Exchange Couplings. Applied Magnetic Resonance, 2011, 40, 471-479.	1.2	6
39	Spectroscopic CW-EPR and HYSCORE investigations of Cu2+ and O2â¯ species in copper doped nanoporous calcium aluminate (12CaOÂ·7Al2O3). Physical Chemistry Chemical Physics, 2010, 12, 10933.	2.8	31
40	Investigations into the Structure of Nitrogen-Containing CMK-3 and OCM-0.75 Carbon Replicas and the Nature of Surface Functional Groups by Spectroscopic and Sorption Techniques. Journal of Physical Chemistry C, 2010, 114, 1208-1216.	3.1	41
41	Resolving Conformation Dichotomy for Yâ€•and Tâ€Shaped Threeâ€Coordinate Ni^I Carbonyl Complexes with Relativistic DFT Analysis of EPR Fingerprints. Chemistry - A European Journal, 2009, 15, 11802-11807.	3.3	12
42	DFT Analysis of g and 13C Hyperfine Coupling Tensors for Model NiI(CO)nLm (n = 1â¯4, L = H2O, OHâ¯) Complexes Epitomizing Surface Nickel(I) Carbonyls. Journal of Physical Chemistry A, 2008, 112, 12208-12219.	2.5	18
43	Chapter 2 DFT modeling and spectroscopic investigations into molecular aspects of DeNOx catalysis. Studies in Surface Science and Catalysis, 2007, , 27-65.	1.5	8
44	Co2+/Co0 redox couple revealed by EPR spectroscopy triggers preferential coordination of reactants during SCR of NOx with propene over cobalt-exchanged zeolites. Chemical Communications, 2007, , 1930.	4.1	27
45	Generation, Identification, and Reactivity of Paramagnetic VO₂ Centers in Zeolite BEA for Model Studies of Processes Involving Spin Pairing, Electron Transfer, and Oxygen Transfer. Journal of the American Chemical Society, 2007, 129, 14174-14175.	13.7	33
46	Characterization of Crâ¯MCM-41 and Al,Crâ¯MCM-41 Mesoporous Catalysts for Gas-Phase Oxidative Dehydrogenation of Cyclohexane. Journal of Physical Chemistry C, 2007, 111, 1830-1839.	3.1	40
47	Computational spectroscopy and DFT investigations into nitrogen and oxygen bond breaking and bond making processes in model deNOx and deN2O reactions. Catalysis Today, 2007, 119, 219-227.	4.4	46
48	Combining computational and in situ spectroscopies joint with molecular modeling for determination of reaction intermediates of deNOx processâ€”CuZSM-5 catalyst case study. Catalysis Today, 2007, 126, 103-111.	4.4	25
49	EPR and DFT study of NO interaction with Ni/SiO2 catalyst: Insight into mechanistic steps of disproportionation process promoted by tripodal surface nickel complex. Catalysis Today, 2006, 114, 154-161.	4.4	16
50	DFT calculations of magnetic parameters for molybdenum complexes and hydroxymethyl intermediates trapped on silica surface. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2006, 63, 788-794.	3.9	5
51	EPR spectroscopy and DFT calculations of the g tensors of {VO}1/ZSM-5, {CuNO}11/ZSM-5 and {NaNO}1/ZSM-5 intrazeolitic complexes. Studies in Surface Science and Catalysis, 2005, 158, 617-624.	1.5	5
52	Relativistic Density Functional Calculations of EPR g Tensor for Î·{CuNO}11 Species in Discrete and Zeolite-Embedded States. Journal of Physical Chemistry A, 2005, 109, 10571-10581.	2.5	23
53	Application of the Genetic Algorithm Joint with the Powell Method to Nonlinear Least-Squares Fitting of Powder EPR Spectra. Journal of Chemical Information and Modeling, 2005, 45, 18-29.	5.4	201
54	Spectroscopy and Computations of Supported Metal Adducts. 1. DFT Study of CO and NO Adsorption and Coadsorption on Cu/SiO2. Journal of Physical Chemistry B, 2005, 109, 10291-10303.	2.6	20

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55	Paramagnetic species on catalytic surfacesâ€"DFT investigations into structure sensitivity of the hyperfine coupling constants. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 1257-1265.	3.9	7
56	Molecular Structure, Spin Density Distribution, and Hyperfine Coupling Constants of theÎ·1{CuNO}11Adduct in the ZSM-5 Zeolite:Â DFT Calculations and Comparison with EPR Data. Journal of Physical Chemistry B, 2003, 107, 6105-6113.	2.6	46