

# Andrey Saraev

## List of Publications by Year in descending order

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104  
papers

2,633  
citations

201658

27  
h-index

214788

47  
g-index

104  
all docs

104  
docs citations

104  
times ranked

3286  
citing authors

#	ARTICLE	IF	CITATIONS
1	Platinum deposition onto g-C <sub>3</sub> N <sub>4</sub> with using of labile nitratocomplex for generation of the highly active hydrogen evolution photocatalysts. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 11326-11340.	7.1	14
2	Mechanistic study of methanol oxidation on Pt(1 1 1) single crystal. <i>Applied Surface Science</i> , 2022, 579, 152140.	6.1	8
3	Promoting effect of Zn in high-loading Zn/Ni-SiO <sub>2</sub> catalysts for selective hydrogen evolution from methylcyclohexane. <i>Dalton Transactions</i> , 2022, 51, 6068-6085.	3.3	10
4	Influence of Cu foam framework on the physico-chemical properties and catalytic behavior of Cu(Fe)AlO/Cu(Fe)Al ceramometal granules in WGS. <i>International Journal of Hydrogen Energy</i> , 2022, , .	7.1	0
5	Low Temperature Multilayer Adsorption of Methanol and Ethanol on Platinum. <i>Applied Spectroscopy</i> , 2022, , 000370282210856.	2.2	2
6	Broadening the Action Spectrum of TiO <sub>2</sub> -Based Photocatalysts to Visible Region by Substituting Platinum with Copper. <i>Nanomaterials</i> , 2022, 12, 1584.	4.1	8
7	Highly efficient hydrogen production under visible light over g-C <sub>3</sub> N <sub>4</sub> -based photocatalysts with low platinum content. <i>Chemical Engineering Journal</i> , 2022, 445, 136721.	12.7	30
8	A Study of the Photocatalytic and Photovoltaic Properties of Photocatalysts Based on Carbon Nitride, Cobalt Phosphide, and Cobalt Phosphate. <i>Kinetics and Catalysis</i> , 2022, 63, 248-260.	1.0	2
9	Influence of Thermal Activation of Titania on Photoreactivity of Pt/TiO <sub>2</sub> in Hydrogen Production. <i>Catalysis Letters</i> , 2021, 151, 748-754.	2.6	10
10	Spinel-type Mn <sub>x</sub> Cr <sub>3-x</sub> O <sub>4</sub> -based catalysts for ethanol steam reforming. <i>Applied Catalysis B: Environmental</i> , 2021, 283, 119656.	20.2	16
11	Multilayer adsorption of methanol on platinum at low temperatures. <i>Applied Surface Science</i> , 2021, 535, 147717.	6.1	4
12	Comparative study of photoreforming of glycerol on Pt/TiO <sub>2</sub> and CuOx/TiO <sub>2</sub> photocatalysts under UV light. <i>Materials Letters</i> , 2021, 283, 128901.	2.6	27
13	CO oxidation over titania-supported gold catalysts obtained using polyoxometalate. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2021, 132, 171-185.	1.7	2
14	Self-sustained oscillations in oxidation of methane over palladium: the nature of "low-active" and "highly active" states. <i>Catalysis Science and Technology</i> , 2021, 11, 4392-4397.	4.1	8
15	In Situ X-Ray Absorption Spectroscopy Studies of Carbon Monoxide Oxidation in the Presence of Nanocomposite Cu-Fe-Al Oxide Catalysts. <i>Kinetics and Catalysis</i> , 2021, 62, 160-171.	1.0	1
16	The Formation of Mn-Ce Oxide Catalysts for CO Oxidation by Oxalate Route: The Role of Annealing Conditions. <i>Catalysis Letters</i> , 2021, 151, 2906-2918.	2.6	8
17	The Formation of Mn-Ce Oxide Catalysts for CO Oxidation by Oxalate Route: The Role of Manganese Content. <i>Nanomaterials</i> , 2021, 11, 988.	4.1	7
18	CHEMICAL STRUCTURE AND FUNCTIONAL PROPERTIES OF AMORPHOUS BORON CARBONITRIDE FILMS. <i>Journal of Structural Chemistry</i> , 2021, 62, 1309-1324.	1.0	2

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19	Ni-Cu High-Loaded Sol-Gel Catalysts for Dehydrogenation of Liquid Organic Hydrides: Insights into Structural Features and Relationship with Catalytic Activity. <i>Nanomaterials</i> , 2021, 11, 2017.	4.1	10
20	Investigation of the Structure and Interface Features of Ni/Ce <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> Catalysts for CO and CO <sub>2</sub> Methanation. <i>Journal of Physical Chemistry C</i> , 2021, 125, 20538-20550.	3.1	20
21	In Situ Study of Reduction of Mn <sub>x</sub> Co <sub>3</sub> O <sub>4</sub> Mixed Oxides: The Role of Manganese Content. <i>Inorganic Chemistry</i> , 2021, 60, 16518-16528.	4.0	7
22	Atomic Structure of Pd-, Pt-, and PdPt-Based Catalysts of Total Oxidation of Methane: In Situ EXAFS Study. <i>Catalysts</i> , 2021, 11, 1446.	3.5	4
23	CuFeAl-composite catalysts of oxidation of gasification products of solid fuels: In situ XAS and XRD study. <i>Radiation Physics and Chemistry</i> , 2020, 175, 108071.	2.8	6
24	3D, covalent and noncovalent hybrid materials based on 3-phenylcoumarin derivatives and single walled carbon nanotubes as gas sensing layers. <i>Applied Surface Science</i> , 2020, 504, 144276.	6.1	15
25	Hydroprocessing of Maya vacuum residue using a NiMo catalyst supported on Cr-doped alumina. <i>Fuel</i> , 2020, 263, 116717.	6.4	13
26	Chemical and texture promoters in Cu-Fe-Al oxide nanocomposite catalysts for combustion of solid fuel gasification products. <i>Applied Catalysis A: General</i> , 2020, 590, 117364.	4.3	15
27	Effect of Temperature on the Hydrotreatment of Sewage Sludge-Derived Pyrolysis Oil and Behavior of Ni-Based Catalyst. <i>Catalysts</i> , 2020, 10, 1273.	3.5	9
28	Coupling Hydrogenation of Guaiacol with In Situ Hydrogen Production by Glycerol Aqueous Reforming over Ni/Al <sub>2</sub> O <sub>3</sub> and Ni-X/Al <sub>2</sub> O <sub>3</sub> (X = Cu, Mo, P) Catalysts. <i>Nanomaterials</i> , 2020, 10, 1420.	4.1	10
29	New titania-based photocatalysts for hydrogen production from aqueous-alcoholic solutions of methylene blue. <i>RSC Advances</i> , 2020, 10, 34137-34148.	3.6	9
30	Effect of Calcination Temperature on Activity of Fe <sub>2</sub> O <sub>3</sub> -Al <sub>2</sub> O <sub>3</sub> Nanocomposite Catalysts in CO Oxidation. <i>Catalysis Letters</i> , 2020, 150, 3377-3385.	2.6	7
31	CuFeAl Nanocomposite Catalysts for Coal Combustion in Fluidized Bed. <i>Nanomaterials</i> , 2020, 10, 1002.	4.1	11
32	Kinetic and mechanistic study of CO oxidation over nanocomposite Cu-Fe-Al oxide catalysts. <i>ChemCatChem</i> , 2020, 12, 4911-4921.	3.7	16
33	The Structure of Mixed Mn-Co Oxide Catalysts for CO Oxidation. <i>Topics in Catalysis</i> , 2020, 63, 75-85.	2.8	9
34	High Photocatalytic Activity Under Visible Light of Sandwich Structures Based on Anodic TiO <sub>2</sub> /CdS Nanoparticles/Sol-Gel TiO <sub>2</sub> . <i>Topics in Catalysis</i> , 2020, 63, 130-138.	2.8	17
35	Self-sustained Oscillations in Oxidation of Propane Over Nickel: Experimental Study and Mathematical Modelling. <i>Topics in Catalysis</i> , 2020, 63, 33-48.	2.8	1
36	Oscillatory Behavior in Oxidation of Propane Over Nickel Foil and Films. <i>Topics in Catalysis</i> , 2020, 63, 24-32.	2.8	5

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37	The crystal structure of solid solutions formed in the HfO <sub>2</sub> -Sc <sub>2</sub> O <sub>3</sub> nanoscale system. Journal of Crystal Growth, 2019, 523, 125156.	1.5	2
38	A Mechanistic Study of Dehydrogenation of Propane over Vanadia-Titania Catalysts. Journal of Physical Chemistry C, 2019, 123, 19668-19680.	3.1	33
39	The surface study of the Pd-Ga/Sibunit catalysts for acetylene hydrogenation. AIP Conference Proceedings, 2019, , .	0.4	0
40	Studying the Effect of Promotion with Copper on the Activity of the Ni/Al <sub>2</sub> O <sub>3</sub> Catalyst in the Process of Ester Hydrotreatment. Catalysis in Industry, 2019, 11, 198-207.	0.7	7
41	Optical properties and charge transport of textured Sc <sub>2</sub> O <sub>3</sub> thin films obtained by atomic layer deposition. Applied Surface Science, 2019, 478, 690-698.	6.1	14
42	Hydrotreatment of Anisole and Furfural as Model Compounds of Bio-oil over Chromium Modified Nickel-Based Catalysts. ChemistrySelect, 2019, 4, 7317-7326.	1.5	4
43	NAP-XPS and in situ XRD study of the stability of Bi-modified MoVNbTeO catalysts for oxidative dehydrogenation of ethane. Applied Catalysis A: General, 2019, 579, 141-150.	4.3	21
44	Influence of calcination on photocatalytic properties of nonstoichiometric titanium dioxide nanotubes. Journal of Alloys and Compounds, 2019, 796, 293-299.	5.5	31
45	Nonclassical Adsorption of Methanol on Palladium: The Competition between Adsorption of Single Molecules and Clusters. Journal of Physical Chemistry C, 2019, 123, 7259-7265.	3.1	5
46	The Influence of Cu and Al Additives on Reduction of Iron(III) Oxide: <i>In Situ</i> XRD and XANES Study. Inorganic Chemistry, 2019, 58, 4842-4850.	4.0	20
47	Highly Active CuFeAl-containing Catalysts for Selective Hydrogenation of Furfural to Furfuryl Alcohol. Catalysts, 2019, 9, 816.	3.5	18
48	Phenanthrene catalytic cracking in supercritical water: effect of the reaction medium on NiMo/SiO <sub>2</sub> catalysts. Catalysis Today, 2019, 329, 197-205.	4.4	19
49	<i>In Situ</i> Study of Self-sustained Oscillations in Propane Oxidation and Propane Steam Reforming with Oxygen Over Nickel. Catalysis Letters, 2019, 149, 313-321.	2.6	11
50	<i>In Situ</i> NAP-XPS and Mass Spectrometry Study of the Oxidation of Propylene over Palladium. Journal of Physical Chemistry C, 2018, 122, 4315-4323.	3.1	16
51	<i>In situ</i> formation of the active sites in Pd-Au bimetallic nanocatalysts for CO oxidation: NAP (near ambient pressure) XPS and MS study. Faraday Discussions, 2018, 208, 255-268.	3.2	45
52	Nonstoichiometric oxygen in Mn-Ga-O spinels: reduction features of the oxides and their catalytic activity. RSC Advances, 2018, 8, 11598-11607.	3.6	22
53	The Reasons for Nonlinear Phenomena in Oxidation of Methane over Nickel. Kinetics and Catalysis, 2018, 59, 810-819.	1.0	5
54	Studying the Effect of Magnesium on the Activity of a Deep Oxidation Catalyst for a Fluidized Bed in Methane and CO Oxidation Reactions. Catalysis in Industry, 2018, 10, 237-243.	0.7	4

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55	Structure of the Mo-Containing Dispersed Catalyst During Heavy Oil Upgrading in the Presence of Steam And Hydrogen. <i>Journal of Structural Chemistry</i> , 2018, 59, 1308-1316.	1.0	5
56	Structure and Chemistry of Cu <sup>2+</sup> /Fe <sup>3+</sup> /Al Nanocomposite Catalysts for CO Oxidation. <i>Catalysis Letters</i> , 2018, 148, 3715-3722.	2.6	14
57	Nonstoichiometric titanium dioxide nanotubes with enhanced catalytical activity under visible light. <i>Scientific Reports</i> , 2018, 8, 9607.	3.3	50
58	Selective oxidation of ethanol over vanadia-based catalysts: The influence of support material and reaction mechanism. <i>Catalysis Today</i> , 2017, 279, 95-106.	4.4	43
59	The Nature of Defects Responsible for Transport in a Hafnia-Based Resistive Random Access Memory Element. , 2017, , 493-504.		1
60	Influence of reaction conditions and kinetic analysis of the selective hydrogenation of oleic acid toward fatty alcohols on Ru-Sn-B/Al <sub>2</sub> O <sub>3</sub> in the flow reactor. <i>Applied Catalysis B: Environmental</i> , 2017, 209, 611-620.	20.2	27
61	Î-Alumina supported cobalt catalysts promoted by ruthenium for Fischer-Tropsch synthesis. <i>Applied Catalysis A: General</i> , 2017, 539, 48-58.	4.3	26
62	Effect of the nature of sulfur compounds on their reactivity in the oxidative desulfurization of hydrocarbon fuels with oxygen over a modified CuZnAlO catalyst. <i>Kinetics and Catalysis</i> , 2017, 58, 58-72.	1.0	11
63	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.	4.1	25
64	Nickel molybdenum carbides: Synthesis, characterization, and catalytic activity in hydrodeoxygenation of anisole and ethyl caprate. <i>Journal of Catalysis</i> , 2017, 354, 61-77.	6.2	70
65	Design of micro-shell Cu <sup>2+</sup> /Al porous ceramometals as catalysts for the water-gas shift reaction. <i>RSC Advances</i> , 2017, 7, 42443-42454.	3.6	11
66	Reversible Bulk Oxidation of Ni Foil During Oscillatory Catalytic Oxidation of Propane: A Novel Type of Spatiotemporal Self-Organization. <i>Physical Review Letters</i> , 2017, 119, 026001.	7.8	9
67	Experimental Study and Mathematical Modeling of Self-Sustained Kinetic Oscillations in Catalytic Oxidation of Methane over Nickel. <i>Journal of Physical Chemistry A</i> , 2017, 121, 6874-6886.	2.5	8
68	Photocatalytic hydrogen production using Me/Cd <sub>0.3</sub> Zn <sub>0.7</sub> S (Me = Au, Pt, Pd) catalysts: Transformation of the metallic catalyst under the action of the reaction medium. <i>Kinetics and Catalysis</i> , 2017, 58, 431-440.	1.0	5
69	Evolution of the state of copper-based co-catalysts of the Cd <sub>0.3</sub> Zn <sub>0.7</sub> S photocatalyst at the photoproduction of hydrogen under action of visible light. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30067-30075.	7.1	8
70	The atomic and electronic structure of oxygen polyvacancies in anatase. <i>Technical Physics Letters</i> , 2016, 42, 601-604.	0.7	4
71	Ni-loaded nanocrystalline ceria-zirconia solid solutions prepared via modified Pechini route as stable to coking catalysts of CH <sub>4</sub> dry reforming. <i>Open Chemistry</i> , 2016, 14, 363-376.	1.9	23
72	Electronic Structure of Oxygen Deficient Noncentrosymmetric Orthorhombic Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> . <i>ECS Transactions</i> , 2016, 75, 227-233.	0.5	2

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73	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.	1.0	4
74	Yakutites: Are they impact diamonds from the Popigai crater?. <i>Lithos</i> , 2016, 265, 278-291.	1.4	14
75	Synthesis of Pt/Zn(OH)2/Cd0.3Zn0.7S for the Photocatalytic Hydrogen Evolution from Aqueous Solutions of Organic and Inorganic Electron Donors Under Visible Light. <i>Topics in Catalysis</i> , 2016, 59, 1297-1304.	2.8	30
76	Furfural Hydrogenation to Furfuryl Alcohol over Bimetallic Ni@Cu Sol-Gel Catalyst: A Model Reaction for Conversion of Oxygenates in Pyrolysis Liquids. <i>Topics in Catalysis</i> , 2016, 59, 1413-1423.	2.8	46
77	Active component of supported vanadium catalysts in the selective oxidation of methanol. <i>Kinetics and Catalysis</i> , 2016, 57, 82-94.	1.0	23
78	Redox mechanism for selective oxidation of ethanol over monolayer V2O5/TiO2 catalysts. <i>Journal of Catalysis</i> , 2016, 338, 82-93.	6.2	70
79	Structure, chemistry and luminescence properties of dielectric La Hf1-O films. <i>Materials Chemistry and Physics</i> , 2016, 175, 200-205.	4.0	10
80	The composition of Ni-Mo phases obtained by NiMoOx-SiO2 reduction and their catalytic properties in anisole hydrogenation. <i>Applied Catalysis A: General</i> , 2016, 514, 224-234.	4.3	48
81	Novel photocatalysts Pt/Cd 1-x Zn x S/ZnO/Zn(OH) 2 : Activation during hydrogen evolution from aqueous solutions of ethanol under visible light. <i>Applied Catalysis B: Environmental</i> , 2016, 183, 197-205.	20.2	48
82	Evolution of self-sustained kinetic oscillations in the catalytic oxidation of propane over a nickel foil. <i>Journal of Catalysis</i> , 2016, 334, 23-33.	6.2	58
83	Origin of temperature oscillations of nickel catalyst occurring in methane oxidation. <i>Kinetics and Catalysis</i> , 2015, 56, 598-604.	1.0	21
84	Effect of Titania Regular Macroporosity on the Photocatalytic Hydrogen Evolution on Cd1-xZn xS/TiO2 Catalysts under Visible Light. <i>ChemCatChem</i> , 2015, 7, 4108-4117.	3.7	32
85	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.	4.4	33
86	Photoactivity of TiO2/CdS and SiO2/CdS hybrid nanostructured systems in the partial oxidation of ethanol under irradiation with visible light. <i>Kinetics and Catalysis</i> , 2015, 56, 515-522.	1.0	4
87	Reduction of mixed Mn@Zr oxides: in situ XPS and XRD studies. <i>Dalton Transactions</i> , 2015, 44, 15499-15507.	3.3	92
88	Photocatalytic hydrogen evolution from aqueous solutions of Na2S/Na2SO3 under visible light irradiation on CuS/Cd0.3Zn0.7S and Ni Cd0.3Zn0.7S1+. <i>Chemical Engineering Journal</i> , 2015, 262, 146-155.	12.7	64
89	Advanced passivation techniques for Si solar cells with high-ε dielectric materials. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	14
90	Effect of the Ni/Cu ratio on the composition and catalytic properties of nickel-copper alloy in anisole hydrodeoxygenation. <i>Kinetics and Catalysis</i> , 2014, 55, 69-78.	1.0	27

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91	Growth, chemical composition, and structure of thin $\text{La}_{1-x}\text{Hf}_x\text{O}_y$ films on Si. <i>Inorganic Materials</i> , 2014, 50, 158-164.	0.8	3
92	The origin of 2.7 eV luminescence and 5.2 eV excitation band in hafnium oxide. <i>Applied Physics Letters</i> , 2014, 104, 071904.	3.3	40
93	Selective oxidation of methanol to form dimethoxymethane and methyl formate over a monolayer $\text{V}_2\text{O}_5/\text{TiO}_2$ catalyst. <i>Journal of Catalysis</i> , 2014, 311, 59-70.	6.2	114
94	Anisole hydrodeoxygenation over Ni-Cu bimetallic catalysts: The effect of Ni/Cu ratio on selectivity. <i>Applied Catalysis A: General</i> , 2014, 470, 261-270.	4.3	147
95	Effect of doping a cadmium sulfide-zinc sulfide solid solution with copper ions on its physicochemical properties and catalytic activity in hydrogen recovery from aqueous solutions under the action of visible radiation. <i>Kinetics and Catalysis</i> , 2014, 55, 528-533.	1.0	2
96	Novel photocatalysts based on $\text{Cd}_{1-x}\text{Zn}_x\text{S}/\text{Zn}(\text{OH})_2$ for the hydrogen evolution from water solutions of ethanol. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 18758-18769.	7.1	32
97	Electronic Structure of Noncentrosymmetric $\text{In}_2\text{GeO}_7$ with Oxygen Vacancy: Ab Initio Calculations and Comparison with Experiment. <i>Journal of Physical Chemistry C</i> , 2014, 118, 3644-3650.	3.1	24
98	In situ XPS study of self-sustained oscillations in catalytic oxidation of propane over nickel. <i>Surface Science</i> , 2013, 609, 113-118.	1.9	82
99	Combined X-ray Absorption Near-Edge Structure and X-ray Photoelectron Study of the Electrocatalytically Active Cobalt(I) Cage Complexes and the Clathrochelate Cobalt(II)- and Cobalt(III)-Containing Precursors and Analogs. <i>Journal of Physical Chemistry C</i> , 2013, 117, 2753-2759.	3.1	49
100	Electronic structure of oxygen vacancies in hafnium oxide. <i>Microelectronic Engineering</i> , 2013, 109, 21-23.	2.4	53
101	Ni-based sol-gel catalysts as promising systems for crude bio-oil upgrading: Guaiacol hydrodeoxygenation study. <i>Applied Catalysis B: Environmental</i> , 2012, 113-114, 296-307.	20.2	353
102	X-ray Photoelectron Spectroscopy Depth Profiling of $\text{La}_2\text{O}_3/\text{Si}$ Thin Films Deposited by Reactive Magnetron Sputtering. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 4370-4373.	8.0	118
103	Effect of calcination temperature on the physicochemical and catalytic properties of $\text{FeSO}_4/\text{SiO}_2$ in hydrogen sulfide oxidation. <i>Kinetics and Catalysis</i> , 2011, 52, 896-906.	1.0	3
104	Preparation, active component and catalytic properties of supported vanadium catalysts in the reaction of formaldehyde oxidation to formic acid. <i>Studies in Surface Science and Catalysis</i> , 2010, 175, 463-466.	1.5	13