Andrey Bukhtiyarov

List of Publications by Year
in descending order

77 papers	1,339 citations	331670 21 h-index	434195 31 g-index
77 all docs	77 docs citations	77 times ranked	1432 citing authors

#	Article	IF	Citations
1	Heterogeneous Microtesla SABRE Enhancement of ¹⁵N NMR Signals. Angewandte Chemie - International Edition, 2017, 56, 10433-10437.	13.8	58
2	Strong Metalâ€“Support Interactions for Palladium Supported on TiO₂ Catalysts in the Heterogeneous Hydrogenation with Parahydrogen. ChemCatChem, 2015, 7, 2581-2584.	3.7	54
3	XPS/STM study of model bimetallic Pdâ€“Au/HOPG catalysts. Applied Surface Science, 2016, 367, 214-221.	6.1	50
4	Selective Singleâ€Site Pdâ^'In Hydrogenation Catalyst for Production of Enhanced Magnetic Resonance Signals using Parahydrogen. Chemistry - A European Journal, 2018, 24, 2547-2553.	3.3	50
5	Surface science approach to Pt/carbon model catalysts: XPS, STM and microreactor studies. Applied Surface Science, 2018, 440, 680-687.	6.1	47
6	In situ formation of the active sites in Pdâ€“Au bimetallic nanocatalysts for CO oxidation: NAP (near ambient pressure) XPS and MS study. Faraday Discussions, 2018, 208, 255-268.	3.2	45
7	Aqueous, Heterogeneous para-Hydrogen-Induced ¹⁵N Polarization. Journal of Physical Chemistry C, 2017, 121, 15304-15309.	3.1	40
8	Pd Segregation on the Surface of Bimetallic PdAu Nanoparticles Induced by Low Coverage of Adsorbed CO. Journal of Physical Chemistry C, 2019, 123, 8037-8046.	3.1	40
9	CO2 activation on ultrathin ZrO2 film by H2O co-adsorption: In situ NAP-XPS and IRAS studies. Surface Science, 2019, 679, 139-146.	1.9	38
10	Hydrothermal Solubilizationâ€“Hydrolysisâ€“Dehydration of Cellulose to Glucose and 5-Hydroxymethylfurfural Over Solid Acid Carbon Catalysts. Topics in Catalysis, 2018, 61, 1912-1927.	2.8	37
11	Production of Pure Aqueous ¹³Câ€Hyperpolarized Acetate by Heterogeneous Parahydrogenâ€Induced Polarization. Chemistry - A European Journal, 2016, 22, 16446-16449.	3.3	36
12	Liquid-phase acetylene hydrogenation over Ag-modified Pd/Sibunit catalysts: Effect of Pd to Ag molar ratio. Applied Catalysis A: General, 2020, 600, 117627.	4.3	34
13	Application of near ambient pressure gas-phase X-ray photoelectron spectroscopy to the investigation of catalytic properties of copper in methanol oxidation. Applied Surface Science, 2016, 363, 303-309.	6.1	27
14	Propane Oxidation Over Pd/Al2O3: Kinetic and In Situ XPS Study. Topics in Catalysis, 2017, 60, 190-197.	2.8	27
15	Heterogeneous Microtesla SABRE Enhancement of ¹⁵N NMR Signals. Angewandte Chemie, 2017, 129, 10569-10573.	2.0	27
16	Using X-ray Photoelectron Spectroscopy To Evaluate Size of Metal Nanoparticles in the Model Au/C Samples. Journal of Physical Chemistry C, 2016, 120, 10419-10426.	3.1	25
17	PdZn/Î±-Al 2 O 3 catalyst for liquid-phase alkyne hydrogenation: effect of the solid-state alloy transformation into intermetallics. Mendeleev Communications, 2018, 28, 152-154.	1.6	25
18	Photoinduced Deposition of Platinum from (Bu₄N)₂[Pt(NO₃)₆] for a Low Pt-Loading Pt/TiO₂ Hydrogen Photogeneration Catalyst. ACS Applied Materials & Interfaces, 2020, 12, 48631-48641.	8.0	24

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19	Tuning the surface structure and catalytic performance of PdIn/Al2O3 in selective liquid-phase hydrogenation by mild oxidative-reductive treatments. Mendeleev Communications, 2018, 28, 603-605.	1.6	23
20	XPS study of gold oxidation with nitrogen dioxide in model Au/C samples. Kinetics and Catalysis, 2015, 56, 796-800.	1.0	22
21	Identification of nitrogen-containing species obtained by nitric oxide adsorption on the surface of model gold catalysts. Kinetics and Catalysis, 2011, 52, 756-760.	1.0	21
22	An XPS and STM study of the size effect in NO adsorption on gold nanoparticles. Russian Chemical Bulletin, 2011, 60, 1977-1984.	1.5	21
23	CO-induced segregation as an efficient tool to control the surface composition and catalytic performance of PdAg3/Al2O3 catalyst. Mendeleev Communications, 2019, 29, 547-549.	1.6	21
24	In Situ XPS and MS Study of Methane Oxidation on the Pdâ€“Pt/Al2O3 Catalysts. Topics in Catalysis, 2020, 63, 66-74.	2.8	21
25	Hydrogenation of Unsaturated Six-Membered Cyclic Hydrocarbons Studied by the Parahydrogen-Induced Polarization Technique. Journal of Physical Chemistry C, 2016, 120, 13541-13548.	3.1	20
26	The effect of oxidative and reductive treatments of titania-supported metal catalysts on the pairwise hydrogen addition to unsaturated hydrocarbons. Catalysis Today, 2017, 283, 82-88.	4.4	20
27	New Pt/Alumina model catalysts for STM and in situ XPS studies. Applied Surface Science, 2017, 401, 341-347.	6.1	20
28	Formation of supported intermetallic nanoparticles in the Pdâ€“Zn/Î±-Al2O3 catalyst. Kinetics and Catalysis, 2017, 58, 471-479.	1.0	20
29	Study on the active phase formation of Pd-Zn/Sibunit catalysts during the thermal treatment in hydrogen. Applied Surface Science, 2019, 483, 730-741.	6.1	20
30	Are Au Nanoparticles on Oxygen-Free Supports Catalytically Active?. Topics in Catalysis, 2016, 59, 469-477.	2.8	19
31	Model Bimetallic Pdâ€“Ag/HOPG Catalysts: An XPS and STM Study. Kinetics and Catalysis, 2018, 59, 776-785.	1.0	19
32	New photocatalysts based on Cd0.3Zn0.7S and Ni(OH)2 for hydrogen production from ethanol aqueous solutions under visible light. Applied Catalysis A: General, 2018, 563, 170-176.	4.3	19
33	The model thin film alumina catalyst support suitable for catalysis-oriented surface science studies. Applied Surface Science, 2015, 349, 310-318.	6.1	18
34	Deciphering the Nature of Ru Sites in Reductively Exsolved Oxides with Electronic and Geometric Metalâ€“Support Interactions. Journal of Physical Chemistry C, 2020, 124, 25299-25307.	3.1	18
35	Mechanistic in situ investigation of heterogeneous hydrogenation over Rh/TiO₂ catalysts: selectivity, pairwise route and catalyst nature. Faraday Discussions, 2021, 229, 161-175.	3.2	18
36	Bimetallic Pdâ€“Au/Highly Oriented Pyrolytic Graphite Catalysts: from Composition to Pairwise Parahydrogen Addition Selectivity. Journal of Physical Chemistry C, 2018, 122, 18588-18595.	3.1	17

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37	Spatially resolved NMR spectroscopy of heterogeneous gas phase hydrogenation of 1,3-butadiene with parahydrogen. Catalysis Science and Technology, 2020, 10, 99-104.	4.1	16
38	Carbon dioxide reduction under visible light: a comparison of cadmium sulfide and titania photocatalysts. Mendeleev Communications, 2020, 30, 192-194.	1.6	16
39	PdIn/Al2O3 Intermetallic Catalyst: Structure and Catalytic Characteristics in Selective Hydrogenation of Acetylene. Kinetics and Catalysis, 2019, 60, 842-850.	1.0	15
40	Formation of Isolated Single-Atom Pd1 Sites on the Surface of Pdâ€“Ag/Al2O3 Bimetallic Catalysts. Kinetics and Catalysis, 2020, 61, 758-767.	1.0	15
41	In situ XPS study of the size effect in the interaction of NO with the surface of the model Ag/Al2O3/FeCrAl catalysts. Russian Chemical Bulletin, 2015, 64, 2780-2785.	1.5	14
42	Zinc Addition Influence on the Properties of Pd/Sibunit Catalyst in Selective Acetylene Hydrogenation. Topics in Catalysis, 2020, 63, 139-151.	2.8	14
43	Effect of sulfosalicylic acid treatment on the properties of Beta zeolite and performance of NiW/Beta-based catalysts in hexadecane hydrocracking. Applied Catalysis A: General, 2020, 598, 117573.	4.3	14
44	Intermetallic Pd In /Al2O3 catalysts with isolated single-atom Pd sites for one-pot hydrogenation of diphenylacetylene into trans-stilbene. Mendeleev Communications, 2020, 30, 468-471.	1.6	12
45	Three-way catalysis with bimetallic supported Pd-Au catalysts: Gold as a poison and as a promotor. Applied Catalysis B: Environmental, 2021, 282, 119614.	20.2	12
46	Photocatalytic CO2 Reduction Over Ni-Modified Cd1â^'xZnxS-Based Photocatalysts: Effect of Phase Composition of Photocatalyst and Reaction Media on Reduction Rate and Product Distribution. Topics in Catalysis, 2020, 63, 121-129.	2.8	10
47	Intermetallic Pd-In/HOPG model catalysts: Reversible tuning the surface structure by O2-induced segregation. Applied Surface Science, 2020, 525, 146493.	6.1	10
48	Constructing g-C3N4/Cd1â^'xZnxS-Based Heterostructures for Efficient Hydrogen Production under Visible Light. Catalysts, 2021, 11, 1340.	3.5	9
49	Liquid-Phase Hydrogenation of 1-Phenyl-1-propyne on the Pd1Ag3/Al2O3 Single-Atom Alloy Catalyst: Kinetic Modeling and the Reaction Mechanism. Nanomaterials, 2021, 11, 3286.	4.1	9
50	Atomic scale structural defects in the graphite layer for model catalysis. Surface Science, 2018, 677, 90-92.	1.9	8
51	Pdâ€“Cu/HOPG and Pdâ€“Ag/HOPG Model Catalysts in CO and Methanol Oxidations at Submillibar Pressures. Kinetics and Catalysis, 2019, 60, 832-841.	1.0	8
52	Pd Single-Atom Sites on the Surface of PdAu Nanoparticles: A DFT-Based Topological Search for Suitable Compositions. Nanomaterials, 2021, 11, 122.	4.1	8
53	Synthesis, Characterization and Visible-Light Photocatalytic Activity of Solid and TiO2-Supported Uranium Oxycompounds. Nanomaterials, 2021, 11, 1036.	4.1	8
54	N-Methylation of p-Anisidine on the Catalysts Based on Cu-Containing Layered Double Hydroxides. Kinetics and Catalysis, 2019, 60, 343-354.	1.0	7

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55	Investigation of concentration hysteresis in methane oxidation on bimetallic Ptâ€“Pd/Al2O3 catalyst by in situ XPS and mass spectrometry. Mendeleev Communications, 2021, 31, 635-637.	1.6	7
56	Atomic-scale changes of silica-supported catalysts with nanocrystalline or amorphous gallia phases: implications of hydrogen pretreatment on their selectivity for propane dehydrogenation. Catalysis Science and Technology, 2022, 12, 3957-3968.	4.1	7
57	Oxygen transport in Pr nickelates: Elucidation of atomic-scale features. Solid State Ionics, 2020, 344, 115155.	2.7	6
58	Comparative Study of the Photocatalytic Hydrogen Evolution over Cd1âˆ’xMnxS and CdS-Î²-Mn3O4-MnOOH Photocatalysts under Visible Light. Nanomaterials, 2021, 11, 355.	4.1	6
59	Tetranitratopalladate(II) Salts with Tetraalkylammonium Cations: Structural Aspects, Reactivity, and Applicability toward Palladium Deposition for Catalytic Applications. Inorganic Chemistry, 2021, 60, 2983-2995.	4.0	6
60	Sustainable Hydrogen Production from Starch Aqueous Suspensions over a Cd0.7Zn0.3S-Based Photocatalyst. Catalysts, 2021, 11, 870.	3.5	6
61	Local Structure of Pd1 Single Sites on the Surface of PdIn Intermetallic Nanoparticles: A Combined DFT and CO-DRIFTS Study. Catalysts, 2021, 11, 1376.	3.5	5
62	Pd on Nanodiamond/Graphene in Hydrogenation of Propyne with Parahydrogen. Journal of Physical Chemistry C, 2021, 125, 27221-27229.	3.1	5
63	Composite photocatalysts based on Cd_{1âˆ’x}Zn_xS and TiO₂ for hydrogen production under visible light: effect of platinum co-catalyst location. RSC Advances, 2021, 11, 37966-37980.	3.6	5
64	Contribution of (NO3 âˆ’)surf Reduction to the Overall Mechanism of H2-Promoted n-C6H14-DeNOx Over Ag/Al2O3. Topics in Catalysis, 2013, 56, 187-192.	2.8	4
65	Bimetallic Pdâ€”Pt/Î³-Al2O3 catalysts for complete methane oxidation: the effect of the Pt: Pd ratio. Russian Chemical Bulletin, 2015, 64, 2802-2805.	1.5	4
66	Thermal stability of Agâ€“Au, Cuâ€“Au, and Agâ€“Cu bimetallic nanoparticles supported on highly oriented pyrolytic graphite. Kinetics and Catalysis, 2016, 57, 704-711.	1.0	4
67	Chemical and Phase Transformation in W-Mn-Containing Catalysts for Oxidative Coupling of Methane. Russian Journal of Physical Chemistry A, 2019, 93, 421-430.	0.6	4
68	Using Sr-XPS to Study the Preparation Features of M-Au/HOPG Model Catalysts (M = Pd, Ag, Cu). Journal of Structural Chemistry, 2019, 60, 45-52.	1.0	4
69	An Investigation into the Bulk and Surface Phase Transformations of Bimetallic Pd-In/Al2O3 Catalyst during Reductive and Oxidative Treatments In Situ. Catalysts, 2021, 11, 859.	3.5	4
70	Near-Ambient Pressure XPS and MS Study of CO Oxidation over Model Pd-Au/HOPG Catalysts: The Effect of the Metal Ratio. Nanomaterials, 2021, 11, 3292.	4.1	4
71	An ultrahigh vacuum-compatible reaction cell for model catalysis under atmospheric pressure flow conditions. Review of Scientific Instruments, 2020, 91, 125101.	1.3	3
72	â€œElectronic structureâ€•beamline 1-6 at SKIF synchrotron facility. AIP Conference Proceedings, 2020, , .	0.4	2

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73	Hydrogarnet-derived Rh/TiO2 catalysts with a low rhodium content for a photocatalytic hydrogen production. Materials Letters, 2022, 307, 130997.	2.6	2
74	The effect of CO treatment on the surface structure of bimetallic Pd-Au/HOPG and Pd-In/HOPG nanoparticles: A comparative study. Nano Structures Nano Objects, 2022, 29, 100830.	3.5	2
75	Synthesis of Hydroxylamine Sulfate via NO Hydrogenation over Pt/Graphite Catalysts. I: Physicochemical State of Platinum Particles and the Surface of the Support in the Catalysts. Catalysis in Industry, 2018, 10, 279-287.	0.7	1
76	Synthesis of Hydroxylamine Sulfate via NO Hydrogenation over Pt/Graphite Catalysts, Part 2: Effect of the Reaction Conditions and the Physicochemical State of a Catalyst on the Yield of Products. Catalysis in Industry, 2020, 12, 16-28.	0.7	1
77	SRPES and STM data for the model bimetallic Pd-In/HOPG catalysts: Effects of mild post-synthesis oxidative treatments. Data in Brief, 2021, 39, 107626.	1.0	1