

# Valerii Bukhtiyarov

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9279713/publications.pdf>

Version: 2024-02-01

279  
papers

8,304  
citations

41258

49  
h-index

71532

76  
g-index

289  
all docs

289  
docs citations

289  
times ranked

7819  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Metalâ€‘support interactions in cobalt-aluminum co-precipitated catalysts: XPS and CO adsorption studies. <i>Journal of Molecular Catalysis A</i> , 2001, 175, 189-204.   | 4.8 | 245       |
| 2  | Methanol Oxidation on a Copper Catalyst Investigated Using in Situ X-ray Photoelectron Spectroscopyâ€‘. <i>Journal of Physical Chemistry B</i> , 2004, 108, 14340-14347.  | 1.2 | 221       |
| 3  | Metallic nanosystems in catalysis. <i>Russian Chemical Reviews</i> , 2001, 70, 147-159.   | 2.5 | 192       |
| 4  | Development of new methods in modern selective organic synthesis: preparation of functionalized molecules with atomic precision. <i>Russian Chemical Reviews</i> , 2014, 83, 885-985.   | 2.5 | 182       |
| 5  | Observation of Parahydrogenâ€‘Induced Polarization in Heterogeneous Hydrogenation on Supported Metal Catalysts. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 1492-1495.   | 7.2 | 179       |
| 6  | Electronic and Chemical Properties of Nanostructured Cerium Dioxide Doped with Praseodymium. <i>Journal of Physical Chemistry B</i> , 2005, 109, 5728-5738.   | 1.2 | 175       |
| 7  | NMR Hyperpolarization Techniques of Gases. <i>Chemistry - A European Journal</i> , 2017, 23, 725-751.   | 1.7 | 140       |
| 8  | Atomic oxygen species on silver: Photoelectron spectroscopy and x-ray absorption studies. <i>Physical Review B</i> , 2003, 67, .  | 1.1 | 135       |
| 9  | Interaction of Al <sub>2</sub> O <sub>3</sub> and CeO <sub>2</sub> Surfaces with SO <sub>2</sub> and SO <sub>2</sub> + O <sub>2</sub> Studied by X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2005, 109, 11712-11719. | 1.2 | 128       |
| 10 | The silverâ€‘oxygen system in catalysis: new insights by near ambient pressure X-ray photoelectron spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 4554.   | 1.3 | 127       |
| 11 | Combined in situ XPS and PTRMS study of ethylene epoxidation over silver. <i>Journal of Catalysis</i> , 2006, 238, 260-269.   | 3.1 | 125       |
| 12 | Platinum nanoparticles on Al <sub>2</sub> O <sub>3</sub> : Correlation between the particle size and activity in total methane oxidation. <i>Journal of Catalysis</i> , 2009, 268, 60-67.   | 3.1 | 123       |
| 13 | Selective oxidation of methanol to form dimethoxymethane and methyl formate over a monolayer V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> catalyst. <i>Journal of Catalysis</i> , 2014, 311, 59-70.  | 3.1 | 114       |
| 14 | Chapter 4 Xâ€‘ray Photoelectron Spectroscopy for Investigation of Heterogeneous Catalytic Processes. <i>Advances in Catalysis</i> , 2009, , 213-272.  | 0.1 | 105       |
| 15 | Stages in the Modification of a Silver Surface for Catalysis of the Partial Oxidation of Ethylene. <i>Journal of Catalysis</i> , 1994, 150, 262-267.  | 3.1 | 104       |
| 16 | High-Pressure Studies of CO Adsorption on Pd(111) by X-ray Photoelectron Spectroscopy and Sum-Frequency Generation. <i>Journal of Physical Chemistry B</i> , 2003, 107, 3522-3527.  | 1.2 | 96        |
| 17 | XPS and TEM Studies on the Role of the Support and Alkali Promoter in Ru/MgO and Ruâ€‘Cs+/MgO Catalysts for Ammonia Synthesis. <i>Journal of Physical Chemistry C</i> , 2007, 111, 9427-9436.   | 1.5 | 95        |
| 18 | Methanol Dehydrogenation and Formation of Carbonaceous Overlayers on Pd(111) Studied by High-Pressure SFG and XPS Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2004, 108, 12955-12961.  | 1.2 | 93        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Effect of the nature of carbon support on the formation of active sites in Pd/C and Ru/C catalysts for hydrogenation of furfural. <i>Catalysis Today</i> , 2015, 249, 145-152.   | 2.2 | 90        |
| 20 | Alloy Catalyst in a Reactive Environment: The Example of Ag-Cu Particles for Ethylene Epoxidation. <i>Physical Review Letters</i> , 2010, 104, 035503.   | 2.9 | 86        |
| 21 | XPS Study of Stability and Reactivity of Oxidized Pt Nanoparticles Supported on TiO <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , 2017, 121, 17297-17304.  | 1.5 | 83        |
| 22 | Oxygen adsorption on Ag(111): X-ray photoelectron spectroscopy (XPS), angular dependent x-ray photoelectron spectroscopy (ADXPS) and temperature-programmed desorption (TPD) studies. <i>Journal of Chemical Physics</i> , 1999, 111, 2169-2175. | 1.2 | 82        |
| 23 | In situ XPS study of self-sustained oscillations in catalytic oxidation of propane over nickel. <i>Surface Science</i> , 2013, 609, 113-118.   | 0.8 | 82        |
| 24 | Particle Size Effect on CH <sub>4</sub> Oxidation Over Noble Metals: Comparison of Pt and Pd Catalysts. <i>Topics in Catalysis</i> , 2013, 56, 306-310.  | 1.3 | 78        |
| 25 | Mechanistic Study of Methanol Decomposition and Oxidation on Pt(111). <i>Journal of Physical Chemistry C</i> , 2013, 117, 8189-8197.   | 1.5 | 76        |
| 26 | XPS and UPS studies of oxygen adsorption over clean and carbon-modified silver surfaces. <i>Surface Science</i> , 1988, 201, 195-210.  | 0.8 | 75        |
| 27 | Nanostructured, Gd-Doped Ceria Promoted by Pt or Pd: Investigation of the Electronic and Surface Structures and Relations to Chemical Properties. <i>Journal of Physical Chemistry B</i> , 2005, 109, 20077-20086.                               | 1.2 | 74        |
| 28 | Stages in the Modification of a Silver Surface for Catalysis of the Partial Oxidation of Ethylene. <i>Journal of Catalysis</i> , 1994, 150, 268-273.   | 3.1 | 73        |
| 29 | High-Resolution 3D Proton MRI of Hyperpolarized Gas Enabled by Parahydrogen and Rh/TiO <sub>2</sub> Heterogeneous Catalyst. <i>Chemistry - A European Journal</i> , 2014, 20, 11636-11639.   | 1.7 | 72        |
| 30 | Propane- <i>d</i> <sub>6</sub> Heterogeneously Hyperpolarized by Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28234-28243.  | 1.5 | 71        |
| 31 | Effect of Pd/C dispersion on its catalytic properties in acetylene and vinylacetylene hydrogenation. <i>Applied Catalysis</i> , 1989, 54, 277-288.   | 1.1 | 70        |
| 32 | Nanodispersed Au/Al <sub>2</sub> O <sub>3</sub> catalysts for low-temperature CO oxidation: Results of research activity at the Boreskov Institute of Catalysis. <i>Catalysis Today</i> , 2009, 144, 292-305.                                    | 2.2 | 70        |
| 33 | Redox mechanism for selective oxidation of ethanol over monolayer V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> catalysts. <i>Journal of Catalysis</i> , 2016, 338, 82-93.   | 3.1 | 70        |
| 34 | X-ray photoelectron spectroscopy as a tool for in-situ study of the mechanisms of heterogeneous catalytic reactions. <i>Topics in Catalysis</i> , 2005, 32, 3-15.  | 1.3 | 69        |
| 35 | Aerobic selective oxidation of glucose to gluconate catalyzed by Au/Al <sub>2</sub> O <sub>3</sub> and Au/C: Impact of the mass-transfer processes on the overall kinetics. <i>Chemical Engineering Journal</i> , 2013, 223, 921-931.            | 6.6 | 68        |
| 36 | XPS study of the silica-supported Fe-containing catalysts for deep or partial H <sub>2</sub> S oxidation. <i>Journal of Molecular Catalysis A</i> , 2000, 158, 251-255.  | 4.8 | 67        |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 37 | Role of Different Active Sites in Heterogeneous Alkene Hydrogenation on Platinum Catalysts Revealed by Means of Parahydrogen-Induced Polarization. <i>Journal of Physical Chemistry C</i> , 2011, 115, 13386-13391.  | 1.5  | 66        |
| 38 | SiCN alloys obtained by remote plasma chemical vapour deposition from novel precursors. <i>Thin Solid Films</i> , 2003, 429, 144-151.  | 0.8  | 60        |
| 39 | H <sub>2</sub> O <sub>2</sub> -based selective oxidations over titaniumsilicates of SBA-15 type. <i>Microporous and Mesoporous Materials</i> , 2003, 59, 73-84.  | 2.2  | 59        |
| 40 | Heterogeneous Microtesla SABRE Enhancement of <sup>15</sup> N NMR Signals. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 10433-10437.   | 7.2  | 58        |
| 41 | The Nature of Electrophilic and Nucleophilic Oxygen Adsorbed on Silver. <i>Kinetics and Catalysis</i> , 2003, 44, 432-440.   | 0.3  | 56        |
| 42 | Heterogeneous addition of H <sub>2</sub> to double and triple bonds over supported Pd catalysts: a parahydrogen-induced polarization technique study. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 11008.  | 1.3  | 56        |
| 43 | Effect of <sup>13</sup> -Al <sub>2</sub> O <sub>3</sub> hydrothermal treatment on the formation and properties of platinum sites in Pt/ <sup>13</sup> -Al <sub>2</sub> O <sub>3</sub> catalysts. <i>Applied Catalysis A: General</i> , 2014, 469, 472-482. | 2.2  | 56        |
| 44 | Strong Metal-Support Interactions for Palladium Supported on TiO <sub>2</sub> Catalysts in the Heterogeneous Hydrogenation with Parahydrogen. <i>ChemCatChem</i> , 2015, 7, 2581-2584.   | 1.8  | 54        |
| 45 | XPS, TPD and TPR studies of Cs-O complexes on silver: their role in ethylene epoxidation. <i>Journal of Molecular Catalysis A</i> , 2000, 158, 337-343.  | 4.8  | 53        |
| 46 | Selective vapour-phase $\alpha$ -pinene isomerization to camphene over gold-on-alumina catalyst. <i>Applied Catalysis A: General</i> , 2010, 385, 136-143.   | 2.2  | 53        |
| 47 | Model Ag/HOPG catalysts: preparation and STM/XPS study. <i>Catalysis Science and Technology</i> , 2011, 1, 1432.   | 2.1  | 53        |
| 48 | Influence of ceria on the NO <sub>x</sub> reduction performance of NO <sub>x</sub> storage reduction catalysts. <i>Applied Catalysis B: Environmental</i> , 2013, 142-143, 89-100.   | 10.8 | 53        |
| 49 | Study of reactivity of oxygen states adsorbed at a silver surface towards C <sub>2</sub> H <sub>4</sub> by XPS, TPD and TPR. <i>Surface Science</i> , 1994, 320, L47-L50.  | 0.8  | 52        |
| 50 | One-pot reductive amination of aldehydes with nitroarenes over an Au/Al <sub>2</sub> O <sub>3</sub> catalyst in a continuous flow reactor. <i>Catalysis Science and Technology</i> , 2015, 5, 4741-4745.   | 2.1  | 51        |
| 51 | Liquid-phase hydrogenation of benzaldehyde over Pd-Ru/C catalysts: Synergistic effect between supported metals. <i>Catalysis Today</i> , 2017, 279, 2-9.   | 2.2  | 51        |
| 52 | Platinum nanoparticle size effect on specific catalytic activity in n-alkane deep oxidation: Dependence on the chain length of the paraffin. <i>Kinetics and Catalysis</i> , 2009, 50, 830-836.  | 0.3  | 50        |
| 53 | XPS/STM study of model bimetallic Pd-Au/HOPG catalysts. <i>Applied Surface Science</i> , 2016, 367, 214-221.   | 3.1  | 50        |
| 54 | Selective Single-Site Pd-In Hydrogenation Catalyst for Production of Enhanced Magnetic Resonance Signals using Parahydrogen. <i>Chemistry - A European Journal</i> , 2018, 24, 2547-2553.  | 1.7  | 50        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Electronic state of ruthenium deposited onto oxide supports: An XPS study taking into account the final state effects. Applied Surface Science, 2011, 258, 1541-1550.   | 3.1 | 48        |
| 56 | Interaction of SO <sub>2</sub> with Pt Model Supported Catalysts Studied by XPS. Journal of Physical Chemistry C, 2014, 118, 22120-22135.   | 1.5 | 48        |
| 57 | Electronic state of cobalt and oxygen ions in stoichiometric and nonstoichiometric Li <sub>1+x</sub> CoO <sub>2</sub> before and after delithiation according to XPS and DRS. Journal of Power Sources, 2003, 119-121, 669-673. | 4.0 | 46        |
| 58 | Vapour phase formic acid decomposition over PdAu/Al <sub>2</sub> O <sub>3</sub> catalysts: Effect of composition of metallic particles. Journal of Catalysis, 2013, 299, 171-180.   | 3.1 | 45        |
| 59 | <i>In situ</i> formation of the active sites in PdAu bimetallic nanocatalysts for CO oxidation: NAP (near ambient pressure) XPS and MS study. Faraday Discussions, 2018, 208, 255-268.  | 1.6 | 45        |
| 60 | C-O bond scission on defect-rich and perfect Pd(111). Surface Science, 2004, 566-568, 1024-1029.  | 0.8 | 44        |
| 61 | Two oxygen states and the role of carbon in partial oxidation of ethylene over silver. Surface Science, 1990, 232, L205-L209.   | 0.8 | 43        |
| 62 | In situ study of selective oxidation of methanol to formaldehyde over copper. Reaction Kinetics and Catalysis Letters, 2003, 79, 181-188.   | 0.6 | 43        |
| 63 | Title is missing!. Catalysis Letters, 2001, 74, 121-125.  | 1.4 | 42        |
| 64 | CO dissociation and CO hydrogenation on smooth and ion-bombarded Pd(111): SFG and XPS spectroscopy at mbar pressures. Applied Surface Science, 2004, 235, 26-31.  | 3.1 | 42        |
| 65 | In situ XPS and MS study of methanol decomposition and oxidation on Pd(111) under millibar pressure range. Surface Science, 2012, 606, 420-425.   | 0.8 | 42        |
| 66 | The combined application of XPS and TPD to study of oxygen adsorption on graphite-supported silver clusters. Journal of Molecular Catalysis A, 2000, 158, 167-172.  | 4.8 | 40        |
| 67 | Aqueous, Heterogeneous <i>NO</i> -Hydrogen-Induced <sup>15</sup> N Polarization. Journal of Physical Chemistry C, 2017, 121, 15304-15309.   | 1.5 | 40        |
| 68 | 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.   | 1.5 | 40        |
| 69 | Size effect in the oxidation of platinum nanoparticles on graphite with nitrogen dioxide: An XPS and STM study. Kinetics and Catalysis, 2014, 55, 354-360.  | 0.3 | 38        |
| 70 | CO <sub>2</sub> activation on ultrathin ZrO <sub>2</sub> film by H <sub>2</sub> O co-adsorption: In situ NAP-XPS and IRAS studies. Surface Science, 2019, 679, 139-146.   | 0.8 | 38        |
| 71 | An XPS study of the composition of iridium films obtained by MO CVD. Surface Science, 1992, 275, 323-331.   | 0.8 | 36        |
| 72 | Evaluation of the Mechanism of Heterogeneous Hydrogenation of $\alpha,\beta$ -Unsaturated Carbonyl Compounds via Pairwise Hydrogen Addition. ACS Catalysis, 2014, 4, 2022-2028.   | 5.5 | 36        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 73 | Production of Pure Aqueous $^{13}\text{C}$ -Hyperpolarized Acetate by Heterogeneous Parahydrogen-Induced Polarization. <i>Chemistry - A European Journal</i> , 2016, 22, 16446-16449.                                 | 1.7 | 36        |
| 74 | Decomposition of ethylene and a mechanism of graphite formation on the Pt(110) surface. <i>Surface Science</i> , 1991, 258, 289-301.  | 0.8 | 35        |
| 75 | Modern trends in the development of surface science as applied to catalysis. The elucidation of the structure-activity relationships in heterogeneous catalysts. <i>Russian Chemical Reviews</i> , 2007, 76, 553-581. | 2.5 | 35        |
| 76 | New binary systems $\text{Mg}-\text{MO}$ (M=Y, La, Ce): Synthesis and physico-chemical characterization. <i>Journal of Solid State Chemistry</i> , 2005, 178, 3265-3274.  | 1.4 | 34        |
| 77 | Synthesis of secondary amines by reductive amination of aldehydes with nitroarenes over supported copper catalysts in a flow reactor. <i>Catalysis Communications</i> , 2017, 102, 108-113.                           | 1.6 | 34        |
| 78 | Chemical vapor infiltration method for deposition of gold nanoparticles on porous alumina supports. <i>Journal of Structural Chemistry</i> , 2006, 47, 458-464.   | 0.3 | 33        |
| 79 | Oxidation of propylene over Pd(5 5 1): Temperature hysteresis induced by carbon deposition and oxygen adsorption. <i>Catalysis Today</i> , 2015, 244, 29-35.  | 2.2 | 33        |
| 80 | Concentration Hysteresis in the Oxidation of Methane over $\text{Pt}/\text{Al}_2\text{O}_3$ : X-ray Absorption Spectroscopy and Kinetic Study. <i>ACS Catalysis</i> , 2015, 5, 2795-2804.                             | 5.5 | 33        |
| 81 | Chemical Exchange Reaction Effect on Polarization Transfer Efficiency in SLIC-SABRE. <i>Journal of Physical Chemistry A</i> , 2018, 122, 9107-9114.   | 1.1 | 33        |
| 82 | X-ray photoelectron spectroscopic study of the interaction of supported metal catalysts with $\text{NO}_x$ . <i>Journal of Structural Chemistry</i> , 2007, 48, 1053-1060.  | 0.3 | 31        |
| 83 | 2D Mapping of NMR Signal Enhancement and Relaxation for Heterogeneously Hyperpolarized Propane Gas. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10038-10046.  | 1.5 | 31        |
| 84 | Effect of the calcination temperature on the properties of $\text{Fe}_2\text{O}_3/\text{SiO}_2$ catalysts for oxidation of hydrogen sulfide. <i>Reaction Kinetics and Catalysis Letters</i> , 2007, 92, 89-97.        | 0.6 | 30        |
| 85 | An XPS Study of the Promotion of Ru-Cs/Sibunit Catalysts for Ammonia Synthesis. <i>Kinetics and Catalysis</i> , 2005, 46, 597-602.  | 0.3 | 28        |
| 86 | Toward production of pure $^{13}\text{C}$ hyperpolarized metabolites using heterogeneous parahydrogen-induced polarization of ethyl- $^{13}\text{C}$ acetate. <i>RSC Advances</i> , 2016, 6, 69728-69732.             | 1.7 | 28        |
| 87 | Title is missing!. <i>Kinetics and Catalysis</i> , 2003, 44, 575-583.   | 0.3 | 27        |
| 88 | Application of near ambient pressure gas-phase X-ray photoelectron spectroscopy to the investigation of catalytic properties of copper in methanol oxidation. <i>Applied Surface Science</i> , 2016, 363, 303-309.    | 3.1 | 27        |
| 89 | Propane Oxidation Over $\text{Pd}/\text{Al}_2\text{O}_3$ : Kinetic and In Situ XPS Study. <i>Topics in Catalysis</i> , 2017, 60, 190-197.   | 1.3 | 27        |
| 90 | Robust Imidazole- $^{15}\text{N}$ Synthesis for High-Resolution Low-Field ( $0.05\text{ T}$ ) $^{15}\text{N}$ -Hyperpolarized NMR Spectroscopy. <i>ChemistrySelect</i> , 2017, 2, 4478-4483.                          | 0.7 | 27        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 91  | Heterogeneous Microtesla SABRE Enhancement of $^{15}\text{N}$ NMR Signals. <i>Angewandte Chemie</i> , 2017, 129, 10569-10573.   | 1.6 | 27        |
| 92  | Single-Site Heterogeneous Catalysts: From Synthesis to NMR Signal Enhancement. <i>Chemistry - A European Journal</i> , 2019, 25, 1420-1431.   | 1.7 | 27        |
| 93  | Comparative Study of Rubidium and Cesium as Promoters in Carbon-supported Ruthenium Catalysts for Ammonia Synthesis. <i>Catalysis Letters</i> , 2008, 120, 204-209.   | 1.4 | 26        |
| 94  | Selective Liquid-Phase Hydrogenation of a Nitro Group in Substituted Nitrobenzenes over Au/Al <sub>2</sub> O <sub>3</sub> Catalyst in a Packed-Bed Flow Reactor. <i>ChemPlusChem</i> , 2015, 80, 1741-1749.                             | 1.3 | 26        |
| 95  | SOx uptake and release properties of TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> and BaO/TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> mixed oxide systems as NOx storage materials. <i>Catalysis Today</i> , 2012, 184, 54-71. | 2.2 | 25        |
| 96  | An XPS study of the oxidation of noble metal particles evaporated onto the surface of an oxide support in their reaction with NO <sub>x</sub> . <i>Kinetics and Catalysis</i> , 2012, 53, 117-124.                                      | 0.3 | 25        |
| 97  | Selective oxidation of formaldehyde to formic acid over supported vanadia catalysts. <i>Applied Catalysis A: General</i> , 2014, 475, 98-108.   | 2.2 | 25        |
| 98  | Using X-ray Photoelectron Spectroscopy To Evaluate Size of Metal Nanoparticles in the Model Au/C Samples. <i>Journal of Physical Chemistry C</i> , 2016, 120, 10419-10426.  | 1.5 | 25        |
| 99  | The origin of self-sustained reaction-rate oscillations in the oxidation of methane over nickel: an operando XRD and mass spectrometry study. <i>Catalysis Science and Technology</i> , 2017, 7, 1646-1649.                             | 2.1 | 25        |
| 100 | Application of differential charging for analysis of electronic properties of supported silver. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1996, 77, 7-13.   | 0.8 | 24        |
| 101 | The role of support in formation of the manganese-bismuth oxide catalyst for synthesis of nitrous oxide through oxidation of ammonia with oxygen. <i>Journal of Catalysis</i> , 2004, 221, 213-224.                                     | 3.1 | 24        |
| 102 | Preparation of Ag/HOPG model catalysts with a variable particle size and an in situ xps study of their catalytic properties in ethylene oxidation. <i>Kinetics and Catalysis</i> , 2011, 52, 855-861.                                   | 0.3 | 24        |
| 103 | In-situ XPS investigation of nitric oxide adsorption on (111), (310), and (533) gold single crystal faces. <i>Surface Science</i> , 2012, 606, 559-563.   | 0.8 | 24        |
| 104 | Alumina-supported platinum catalysts: Local atomic structure and catalytic activity for complete methane oxidation. <i>Applied Catalysis A: General</i> , 2014, 486, 12-18.   | 2.2 | 24        |
| 105 | Catalysis and Nuclear Magnetic Resonance Signal Enhancement with Parahydrogen. <i>Topics in Catalysis</i> , 2016, 59, 1686-1699.  | 1.3 | 24        |
| 106 | In Situ Study of the Selective Oxidation of Methanol to Formaldehyde on Copper. <i>Kinetics and Catalysis</i> , 2003, 44, 662-668.  | 0.3 | 23        |
| 107 | Chapter 9. Ethylene Epoxidation over Silver Catalysts. <i>RSC Nanoscience and Nanotechnology</i> , 2011, , 214-247.   | 0.2 | 23        |
| 108 | Active component of supported vanadium catalysts in the selective oxidation of methanol. <i>Kinetics and Catalysis</i> , 2016, 57, 82-94.   | 0.3 | 23        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 109 | Activation of the C-O bond on the surface of palladium: An In situ study by X-ray photoelectron spectroscopy and sum frequency generation. <i>Kinetics and Catalysis</i> , 2005, 46, 269-281.  | 0.3 | 22        |
| 110 | XPS study of gold oxidation with nitrogen dioxide in model Au/C samples. <i>Kinetics and Catalysis</i> , 2015, 56, 796-800.  | 0.3 | 22        |
| 111 | An XPS and STM study of the size effect in NO adsorption on gold nanoparticles. <i>Russian Chemical Bulletin</i> , 2011, 60, 1977-1984.  | 0.4 | 21        |
| 112 | Origin of temperature oscillations of nickel catalyst occurring in methane oxidation. <i>Kinetics and Catalysis</i> , 2015, 56, 598-604.   | 0.3 | 21        |
| 113 | CO-induced segregation as an efficient tool to control the surface composition and catalytic performance of PdAg <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> catalyst. <i>Mendeleev Communications</i> , 2019, 29, 547-549.                               | 0.6 | 21        |
| 114 | In Situ XPS and MS Study of Methane Oxidation on the Pd/Pt/Al <sub>2</sub> O <sub>3</sub> Catalysts. <i>Topics in Catalysis</i> , 2020, 63, 66-74.   | 1.3 | 21        |
| 115 | Formation of Ru/M/Sibunit Catalysts for Ammonia Synthesis. <i>Kinetics and Catalysis</i> , 2004, 45, 414-421.  | 0.3 | 20        |
| 116 | Propane oxidation on nickel in a self-oscillation mode. <i>Kinetics and Catalysis</i> , 2005, 46, 251-259.   | 0.3 | 20        |
| 117 | XAFS study of Pt/Al <sub>2</sub> O <sub>3</sub> nanosystem with metal-oxide active component. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 603, 108-110. | 0.7 | 20        |
| 118 | Heterogeneous catalysts for the transformation of fatty acid triglycerides and their derivatives to fuel hydrocarbons. <i>Russian Chemical Reviews</i> , 2011, 80, 911-925.  | 2.5 | 20        |
| 119 | Hydrogenation of Unsaturated Six-Membered Cyclic Hydrocarbons Studied by the Parahydrogen-Induced Polarization Technique. <i>Journal of Physical Chemistry C</i> , 2016, 120, 13541-13548.   | 1.5 | 20        |
| 120 | The effect of oxidative and reductive treatments of titania-supported metal catalysts on the pairwise hydrogen addition to unsaturated hydrocarbons. <i>Catalysis Today</i> , 2017, 283, 82-88.  | 2.2 | 20        |
| 121 | New Pt/Alumina model catalysts for STM and in situ XPS studies. <i>Applied Surface Science</i> , 2017, 401, 341-347.   | 3.1 | 20        |
| 122 | Formation of supported intermetallic nanoparticles in the Pd/Zn/Al <sub>2</sub> O <sub>3</sub> catalyst. <i>Kinetics and Catalysis</i> , 2017, 58, 471-479.  | 0.3 | 20        |
| 123 | Mechanistic Insight into the Heterogeneous Hydrogenation of Furan Derivatives with the use of Parahydrogen. <i>ChemCatChem</i> , 2018, 10, 1178-1183.  | 1.8 | 20        |
| 124 | An XPS and STM Study of Oxidized Platinum Particles Formed by the Interaction between Pt/HOPG with NO <sub>2</sub> . <i>Kinetics and Catalysis</i> , 2018, 59, 653-662.  | 0.3 | 20        |
| 125 | Nanosized Au/C catalyst obtained from a tetraamminegold(III) precursor: Synthesis, characterization, and catalytic activity in low-temperature CO oxidation. <i>Kinetics and Catalysis</i> , 2010, 51, 885-892.  | 0.3 | 19        |
| 126 | Are Au Nanoparticles on Oxygen-Free Supports Catalytically Active?. <i>Topics in Catalysis</i> , 2016, 59, 469-477.  | 1.3 | 19        |



| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 127 | Model Bimetallic Pd–Ag/HOPG Catalysts: An XPS and STM Study. <i>Kinetics and Catalysis</i> , 2018, 59, 776-785.  | 0.3  | 19        |
| 128 | Heterogeneous Parahydrogen Pairwise Addition to Cyclopropane. <i>ChemPhysChem</i> , 2018, 19, 2621-2626.   | 1.0  | 19        |
| 129 | Dependence of the catalytic activity of Ag/Al <sub>2</sub> O <sub>3</sub> on the silver concentration in the selective reduction of NO <sub>x</sub> with n-hexane in the presence of H <sub>2</sub> . <i>Kinetics and Catalysis</i> , 2012, 53, 107-116. | 0.3  | 18        |
| 130 | The model thin film alumina catalyst support suitable for catalysis-oriented surface science studies. <i>Applied Surface Science</i> , 2015, 349, 310-318.   | 3.1  | 18        |
| 131 | Synthesis of unsaturated secondary amines by direct reductive amination of aliphatic aldehydes with nitroarenes over Au/Al <sub>2</sub> O <sub>3</sub> catalyst in continuous flow mode. <i>RSC Advances</i> , 2016, 6, 88366-88372.                     | 1.7  | 18        |
| 132 | Relaxation Dynamics of Nuclear Long-Lived Spin States in Propane and Propane-d <sub>6</sub> Hyperpolarized by Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2019, 123, 11734-11744.   | 1.5  | 18        |
| 133 | Deciphering the Nature of Ru Sites in Reductively Exsolved Oxides with Electronic and Geometric Metal–Support Interactions. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25299-25307.   | 1.5  | 18        |
| 134 | Mechanistic <i>in situ</i> investigation of heterogeneous hydrogenation over Rh/TiO <sub>2</sub> catalysts: selectivity, pairwise route and catalyst nature. <i>Faraday Discussions</i> , 2021, 229, 161-175.  | 1.6  | 18        |
| 135 | ARXPS-based concentration profiles restoration applied to adsorbate/metal systems. <i>Surface Science</i> , 1992, 271, 493-500.  | 0.8  | 17        |
| 136 | Electrodeposited Pd Sub-Monolayers on Carbon-Supported Au Particles of Few Nanometers in Size: Electrocatalytic Activity for Hydrogen Oxidation and CO Tolerance Vs. Pd Coverage. <i>Electrocatalysis</i> , 2012, 3, 119-131.                            | 1.5  | 17        |
| 137 | Kinetic Study of Propylene Hydrogenation over Pt/Al <sub>2</sub> O <sub>3</sub> by Parahydrogen-Induced Polarization. <i>Applied Magnetic Resonance</i> , 2013, 44, 279-288.   | 0.6  | 17        |
| 138 | Studies on three-way catalysis with supported gold catalysts. Influence of support and water content in feed. <i>Applied Catalysis B: Environmental</i> , 2017, 203, 572-581.  | 10.8 | 17        |
| 139 | Bimetallic Pd–Au/Highly Oriented Pyrolytic Graphite Catalysts: from Composition to Pairwise Parahydrogen Addition Selectivity. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18588-18595.  | 1.5  | 17        |
| 140 | Enhanced catalytic activity for hydrogen electrooxidation and CO tolerance of carbon-supported non-stoichiometric palladium carbides. <i>Journal of Molecular Catalysis A</i> , 2012, 353-354, 204-214.  | 4.8  | 16        |
| 141 | Size effect in the liquid phase semihydrogenation of substituted alkynes over supported Pd/Al <sub>2</sub> O <sub>3</sub> catalysts. <i>Mendeleev Communications</i> , 2015, 25, 367-369.  | 0.6  | 16        |
| 142 | <i>In Situ</i> NAP-XPS and Mass Spectrometry Study of the Oxidation of Propylene over Palladium. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4315-4323.  | 1.5  | 16        |
| 143 | Spatially resolved NMR spectroscopy of heterogeneous gas phase hydrogenation of 1,3-butadiene with <i>para</i> -hydrogen. <i>Catalysis Science and Technology</i> , 2020, 10, 99-104.  | 2.1  | 16        |
| 144 | Experimental and theoretical analysis of particle size effect in liquid-phase hydrogenation of diphenylacetylene. <i>Chemical Engineering Journal</i> , 2021, 404, 126409.   | 6.6  | 16        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 145 | Effect of the Support on the Nature of Metal-Promoter Interactions in Ru-Cs+/MgO and Ru-Cs+-Al <sub>2</sub> O <sub>3</sub> Catalysts for Ammonia Synthesis. <i>Kinetics and Catalysis</i> , 2005, 46, 891-899.   | 0.3 | 15        |
| 146 | Growth of nitrogen-doped carbon nanotubes and fibers over a gold-on-alumina catalyst. <i>Carbon</i> , 2012, 50, 1186-1196.   | 5.4 | 15        |
| 147 | Mobility and reactivity of lattice oxygen in Gd-doped ceria promoted by Pt. <i>Reaction Kinetics and Catalysis Letters</i> , 2005, 85, 367-374.  | 0.6 | 14        |
| 148 | Mobility and reactivity of the lattice oxygen of Pr-doped ceria promoted with Pt. <i>Reaction Kinetics and Catalysis Letters</i> , 2005, 86, 21-28.  | 0.6 | 14        |
| 149 | Use of the differential charging effect in XPS to determine the nature of surface compounds resulting from the interaction of a Pt/BaCO <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> model catalyst with NO <sub>x</sub> . <i>Kinetics and Catalysis</i> , 2008, 49, 831-839.  | 0.3 | 14        |
| 150 | An in situ cell for investigation of the catalyst structure using synchrotron radiation. <i>Journal of Structural Chemistry</i> , 2010, 51, 20-27.   | 0.3 | 14        |
| 151 | In situ XPS study of the size effect in the interaction of NO with the surface of the model Ag/Al <sub>2</sub> O <sub>3</sub> /FeCrAl catalysts. <i>Russian Chemical Bulletin</i> , 2015, 64, 2780-2785.   | 0.4 | 14        |
| 152 | A low-temperature method for measuring oxygen storage capacity of ceria-containing oxides. <i>Catalysis Science and Technology</i> , 2016, 6, 5891-5898.   | 2.1 | 14        |
| 153 | Title is missing!. <i>Kinetics and Catalysis</i> , 2001, 42, 837-846.  | 0.3 | 13        |
| 154 | Role of the Exposed Pt Active Sites and BaO <sub>2</sub> Formation in NO <sub>x</sub> Storage Reduction Systems: A Model Catalyst Study on BaO <sub>x</sub> /Pt(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 24256-24266.   | 1.5 | 13        |
| 155 | Mathematical simulation of self-oscillations in methane oxidation on nickel: An isothermal model. <i>Kinetics and Catalysis</i> , 2012, 53, 374-383.   | 0.3 | 13        |
| 156 | Size effect in the oxidation-reduction processes of platinum particles supported onto silicon dioxide. <i>Kinetics and Catalysis</i> , 2015, 56, 801-809.  | 0.3 | 13        |
| 157 | Flow synthesis of secondary amines over Ag/Al <sub>2</sub> O <sub>3</sub> catalyst by one-pot reductive amination of aldehydes with nitroarenes. <i>RSC Advances</i> , 2017, 7, 45856-45861.   | 1.7 | 13        |
| 158 | Unique stability of 1/4-hydroxo ligands in Pt(IV) complexes towards alkaline hydrolysis. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 603, 182-184.  | 0.7 | 12        |
| 159 | Direct Evidence for the Instability and Deactivation of Mixed-Oxide Systems: Influence of Surface Segregation and Subsurface Diffusion. <i>Journal of Physical Chemistry C</i> , 2011, 115, 22438-22443.   | 1.5 | 12        |
| 160 | H <sub>2</sub> -Induced NO <sub>x</sub> Adsorption/Desorption over Ag/Al <sub>2</sub> O <sub>3</sub> : Transient Experiments and TPD Study. <i>Topics in Catalysis</i> , 2011, 54, 1190-1196.  | 1.3 | 12        |
| 161 | Interactive Surface Chemistry of CO <sub>2</sub> and NO <sub>2</sub> on Metal Oxide Surfaces: Competition for Catalytic Adsorption Sites and Reactivity. <i>Journal of Physical Chemistry C</i> , 2013, 117, 7713-7720.  | 1.5 | 12        |
| 162 | Formation of platinum sites on layered double hydroxide type basic supports: III. Effect of the mechanism of [PtCl <sub>6</sub> ] <sup>2-</sup> complex binding to aluminum-magnesium layered double hydroxides on the properties of supported platinum in Pt/MgAlO <sub>x</sub> catalysts. <i>Kinetics and Catalysis</i> , 2014, 55, 786-792. | 0.3 | 12        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 163 | Oxide-free InAs(111)A interface in metal-oxide-semiconductor structure with very low density of states prepared by anodic oxidation. Applied Physics Letters, 2014, 105, .  | 1.5  | 12        |
| 164 | Interaction of silica-supported small silver clusters with molecular oxygen. A computational study. Surface Science, 2014, 630, 265-272.  | 0.8  | 12        |
| 165 | Nanocatalysis: A bibliometric analysis. Kinetics and Catalysis, 2014, 55, 1-11.   | 0.3  | 12        |
| 166 | Analysis of the oxidation state of platinum particles in supported catalysts by double differentiation of XPS lines. Journal of Structural Chemistry, 2016, 57, 1127-1133.  | 0.3  | 12        |
| 167 | Influence of preparation conditions on catalytic activity and stability of platinum on alumina catalysts in methane oxidation. Applied Catalysis A: General, 2018, 566, 174-180.  | 2.2  | 12        |
| 168 | Heterogeneous hydrogenation of phenylalkynes with parahydrogen: hyperpolarization, reaction selectivity, and kinetics. Physical Chemistry Chemical Physics, 2019, 21, 26477-26482.  | 1.3  | 12        |
| 169 | Three-way catalysis with bimetallic supported Pd-Au catalysts: Gold as a poison and as a promotor. Applied Catalysis B: Environmental, 2021, 282, 119614.   | 10.8 | 12        |
| 170 | Heterogeneous Parahydrogen-Induced Polarization of Diethyl Ether for Magnetic Resonance Imaging Applications. Chemistry - A European Journal, 2021, 27, 1316-1322.  | 1.7  | 12        |
| 171 | Size effects in catalysis by supported metal nanoparticles. Catalysis in Industry, 2009, 1, 17-28.  | 0.3  | 11        |
| 172 | Oxidation of a platinum foil with nitrogen dioxide. Kinetics and Catalysis, 2016, 57, 826-830.  | 0.3  | 11        |
| 173 | Study of Catalyst Deactivation in Liquid-Phase Hydrogenation of 3-Nitrostyrene Over Au/Al <sub>2</sub> O <sub>3</sub> Catalyst in Flow Reactor. Catalysis Letters, 2017, 147, 572-580.  | 1.4  | 11        |
| 174 | In Situ Study of Self-sustained Oscillations in Propane Oxidation and Propane Steam Reforming with Oxygen Over Nickel. Catalysis Letters, 2019, 149, 313-321.   | 1.4  | 11        |
| 175 | Effect of La Addition on the Performance of Three-Way Catalysts Containing Palladium and Rhodium. Topics in Catalysis, 2020, 63, 152-165.   | 1.3  | 11        |
| 176 | Parahydrogen-Induced Polarization of Diethyl Ether Anesthetic. Chemistry - A European Journal, 2020, 26, 13621-13626.   | 1.7  | 11        |
| 177 | Anchored complexes of rhodium and iridium for the hydrogenation of alkynes and olefins with parahydrogen. Catalysis Science and Technology, 2022, 12, 3247-3253.  | 2.1  | 11        |
| 178 | Combined application of XANES and XPS to study oxygen species adsorbed on Ag foil. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 470, 302-305.                   | 0.7  | 10        |
| 179 | Reaction of CO oxidation on platinum, rhodium, a platinum-rhodium alloy, and a heterophase bimetallic platinum/rhodium surface. Kinetics and Catalysis, 2007, 48, 298-304.  | 0.3  | 10        |
| 180 | Small gold species supported on alumina. A computational study of $\text{Au}_{13}$ on $\text{Al}_2\text{O}_3(0001)$ and $\text{Al}_2\text{O}_3(001)$ using an embedded-cluster approach. Physica Status Solidi (B): Basic Research, 2010, 247, 1023-1031. | 0.7  | 10        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 181 | Enhanced Sulfur Tolerance of Ceria-Promoted NO <sub>x</sub> Storage Reduction (NSR) Catalysts: Sulfur Uptake, Thermal Regeneration and Reduction with H <sub>2</sub> (g). Topics in Catalysis, 2013, 56, 950-957.   | 1.3 | 10        |
| 182 | Decomposition and oxidation of methanol on platinum: A study by in situ X-ray photoelectron spectroscopy and mass spectrometry. Kinetics and Catalysis, 2014, 55, 509-519.  | 0.3 | 10        |
| 183 | One-Pot Synthesis of Secondary Amines from Nitroarenes and Aldehydes on Supported Copper Catalysts in a Flow Reactor: The Effect of the Support. Kinetics and Catalysis, 2018, 59, 593-600.   | 0.3 | 10        |
| 184 | Particle-Size Effect in Catalytic Oxidation Over Pt Nanoparticles. , 2019, , 295-320.   |     | 10        |
| 185 | Thermography study of propane oxidation to synthesis-gas over nickel. Chemical Engineering Journal, 2005, 107, 33-38.   | 6.6 | 9         |
| 186 | Effect of Pt nanoparticle size on the specific catalytic activity of Pt/SiO <sub>2</sub> and Pt/TiO <sub>2</sub> in the total oxidation of methane and n-butane. Russian Chemical Bulletin, 2010, 59, 1713-1719.  | 0.4 | 9         |
| 187 | Effect of oxygen adsorption on the surface plasmon resonance of oxide-supported silver nanoparticles. Doklady Physical Chemistry, 2011, 436, 23-25.   | 0.2 | 9         |
| 188 | Formation of anodic layers on InAs (111)III. Study of the chemical composition. Semiconductors, 2012, 46, 552-558.  | 0.2 | 9         |
| 189 | Liquid-phase hydrogenation of diphenylacetylene on Pd-Au/Al <sub>2</sub> O <sub>3</sub> bimetallic catalysts. Russian Chemical Bulletin, 2015, 64, 53-57.   | 0.4 | 9         |
| 190 | Reversible Bulk Oxidation of Ni Foil During Oscillatory Catalytic Oxidation of Propane: A Novel Type of Spatiotemporal Self-Organization. Physical Review Letters, 2017, 119, 026001.   | 2.9 | 9         |
| 191 | Formation of Surface Platinum Oxides in the Interaction of the Pt/Sibunit Catalysts with NO <sub>2</sub> : Estimates of the Width of Oxide Shell from XPS Data. Kinetics and Catalysis, 2018, 59, 663-671.  | 0.3 | 9         |
| 192 | Heterogeneous <sup>1</sup> H and <sup>13</sup> C Parahydrogen-Induced Polarization of Acetate and Pyruvate Esters. ChemPhysChem, 2021, 22, 1389-1396.   | 1.0 | 9         |
| 193 | The state of oxygen on the surface of polycrystalline silver. Reaction Kinetics and Catalysis Letters, 1989, 39, 21-26.   | 0.6 | 8         |
| 194 | Use of the differential charging effect in XPS to determine the nature of surface compounds resulting from the interaction of a Pt/(BaCO <sub>3</sub> + CeO <sub>2</sub> ) model catalyst with SO <sub>x</sub> . Kinetics and Catalysis, 2011, 52, 595-604. | 0.3 | 8         |
| 195 | Experimental Study and Mathematical Modeling of Self-Sustained Kinetic Oscillations in Catalytic Oxidation of Methane over Nickel. Journal of Physical Chemistry A, 2017, 121, 6874-6886.   | 1.1 | 8         |
| 196 | An XPS Study of the Interaction of a Palladium Foil with NO <sub>2</sub> . Kinetics and Catalysis, 2018, 59, 786-791.   | 0.3 | 8         |
| 197 | Size Effect in Silver Oxidation By Nitrogen Dioxide. Journal of Structural Chemistry, 2018, 59, 1726-1729.  | 0.3 | 8         |
| 198 | Atomic scale structural defects in the graphite layer for model catalysis. Surface Science, 2018, 677, 90-92.   | 0.8 | 8         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 199 | Effect of Mono-, Di-, and Triethylene Glycol on the Activity of Phosphate-Doped NiMo/Al <sub>2</sub> O <sub>3</sub> Hydrotreating Catalysts. <i>Catalysts</i> , 2019, 9, 96.   | 1.6 | 8         |
| 200 | Pd-Cu/HOPG and Pd-Ag/HOPG Model Catalysts in CO and Methanol Oxidations at Submillibar Pressures. <i>Kinetics and Catalysis</i> , 2019, 60, 832-841.   | 0.3 | 8         |
| 201 | Mechanistic study of methanol oxidation on Pt(1 1 1) single crystal. <i>Applied Surface Science</i> , 2022, 579, 152140.   | 3.1 | 8         |
| 202 | Surface vanadium compounds in supported vanadium-magnesium catalysts for ethylene polymerization: X-ray photoelectron and infrared diffuse reflectance spectroscopy studies. <i>Journal of Molecular Catalysis A</i> , 2000, 158, 443-446. | 4.8 | 7         |
| 203 | Title is missing!. <i>Kinetics and Catalysis</i> , 2003, 44, 420-431.  | 0.3 | 7         |
| 204 | XAS study on microstructure of Au nanoparticles deposited onto alumina. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 575, 105-108.       | 0.7 | 7         |
| 205 | Structure of catalytically active gold nanoparticles by XAFS spectroscopy. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012121.   | 0.3 | 7         |
| 206 | Concentration hysteresis in methane oxidation on nanosized platinum particles. <i>Doklady Physical Chemistry</i> , 2011, 439, 131-134.   | 0.2 | 7         |
| 207 | Nasal aerodynamics protects brain and lung from inhaled dust in subterranean diggers, <i>Ellobius talpinus</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20140919.                                     | 1.2 | 7         |
| 208 | Ferromagnetic HfO <sub>2</sub> /Si/GaAs interface for spin-polarimetry applications. <i>Applied Physics Letters</i> , 2015, 107, .   | 1.5 | 7         |
| 209 | Model sulfur-resistant NSR catalysts: An XPS study of the interaction of BaO/TiO <sub>2</sub> -ZrO <sub>2</sub> and Pt-BaO/TiO <sub>2</sub> -ZrO <sub>2</sub> with NO <sub>2</sub> . <i>Kinetics and Catalysis</i> , 2015, 56, 540-548.    | 0.3 | 7         |
| 210 | A versatile synthetic route to the preparation of <sup>15</sup> N heterocycles. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2019, 62, 892-902.   | 0.5 | 7         |
| 211 | The effect of Pd(II) chloride complexes anchoring on the formation and properties of Pd/MgAlO <sub>x</sub> catalysts. <i>Journal of Catalysis</i> , 2020, 392, 108-118.  | 3.1 | 7         |
| 212 | Investigation of concentration hysteresis in methane oxidation on bimetallic Pt-Pd/Al <sub>2</sub> O <sub>3</sub> catalyst by in situ XPS and mass spectrometry. <i>Mendeleev Communications</i> , 2021, 31, 635-637.                      | 0.6 | 7         |
| 213 | Silicon surface cleaning using XeF <sub>2</sub> gas treatment. <i>Applied Surface Science</i> , 1995, 90, 191-194.   | 3.1 | 6         |
| 214 | CO oxidation over the Pt-Rh system. 3. Reaction on a heterophase surface. <i>Reaction Kinetics and Catalysis Letters</i> , 2003, 78, 121-127.  | 0.6 | 6         |
| 215 | Structure of the active component and catalytic properties of catalysts prepared by the reduction of layered nickel aluminosilicates. <i>Kinetics and Catalysis</i> , 2006, 47, 412-422.   | 0.3 | 6         |
| 216 | Identification of gold oxide cluster structures in Au/Al <sub>2</sub> O <sub>3</sub> catalysts for low-temperature CO oxidation. <i>Doklady Physical Chemistry</i> , 2007, 413, 75-80.   | 0.2 | 6         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 217 | A new method for estimating the dispersity of deposited metallic nanoparticles and extent of their interaction with the support matrices. <i>Journal of Structural Chemistry</i> , 2010, 51, 1-10.                | 0.3 | 6         |
| 218 | Chemoselective hydrogenation of 3-nitrostyrene over Ag/TiO <sub>2</sub> -SiO <sub>2</sub> catalyst in a flow reactor. <i>Mendeleev Communications</i> , 2019, 29, 553-555.  | 0.6 | 6         |
| 219 | Glyphosate: Methods of Synthesis. <i>Kinetics and Catalysis</i> , 2021, 62, 331-341.  | 0.3 | 6         |
| 220 | Gas-Phase NMR of Hyperpolarized Propane with <sup>1</sup> H-to- <sup>13</sup> C Polarization Transfer by PH-INEPT. <i>Applied Magnetic Resonance</i> , 2022, 53, 653-669.   | 0.6 | 6         |
| 221 | CO oxidation over a Pt-Rh system. 1. Reaction on individual metals. <i>Reaction Kinetics and Catalysis Letters</i> , 2002, 77, 255-261.   | 0.6 | 5         |
| 222 | CO oxidation over the Pt-Rh system. 2. Reaction on an alloy. <i>Reaction Kinetics and Catalysis Letters</i> , 2003, 78, 107-112.  | 0.6 | 5         |
| 223 | Microfaceting and thermodynamic stability of the surface under chemisorption conditions. <i>Kinetics and Catalysis</i> , 2005, 46, 295-299.   | 0.3 | 5         |
| 224 | Selection of modifying additives for improving the steam tolerance of methane afterburning palladium catalysts. <i>Catalysis in Industry</i> , 2011, 3, 350-357.  | 0.3 | 5         |
| 225 | Peculiarities of aluminium interaction with Ga <sub>85</sub> In <sub>15</sub> eutectics as evidenced by X-ray synchrotron diagnostics. <i>Crystallography Reports</i> , 2012, 57, 693-699.                        | 0.1 | 5         |
| 226 | Influence of a precursor solution on the characteristics of platinum on alumina catalysts. <i>Mendeleev Communications</i> , 2017, 27, 70-71.   | 0.6 | 5         |
| 227 | The Reasons for Nonlinear Phenomena in Oxidation of Methane over Nickel. <i>Kinetics and Catalysis</i> , 2018, 59, 810-819.   | 0.3 | 5         |
| 228 | Sulfide Catalysts for Production of Motor Fuels from Fatty Acid Triglycerides. <i>Russian Journal of Applied Chemistry</i> , 2018, 91, 1905-1911.   | 0.1 | 5         |
| 229 | Nonclassical Adsorption of Methanol on Palladium: The Competition between Adsorption of Single Molecules and Clusters. <i>Journal of Physical Chemistry C</i> , 2019, 123, 7259-7265.                             | 1.5 | 5         |
| 230 | Hydrogen cartridge material based on aluminum commercial alloys activated by Ga-In eutectic. <i>Materials Today: Proceedings</i> , 2020, 25, 505-508.   | 0.9 | 5         |
| 231 | Room Temperature Oxidation of the Surface of Highly Oriented Pyrolytic Graphite (HOPG) with Nitrogen Dioxide in the Presence of Supported Palladium Particles. <i>Kinetics and Catalysis</i> , 2020, 61, 637-645. | 0.3 | 5         |
| 232 | Oscillatory Behavior in Oxidation of Propane Over Nickel Foil and Films. <i>Topics in Catalysis</i> , 2020, 63, 24-32.  | 1.3 | 5         |
| 233 | Room Temperature Interaction of NO <sub>2</sub> with Palladium Nanoparticles Supported on a Nonactivated Surface of Highly Oriented Pyrolytic Graphite (HOPG). <i>Kinetics and Catalysis</i> , 2020, 61, 907-911. | 0.3 | 5         |
| 234 | Pd on Nanodiamond/Graphene in Hydrogenation of Propyne with Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2021, 125, 27221-27229.  | 1.5 | 5         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 235 | Mechanisms of Methylenecyclobutane Hydrogenation over Supported Metal Catalysts Studied by Parahydrogen-Induced Polarization Technique. <i>ChemPhysChem</i> , 2022, 23, .   | 1.0 | 5         |
| 236 | Preparation of palladium catalysts via thermal decomposition of supported Pd(O) complexes. <i>Reaction Kinetics and Catalysis Letters</i> , 1989, 38, 109-114.  | 0.6 | 4         |
| 237 | X-ray photoelectron study of the interaction of H <sub>2</sub> and H <sub>2</sub> +O <sub>2</sub> mixtures on the Pt/MoO <sub>3</sub> model catalyst. <i>Journal of Structural Chemistry</i> , 2008, 49, 255-260.   | 0.3 | 4         |
| 238 | Vanadium-titanium oxides: Sol-gel synthesis and catalytic properties in chlorobenzene oxidation. <i>Kinetics and Catalysis</i> , 2008, 49, 446-450.   | 0.3 | 4         |
| 239 | Structural determination of palladous oxide- $\gamma$ -ceria nanosystem supported on $\gamma$ -alumina. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 603, 178-181.        | 0.7 | 4         |
| 240 | Study of the local structure of supported nanostructural platinum catalysts. <i>Journal of Structural Chemistry</i> , 2010, 51, 11-19.  | 0.3 | 4         |
| 241 | XPS for in situ study of the mechanisms of heterogeneous catalytic reactions. <i>Journal of Structural Chemistry</i> , 2011, 52, 90-101.  | 0.3 | 4         |
| 242 | Contribution of (NO <sub>3</sub> <sup>-</sup> ) <sub>surf</sub> Reduction to the Overall Mechanism of H <sub>2</sub> -Promoted n-C <sub>6</sub> H <sub>14</sub> -DeNO <sub>x</sub> Over Ag/Al <sub>2</sub> O <sub>3</sub> . <i>Topics in Catalysis</i> , 2013, 56, 187-192. | 1.3 | 4         |
| 243 | Comparison of thermal stability of gold nanoparticles deposited on Al <sub>2</sub> O <sub>3</sub> and Fe <sub>2</sub> O <sub>3</sub> in the CO + O <sub>2</sub> reaction medium. <i>Russian Chemical Bulletin</i> , 2014, 63, 2733-2736.                                    | 0.4 | 4         |
| 244 | AN XPS study of the interaction of model Ba/TiO <sub>2</sub> AND Ba/ZrO <sub>2</sub> NSR catalysts with NO <sub>2</sub> . <i>Journal of Structural Chemistry</i> , 2014, 55, 757-763.   | 0.3 | 4         |
| 245 | Effect of $\alpha$ - and $\beta$ -polymorphs of glycine on the intranasal delivery of manganese hydroxide nanoparticles into brain structures. <i>Doklady Biochemistry and Biophysics</i> , 2014, 454, 6-9.   | 0.3 | 4         |
| 246 | Bimetallic Pd-Pt/Al <sub>2</sub> O <sub>3</sub> catalysts for complete methane oxidation: the effect of the Pt: Pd ratio. <i>Russian Chemical Bulletin</i> , 2015, 64, 2802-2805.   | 0.4 | 4         |
| 247 | Effect of the composition of the reaction atmosphere on the thermal stability of highly dispersed gold particles on an oxide support (Au/Al <sub>2</sub> O <sub>3</sub> system). <i>Kinetics and Catalysis</i> , 2016, 57, 831-839.   | 0.3 | 4         |
| 248 | Thermal stability of Ag-Au, Cu-Au, and Ag-Cu bimetallic nanoparticles supported on highly oriented pyrolytic graphite. <i>Kinetics and Catalysis</i> , 2016, 57, 704-711.   | 0.3 | 4         |
| 249 | Nitrogen-doped alumina carrier for sintering resistant gold supported catalysts. <i>Mendelevov Communications</i> , 2018, 28, 601-602.  | 0.6 | 4         |
| 250 | Using Sr-XPS to Study the Preparation Features of M-Au/HOPG Model Catalysts (M = Pd, Ag, Cu). <i>Journal of Structural Chemistry</i> , 2019, 60, 45-52.   | 0.3 | 4         |
| 251 | Multilayer adsorption of methanol on platinum at low temperatures. <i>Applied Surface Science</i> , 2021, 535, 147717.  | 3.1 | 4         |
| 252 | Effect of mechanical activation on the reactivity of powder copper. <i>Inorganic Materials</i> , 2005, 41, 110-119.   | 0.2 | 3         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 253 | Mathematical modeling of self-oscillations in ethane oxidation over nickel. <i>Kinetics and Catalysis</i> , 2016, 57, 113-124.  | 0.3 | 3         |
| 254 | Scientific Heritage of Georgii Konstantinovich Boreskov. <i>Kinetics and Catalysis</i> , 2019, 60, 123-136.   | 0.3 | 3         |
| 255 | Effect of Mono-, Di-, and Triethylene Glycol on the Sulfidation Behavior of NiMo(P)/Al <sub>2</sub> O <sub>3</sub> Hydrotreating Catalysts. <i>Catalysis Letters</i> , 2019, 149, 3304-3311.  | 1.4 | 3         |
| 256 | Aqueous-Phase Oxidation of <i>N</i> -Substituted <i>N</i> -Phosphonomethyl Glycines into Glyphosate with Hydrogen Peroxide in the Presence of Carbon-Supported Gold Catalysts. <i>ChemistrySelect</i> , 2019, 4, 10756-10764.       | 0.7 | 3         |
| 257 | An XPS Study of the Interaction of Rhodium Foil with NO <sub>2</sub> . <i>Kinetics and Catalysis</i> , 2019, 60, 823-831.   | 0.3 | 3         |
| 258 | Bridging the Gap: From Homogeneous to Heterogeneous Parahydrogen-Induced Hyperpolarization and Beyond. <i>ChemPhysChem</i> , 2021, 22, 710-715.   | 1.0 | 3         |
| 259 | Supramolecular Effects and Systems in Catalysis. A Review. <i>Doklady Chemistry</i> , 2022, 502, 1-27.  | 0.2 | 3         |
| 260 | Mechanism of H <sub>2</sub> -promoted oxidation of nitrogen monoxide over Ag/Al <sub>2</sub> O <sub>3</sub> . <i>Mendeleev Communications</i> , 2011, 21, 274-276.  | 0.6 | 2         |
| 261 | Aerosol deposition in nasal passages of burrowing and ground rodents when breathing dust-laden air. <i>Biology Bulletin Reviews</i> , 2015, 5, 36-45.   | 0.3 | 2         |
| 262 | Kinetika i Kataliz: 55 years in the bibliometric dimension. <i>Kinetics and Catalysis</i> , 2016, 57, 1-16.   | 0.3 | 2         |
| 263 | Frontispiece: NMR Hyperpolarization Techniques of Gases. <i>Chemistry - A European Journal</i> , 2017, 23, .  | 1.7 | 2         |
| 264 | Deposition of [Ir(COD)(IMes)Cl] complex on the HOPG surface by means of evaporation in vacuum. <i>Surfaces and Interfaces</i> , 2021, 25, 101176.   | 1.5 | 2         |
| 265 | Room-Temperature Interaction of Nitrogen Dioxide with Rhodium Nanoparticles Supported on the Surface of Highly Oriented Pyrolytic Graphite (HOPG). <i>Kinetics and Catalysis</i> , 2021, 62, 664-674.                               | 0.3 | 2         |
| 266 | XPS study of ethylene adsorption on Ir (110). <i>Reaction Kinetics and Catalysis Letters</i> , 1991, 43, 99-105.  | 0.6 | 1         |
| 267 | Catalyst Structure - Performance Trends for Sibunit Carbon Based Cathodes for Proton Exchange Membrane Fuel Cells. <i>ECS Transactions</i> , 2009, 25, 1909-1913.   | 0.3 | 1         |
| 268 | Geological and biological aspects of a find of natural alloy (Au-Cu-Ag) nanoparticles in Cenozoic zeolitized tuff of the Vanchinskaya basin (Primor'e Area). <i>Doklady Earth Sciences</i> , 2011, 436, 55-57.                      | 0.2 | 1         |
| 269 | NMR Hyperpolarization Techniques of Gases. <i>Chemistry - A European Journal</i> , 2017, 23, 724-724.   | 1.7 | 1         |
| 270 | Effect of the Composition of the Reaction Atmosphere on the Thermal Stability of Highly Dispersed Gold Particles on an Oxide Support (Au/Fe <sub>2</sub> O <sub>3</sub> System). <i>Kinetics and Catalysis</i> , 2017, 58, 809-815. | 0.3 | 1         |



| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 271 | Changes in the Spatial Distribution of Metals Under the Influence of Reaction Medium in the System Formed by a Gold Film Supported on the Surface of a Silver Foil. Journal of Structural Chemistry, 2019, 60, 1773-1782. | 0.3 | 1         |
| 272 | XPS Analysis of the Spacial Distribution of Metals in Au-Ag Bimetallic Particles Considering the Effect of Particle Size Distribution. Journal of Structural Chemistry, 2020, 61, 20-28.                                  | 0.3 | 1         |
| 273 | Self-sustained Oscillations in Oxidation of Propane Over Nickel: Experimental Study and Mathematical Modelling. Topics in Catalysis, 2020, 63, 33-48.   | 1.3 | 1         |
| 274 | 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.   | 0.5 | 1         |
| 275 | Silicon carbon nitride films as new materials obtained by plasma chemical vapor deposition from novel precursor. , 2001, 4467, 366.   |     | 0         |
| 276 | Effect of Mechanical Treatment on the Reactivity of Copper Powder toward Acetic Acid. Kinetics and Catalysis, 2005, 46, 565-571.  | 0.3 | 0         |
| 277 | VII Russian Conference on Mechanisms of Catalytic Reactions (with international participation). Kinetics and Catalysis, 2007, 48, 457-463.  | 0.3 | 0         |
| 278 | Uptake of palladium nanoparticles by epithelial MDCK cells and peritoneal macrophages. Nanotechnologies in Russia, 2014, 9, 707-714.  | 0.7 | 0         |
| 279 | Frontispiece: Parahydrogen-Induced Polarization of Diethyl Ether Anesthetic. Chemistry - A European Journal, 2020, 26, .  | 1.7 | 0         |