Andrzej Kotarba

List of Publications by Year
in descending order

177	5,071	76326	138484
papers	citations	40 h-index	58 g-index

178	178	178	4461
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Strong electronic promotion of Co3O4 towards N2O decomposition by surface alkali dopants. Catalysis Communications, 2009, 10, 1062-1065.	3.3	125
2	Attachment efficiency of gold nanoparticles by Gram-positive and Gram-negative bacterial strains governed by surface charges. Journal of Nanoparticle Research, 2019, 21, 1.	1.9	121
3	Silaneâ€“parylene coating for improving corrosion resistance of stainless steel 316L implant material. Corrosion Science, 2011, 53, 296-301.	6.6	111
4	Optimization of Pd catalysts supported on Co3O4 for low-temperature lean combustion of residual methane. Applied Catalysis B: Environmental, 2017, 206, 712-725.	20.2	107
5	Preparation, characterization and photocatalytic properties of cerium doped TiO2: On the effect of Ce loading on the photocatalytic reduction of carbon dioxide. Applied Catalysis B: Environmental, 2014, 152-153, 172-183.	20.2	104
6	Periodic Density Functional Theory and Atomistic Thermodynamic Studies of Cobalt Spinel Nanocrystals in Wet Environment: Molecular Interpretation of Water Adsorption Equilibria. Journal of Physical Chemistry C, 2010, 114, 22245-22253.	3.1	103
7	Strong dispersion effect of cobalt spinel active phase spread over ceria for catalytic N2O decomposition: The role of the interface periphery. Applied Catalysis B: Environmental, 2016, 180, 622-629.	20.2	101
8	Mg and Al substituted cobalt spinels as catalysts for low temperature deN2Oâ€”Evidence for octahedral cobalt active sites. Applied Catalysis B: Environmental, 2014, 146, 105-111.	20.2	99
9	Thermodynamic Stability, Redox Properties, and Reactivity of Mn₃O₄, Fe₃O₄, and Co₃O₄ Model Catalysts for N₂O Decomposition: Resolving the Origins of Steady Turnover. ACS Catalysis, 2016, 6, 1235-1246.	11.2	96
10	Decomposition of N2O over the surface of cobalt spinel: A DFT account of reactivity experiments. Catalysis Today, 2008, 137, 418-422.	4.4	92
11	Effect of potassium addition on catalytic activity of SrTiO3 catalyst for diesel soot combustion. Applied Catalysis B: Environmental, 2011, 101, 169-175.	20.2	90
12	Recent progress on parylene C polymer for biomedical applications: A review. Progress in Organic Coatings, 2020, 140, 105493.	3.9	87
13	Oxygen plasma functionalization of parylene C coating for implants surface: Nanotopography and active sites for drug anchoring. Materials Science and Engineering C, 2013, 33, 4221-4227.	7.3	85
14	Potassium Promotion of Cobalt Spinel Catalyst for N2O Decompositionâ€”Accounted by Work Function Measurements and DFT Modelling. Catalysis Letters, 2009, 127, 126-131.	2.6	83
15	Influence of the surface potassium species in Feâ€“K/Al2O3 catalysts on the soot oxidation activity in the presence of NOx. Applied Catalysis B: Environmental, 2014, 152-153, 88-98.	20.2	82
16	Rationales for the selection of the best precursor for potassium doping of cobalt spinel based deN2O catalyst. Applied Catalysis B: Environmental, 2013, 136-137, 302-307.	20.2	78
17	Periodic DFT and HR-STEM Studies of Surface Structure and Morphology of Cobalt Spinel Nanocrystals. Retrieving 3D Shapes from 2D Images. Journal of Physical Chemistry C, 2011, 115, 6423-6432.	3.1	70
18	Title is missing!. Catalysis Letters, 2000, 67, 129-134.	2.6	67

#	Article	IF	Citations
19	Soot oxidation over K-doped manganese and iron spinels â€" How potassium precursor nature and doping level change the catalyst activity. Catalysis Communications, 2014, 43, 34-37.	3.3	65
20	Novel cerium doped titania catalysts for photocatalytic decomposition of ammonia. Applied Catalysis B: Environmental, 2015, 178, 108-116.	20.2	63
21	Pd/Co3O4-based catalysts prepared by solution combustion synthesis for residual methane oxidation in lean conditions. Catalysis Today, 2015, 257, 66-71.	4.4	53
22	Studies of potassium-promoted nickel catalysts for methane steam reforming: Effect of surface potassium location. Applied Surface Science, 2014, 300, 191-200.	6.1	51
23	Insights into the twofold role of Cs doping on deN 2 O activity of cobalt spinel catalystâ€"towards rational optimization of the precursor and loading. Applied Catalysis B: Environmental, 2015, 168-169, 509-514.	20.2	51
24	Guidelines for optimization of catalytic activity of 3d transition metal oxide catalysts in N2O decomposition by potassium promotion. Catalysis Today, 2011, 176, 369-372.	4.4	50
25	Facile synthesis of birnessite-type K2Mn4O8 and cryptomelane-type K2-xMn8O16 catalysts and their excellent catalytic performance for soot combustion with high resistance to H2O and SO2. Applied Catalysis B: Environmental, 2021, 285, 119779.	20.2	50
26	THE ROLE OF INTERMEDIATE CALCIUM ALUMINATE PHASES IN SOLID STATE SYNTHESIS OF MAYENITE (Ca12Al14O33). Functional Materials Letters, 2011, 04, 183-186.	1.2	49
27	Parylene coatings on stainless steel 316L surface for medical applications â€" Mechanical and protective properties. Materials Science and Engineering C, 2012, 32, 31-35.	7.3	47
28	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
29	Structureâ€"redox reactivity relationships in Co_{1â^'x}Zn_xFe₂O₄: the role of stoichiometry. New Journal of Chemistry, 2019, 43, 3038-3049.	2.8	46
30	Selective N2O Removal from the Process Gas of Nitric Acid Plants Over Ceramic 12CaOÂÂ·Â7Al2O3 Catalyst. Catalysis Letters, 2008, 126, 72-77.	2.6	45
31	Catalytic properties in N2O decomposition of mixed cobaltâ€"iron spinels. Catalysis Communications, 2011, 15, 127-131.	3.3	45
32	ZnS/MMT nanocomposites: The effect of ZnS loading in MMT on the photocatalytic reduction of carbon dioxide. Applied Catalysis B: Environmental, 2014, 158-159, 410-417.	20.2	44
33	Hierarchical Porous K-OMS-2/3DOM-m Ti_{0.7}Si_{0.3}O₂ Catalysts for Soot Combustion: Easy Preparation, High Catalytic Activity, and Good Resistance to H₂O and SO₂. ACS Catalysis, 2021, 11, 5554-5571.	11.2	44
34	Potassium promoter in industrial ammonia synthesis catalyst: Studies by surface ionization. Applied Catalysis A: General, 1996, 134, 239-246.	4.3	43
35	Demonstration of the Influence of Specific Surface Area on Reaction Rate in Heterogeneous Catalysis. Journal of Chemical Education, 2021, 98, 935-940.	2.3	43
36	Electronic nature of potassium promotion effect in Coâ€"Mnâ€"Al mixed oxide on the catalytic decomposition of N2O. Catalysis Communications, 2011, 12, 1055-1058.	3.3	42

#	Article	IF	Citations
37	Role of Electronic Factor in Soot Oxidation Process Over Tunnelled and Layered Potassium Iron Oxide Catalysts. Topics in Catalysis, 2013, 56, 489-492.	2.8	42
38	Boosting the catalytic activity of magnetite in soot oxidation by surface alkali promotion. Catalysis Communications, 2014, 56, 139-142.	3.3	42
39	Surface versus bulk alkali promotion of cobalt-oxide catalyst in soot oxidation. Catalysis Communications, 2015, 71, 37-41.	3.3	42
40	Enhancing the deN2O activity of the supported Co3O4|Î±-Al2O3 catalyst by glycerol-assisted shape engineering of the active phase at the nanoscale. Applied Catalysis B: Environmental, 2017, 201, 339-347.	20.2	42
41	Computational and Experimental Investigations into N₂O Decomposition over MgO Nanocrystals from Thorough Molecular Mechanism to ab initio Microkinetics. Journal of Physical Chemistry C, 2011, 115, 22451-22460.	3.1	41
42	Cobalt Spinel Catalyst for N₂O Abatement in the Pilot Plant Operationâ€“Long-Term Activity and Stability in Tail Gases. Industrial & Engineering Chemistry Research, 2014, 53, 10335-10342.	3.7	41
43	Angular resolved neutral desorption of potassium promoter from surfaces of iron catalysts. Surface Science, 1995, 342, 327-340.	1.9	40
44	Quenching of potassium loss from styrene catalyst: Effect of Cr doping on stabilization of the K2Fe22O34 active phase. Journal of Catalysis, 2006, 239, 137-144.	6.2	40
45	Metal release and formation of surface precipitate at stainless steel grade 316 and Hanks solution interface â€“ Inflammatory response and surface finishing effects. Corrosion Science, 2009, 51, 1157-1162.	6.6	38
46	Thermal stability and repartition of potassium promoter between the support and active phase in the K-Co2.6Zn0.4O4|Î±-Al2O3 catalyst for N2O decomposition: Crucial role of activation temperature on catalytic performance. Applied Catalysis B: Environmental, 2017, 205, 597-604.	20.2	37
47	Strong Enhancement of deSoot Activity of Transition Metal Oxides by Alkali Doping: Additive Effects of Potassium and Nitric Oxide. Topics in Catalysis, 2017, 60, 162-170.	2.8	37
48	Reverse effect of doping on stability of principal components of styrene catalyst: KFeO2 and K2Fe22O34. Journal of Catalysis, 2007, 247, 238-244.	6.2	36
49	Emission of excited potassium species from an industrial iron catalyst for ammonia synthesis. Catalysis Letters, 1994, 26, 101-107.	2.6	35
50	New insights into the role of active copper species in CuO/Cryptomelane catalysts for the CO-PROX reaction. Applied Catalysis B: Environmental, 2020, 267, 118372.	20.2	35
51	Long-Range Diffusion of K Promoter on an Ammonia Synthesis Catalyst Surfaceâ€”Ionization of Excited Potassium Species in the Sample Edge Fields. Journal of Catalysis, 1999, 181, 256-264.	6.2	34
52	Optimization of Multicomponent Cobalt Spinel Catalyst for N2O Abatement from Nitric Acid Plant Tail Gases: Laboratory and Pilot Plant Studies. Catalysis Letters, 2009, 130, 637-641.	2.6	34
53	Experimental and DFT studies of N2O decomposition over bare and Co-doped magnesium oxideâ€”insights into the role of active sites topology in dry and wet conditions. Catalysis Today, 2008, 137, 423-428.	4.4	33
54	DFT Modeling of Reaction Mechanism and Ab Initio Microkinetics of Catalytic N₂O Decomposition over Alkaline Earth Oxides: From Molecular Orbital Picture Account to Simulation of Transient and Stationary Rate Profiles. Journal of Physical Chemistry C, 2013, 117, 18488-18501.	3.1	33

#	Article	IF	Citations
55	Sulfur Poisoning of Iron Ammonia Catalyst Probed by Potassium Desorption. Reaction Kinetics and Catalysis Letters, 2001, 74, 143-149.	0.6	32
56	Energetics of Potassium Loss from Styrene Catalyst Model Components: Reassignment of K Storage and Release Phases. Journal of Catalysis, 2002, 211, 265-272.	6.2	32
57	Composite ferrite catalyst for ethylbenzene dehydrogenation: Enhancement of potassium stability and catalytic performance by phase selective doping. Applied Catalysis A: General, 2011, 407, 100-105.	4.3	32
58	Modification of Electronic Properties of Mo2C Catalyst by Potassium Doping:Â Impact on the Reactivity in Hydrodenitrogenation Reaction of Indole. Journal of Physical Chemistry B, 2004, 108, 2885-2892.	2.6	31
59	How to Efficiently Promote Transition Metal Oxides by Alkali Towards Catalytic Soot Oxidation. Topics in Catalysis, 2016, 59, 1083-1089.	2.8	31
60	CO-PROX Reaction over Co₃O₄|Al₂O₃ Catalystsâ€"Impact of the Spinel Active Phase Faceting on the Catalytic Performance. Journal of Physical Chemistry C, 2019, 123, 20221-20232.	3.1	31
61	Microbiological investigations of oxygen plasma treated parylene C surfaces for metal implant coating. Materials Science and Engineering C, 2015, 52, 273-281.	7.3	30
62	Work function modifications of graphite surface via oxygen plasma treatment. Applied Surface Science, 2017, 419, 439-446.	6.1	30
63	Multifunctional PLGA/Parylene C Coating for Implant Materials: An Integral Approach for Biointerface Optimization. ACS Applied Materials & Interfaces, 2016, 8, 22093-22105.	8.0	29
64	Influence of preparation method on dispersion of cobalt spinel over alumina extrudates and the catalyst deN 2 O activity. Applied Catalysis B: Environmental, 2017, 210, 34-44.	20.2	29
65	Potassium at catalytic surfacesâ€"stability, electronic promotion and excitation. Studies in Surface Science and Catalysis, 2000, , 485-490.	1.5	28
66	Engineering of bone fixation metal implants biointerfaceâ€"Application of parylene C as versatile protective coating. Materials Science and Engineering C, 2012, 32, 2431-2435.	7.3	28
67	Cobaltâ€"zinc spinel dispersed over cordierite monoliths for catalytic N2O abatement from nitric acid plants. Catalysis Today, 2015, 257, 93-97.	4.4	28
68	Sensitive Voltammetric Amoxicillin Sensor Based on TiO₂ Sol Modified by CMKâ€3â€type Mesoporous Carbon and Gold Ganoparticles. Electroanalysis, 2018, 30, 2386-2396.	2.9	28
69	Kinetics of activation of the industrial and model fused iron catalysts for ammonia synthesis. Applied Catalysis A: General, 1994, 112, 13-36.	4.3	26
70	Laboratory and pilot scale synthesis, characterization and reactivity of multicomponent cobalt spinel catalyst for low temperature removal of N2O from nitric acid plant tail gases. Catalysis Today, 2011, 176, 365-368.	4.4	26
71	Influence of Potassium and NO Addition on Catalytic Activity in Soot Combustion and Surface Properties of Iron and Manganese Spinels. Topics in Catalysis, 2013, 56, 745-749.	2.8	26
72	The role of crystallite size of iron oxide catalyst for soot combustion. Catalysis Today, 2015, 257, 111-116.	4.4	26

#	Article	IF	Citations
73	Nanocomposite multifunctional polyelectrolyte thin films with copper nanoparticles as the antimicrobial coatings. Colloids and Surfaces B: Biointerfaces, 2019, 181, 112-118.	5.0	26
74	Bulk, Surface and Interface Promotion of Co3O4 for the Low-Temperature N2O Decomposition Catalysis. Catalysts, 2020, 10, 41.	3.5	26
75	Bacterial attachment to oxygen-functionalized graphenic surfaces. Materials Science and Engineering C, 2020, 113, 110972.	7.3	26
76	Energetics of Potassium Loss from Styrene Catalyst Model Components: Reassignment of K Storage and Release Phases. Journal of Catalysis, 2002, 211, 265-272.	6.2	24
77	Hybrid oxide-polymer layer formed on Ti-15Mo alloy surface enhancing antibacterial and osseointegration functions. Surface and Coatings Technology, 2016, 302, 158-165.	4.8	24
78	Biofunctional catheter coatings based on chitosan-fatty acids derivatives. Carbohydrate Polymers, 2019, 225, 115263.	10.2	24
79	Optimization of the potassium promotion of the Co|Î±-Al2O3 catalyst for the effective hydrogen production via ethanol steam reforming. Applied Catalysis A: General, 2021, 614, 118051.	4.3	24
80	Covalently bonded surface functional groups on carbon nanotubes: from molecular modeling to practical applications. Nanoscale, 2021, 13, 10152-10166.	5.6	24
81	Insight into the modification of electrodonor properties of multiwalled carbon nanotubes via oxygen plasma: Surface functionalization versus amorphization. Carbon, 2018, 137, 425-432.	10.3	23
82	Robust Co3O4|Î±-Al2O3|cordierite structured catalyst for N2O abatement â€“ Validation of the SCS method for active phase synthesis and deposition. Chemical Engineering Journal, 2019, 377, 120088.	12.7	23
83	Carbon-Based Composites as Electrocatalysts for Oxygen Evolution Reaction in Alkaline Media. Materials, 2021, 14, 4984.	2.9	23
84	Development of crystallineâ€“amorphous parylene C structure in micro- and nano-range towards enhanced biocompatibility: the importance of oxygen plasma treatment time. RSC Advances, 2015, 5, 48816-48821.	3.6	22
85	On the stability of alkali metal promoters in Co mixed oxides during direct NO catalytic decomposition. Molecular Catalysis, 2017, 428, 33-40.	2.0	22
86	On the selection of the best polymorph of Al2O3 carriers for supported cobalt nano-spinel catalysts for N2O abatement: an interplay between preferable surface spreading and damaging active phaseâ€“support interaction. Catalysis Science and Technology, 2017, 7, 5723-5732.	4.1	22
87	Cobalt catalyst for steam reforming of ethanolâ€“Insights into the promotional role of potassium. International Journal of Hydrogen Energy, 2020, 45, 22658-22673.	7.1	22
88	Surface heterogeneity and ionization of Cs promoter in carbon-based ruthenium catalyst for ammonia synthesis. Applied Surface Science, 2003, 207, 327-333.	6.1	21
89	Hydrodenitrogenation of indole over Mo2C catalyst: Insights into mechanistic events through DFT modeling. Catalysis Today, 2007, 119, 39-43.	4.4	21
90	Facile synthesis of ordered CeO 2 nanorod assemblies: Morphology and reactivity. Materials Chemistry and Physics, 2017, 201, 139-146.	4.0	21

#	Article	IF	Citations
91	The Effect of Fe, Co, and Ni Structural Promotion of Cryptomelane (KMn8O16) on the Catalytic Activity in Oxygen Evolution Reaction. Electrocatalysis, 2018, 9, 762-769.	3.0	21
92	Bridging the gap between tight and loose contacts for soot oxidation by vanadium doping of cryptomelane nanorods catalyst using NO₂ as an oxygen carrier. Catalysis Science and Technology, 2018, 8, 3183-3192.	4.1	20
93	Nanostructured Potassium-Manganese Oxides Decorated with Pd Nanoparticles as Efficient Catalysts for Low-Temperature Soot Oxidation. Catalysis Letters, 2019, 149, 100-106.	2.6	20
94	Graphene-based materials enhance cardiomyogenic and angiogenic differentiation capacity of human mesenchymal stem cells in vitro â€“ Focus on cardiac tissue regeneration. Materials Science and Engineering C, 2021, 119, 111614.	7.3	20
95	Characterization of unreduced fused iron catalyst for ammonia synthesis. Applied Catalysis, 1988, 39, 169-183.	0.8	19
96	Irreversible deactivation of styrene catalyst due to potassium lossâ€”Development of antidote via mechanism pinning. Catalysis Today, 2010, 154, 224-228.	4.4	19
97	Thermal Transformation of Birnessite (OL) Towards Highly Active Cryptomelane (OMS-2) Catalyst for Soot Oxidation. Catalysis Letters, 2019, 149, 2218-2225.	2.6	19
98	Evaluating the effect of oxygen groups attached to the surface of graphenic sheets on bacteria adhesion: The role of the electronic factor. Applied Surface Science, 2019, 463, 1134-1140.	6.1	19
99	Design, engineering, and performance of nanorod-Fe2O3@rGO@LaSrFe2-Co O6 (nâ€¯=â€¯0, 1) composite architectures: The role of double oxide perovskites in reaching high solar to hydrogen efficiency. Applied Catalysis B: Environmental, 2020, 272, 118952.	20.2	19
100	Reactivity of Mixed Ironâ€“Cobalt Spinels in the Lean Methane Combustion. Topics in Catalysis, 2017, 60, 1370-1379.	2.8	19
101	The Effect of the Preparation Method of Pd-Doped Cobalt Spinel on the Catalytic Activity in Methane Oxidation Under Lean Fuel Conditions. Topics in Catalysis, 2017, 60, 333-341.	2.8	18
102	Co-Mn-Al Mixed Oxides Promoted by K for Direct NO Decomposition: Effect of Preparation Parameters. Catalysts, 2019, 9, 593.	3.5	18
103	Energy-pooling transitions to doubly excited K atoms at a promoted iron-oxide catalyst surface: more than 30 eV available for reaction. Physical Chemistry Chemical Physics, 2009, 11, 4351.	2.8	17
104	Effect of potassium on physicochemical properties of CrOx/Al2O3 and CrOx/TiO2 catalysts for oxidative dehydrogenation of isobutane: The role of oxygen chemisorption. Catalysis Today, 2011, 169, 29-35.	4.4	17
105	Thermal oxygen activation followed by in situ work function measurements over carbon-supported noble metal-based catalysts. International Journal of Hydrogen Energy, 2019, 44, 16648-16656.	7.1	17
106	Primary role of electron work function for evaluation of nanostructured titania implant surface against bacterial infection. Materials Science and Engineering C, 2016, 66, 100-105.	7.3	16
107	Production of ultra-dense hydrogen H(0): A novel nuclear fuel. International Journal of Hydrogen Energy, 2021, 46, 18466-18480.	7.1	16
108	How the iron oxide catalyst for EBDH is stabilized via Mn addition. Journal of Catalysis, 2004, 221, 650-652.	6.2	15

#	Article	IF	Citations
109	Kinetic model of indole HDN over molybdenum carbide: influence of potassium on early and late denitrogenation pathways. Catalysis Today, 2004, 90, 115-119.	4.4	15
110	Emission of highly excited electronic states of potassium from cryptomelane nanorods. Physical Chemistry Chemical Physics, 2015, 17, 26289-26294.	2.8	15
111	Optimization of cerium doping of TiO2 for photocatalytic reduction of CO2 and photocatalytic decomposition of N2O. Journal of Sol-Gel Science and Technology, 2016, 78, 550-558.	2.4	15
112	Alkali tungsten bronzes as soot oxidation catalysts: The key role of electrodonor properties of catalytic surface. Catalysis Communications, 2017, 98, 76-80.	3.3	15
113	Investigation of low Ce amount doped-TiO2 prepared by using pressurized fluids in photocatalytic N2O decomposition and CO2 reduction. Journal of Sol-Gel Science and Technology, 2017, 84, 158-168.	2.4	15
114	Optimization of cesium and potassium promoter loading in alkali-doped Zn0.4Co2.6O4|Al2O3 catalysts for N2O abatement. Reaction Kinetics, Mechanisms and Catalysis, 2017, 121, 645-655.	1.7	15
115	Effect of noble metal addition to alkali-exchanged cryptomelane on the simultaneous soot and VOC combustion activity. Catalysis Communications, 2019, 132, 105807.	3.3	15
116	Stability of oxygen-functionalized graphenic surfaces: Theoretical and experimental insights into electronic properties and wettability. Applied Surface Science, 2021, 539, 148190.	6.1	15
117	Mechanistic Insights into Oxygen Dynamics in Soot Combustion over Cryptomelane Catalysts in Tight and Loose Contact Modes via ¹⁸O₂/¹⁶O₂ Isotopic Variable Composition Measurements â€“ A Hot Ring Model of the Catalyst Operation. ACS Catalysis, 2021, 11, 9530-9546.	11.2	15
118	K-Doped Coâ€“Mnâ€“Al Mixed Oxide Catalyst for N₂O Abatement from Nitric Acid Plant Waste Gases: Pilot Plant Studies. Industrial & Engineering Chemistry Research, 2016, 55, 7076-7084.	3.7	14
119	The effect of alumina on the wet atmosphere reduction of fused iron catalyst -preliminary announcement. Applied Catalysis, 1985, 19, 417-418.	0.8	13
120	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
121	Naphthalene on Ni(111): Experimental and Theoretical Insights into Adsorption, Dehydrogenation, and Carbon Passivation. Journal of Physical Chemistry C, 2017, 121, 22199-22207.	3.1	13
122	Designing, optimization and performance evaluation of the K-Zn0.4Co2.6O4|Î±-Al2O3|cordierite catalyst for low-temperature N2O decomposition. Catalysis Communications, 2018, 110, 64-67.	3.3	13
123	Development of structured Co3O4-based catalyst for N2O removal from hospital ventilation systems. Catalysis Today, 2020, 348, 111-117.	4.4	13
124	Importance of Surface Functionalities for Antibacterial Properties of Carbon Spheres. Advanced Sustainable Systems, 2019, 3, 1800148.	5.3	12
125	Functionalization of the Parylene C Surface Enhances the Nucleation of Calcium Phosphate: Combined Experimental and Molecular Dynamics Simulations Approach. ACS Applied Materials & Interfaces, 2020, 12, 12426-12435.	8.0	12
126	Conductive all-carbon nanotube layers: Results on attractive physicochemical, anti-bacterial, anticancer and biocompatibility properties. Materials Science and Engineering C, 2021, 120, 111703.	7.3	12

#	Article	IF	Citations
127	Evaluation of the inhibiting effect of H2O, O2, and NO on the performance of laboratory and pilot K-ZnxCo3-xO4 catalysts supported on Î±-Al2O3 for low-temperature N2O decomposition. Applied Catalysis B: Environmental, 2021, 297, 120435.	20.2	12
128	Tuning the properties of the cobalt-zeolite nanocomposite catalyst by potassium: Switching between dehydration and dehydrogenation of ethanol. Journal of Catalysis, 2022, 407, 364-380.	6.2	12
129	Potassium stabilization in Î²-K2Fe22O34 by Cr and Ce doping studied by field reversal method. Solid State Ionics, 2011, 192, 664-667.	2.7	11
130	LDI-MS examination of oxygen plasma modified polymer for designing tailored implant biointerfaces. RSC Advances, 2014, 4, 26240-26243.	3.6	11
131	Density Functional Theory Modeling and Time-of-Flight Secondary Ion Mass Spectrometric and X-ray Photoelectron Spectroscopic Investigations into Mechanistic Key Events of Coronene Oxidation: Toward Molecular Understanding of Soot Combustion. Journal of Physical Chemistry C, 2015, 119, 6568-6580.	3.1	11
132	Parallel migration of potassium and oxygen ions in hexagonal tungsten bronze â€“ Bulk diffusion, surface segregation and desorption. Solid State Ionics, 2016, 297, 1-6.	2.7	11
133	Soot Combustion over Niobium-Doped Cryptomelane (K-OMS-2) Nanorodsâ€”Redox State of Manganese and the Lattice Strain Control the Catalysts Performance. Catalysts, 2020, 10, 1390.	3.5	11
134	Screening investigations into the effect of cryptomelane doping with 3d transition metal cations on the catalytic activity in soot oxidation, NO2 formation and SO2 resistance. Applied Catalysis A: General, 2021, 624, 118302.	4.3	11
135	Kinetics of wet atmosphere reduction of a fused iron catalyst for ammonia synthesis. Applied Catalysis, 1991, 71, L1-L4.	0.8	10
136	Deactivation of iron catalyst by water-potassium thermal desorption studies. Studies in Surface Science and Catalysis, 1999, 126, 229-236.	1.5	10
137	Potassium surface stability and electronic promotion in K-NbN0.9O0.1 catalysts. Applied Surface Science, 2000, 161, 105-108.	6.1	10
138	Molecular Dynamics Insights into Waterâ€“Parylene C Interface: Relevance of Oxygen Plasma Treatment for Biocompatibility. ACS Applied Materials & Interfaces, 2017, 9, 16685-16693.	8.0	10
139	Phase evolution and electronic properties of cryptomelane nanorods. Journal of Alloys and Compounds, 2018, 767, 592-599.	5.5	10
140	Precipitated K-Promoted Coâ€“Mnâ€“Al Mixed Oxides for Direct NO Decomposition: Preparation and Properties. Catalysts, 2019, 9, 592.	3.5	10
141	DIFFUSION, SEGREGATION AND DESORPTION OF POTASSIUM FROM K2Fe22O34 FERRITE. Functional Materials Letters, 2011, 04, 179-182.	1.2	9
142	Magnesium Effect in K/Co-Mg-Mn-Al Mixed Oxide Catalyst for Direct NO Decomposition. Catalysts, 2020, 10, 931.	3.5	9
143	Design, characterization and evaluation of Ce-modified cobalt catalysts supported on alpha alumina in the abatement of methane emissions from natural gas engines. Applied Catalysis A: General, 2021, 617, 118105.	4.3	9
144	Simultaneous effect of phase composition and water vapour on the reduction of iron catalyst for ammonia synthesis. Applied Catalysis, 1988, 40, 67-72.	0.8	8

#	Article	IF	Citations
145	The Structure of Potassium Aluminium Oxide KAlO₂. Materials Science Forum, 2000, 321-324, 954-959.	0.3	8
146	In situ characterization of an iron catalyst by potassium ion desorption and electron emission measurements. Reaction Kinetics and Catalysis Letters, 1998, 63, 219-224.	0.6	7
147	One-step sonochemical fabrication and embedding of gentamicin nanoparticles into parylene C implant coating: towards controlled drug delivery. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 941-950.	3.3	7
148	A new approach to kinetic study of wet atmosphere activation of fused iron catalyst. Applied Catalysis A: General, 1997, 162, 133-148.	4.3	6
149	High Pressure Desorption of K+from Iron Ammonia Catalyst â€“ Migration of the Promoter Towards Fe Active Planes. Catalysis Letters, 2004, 95, 93-97.	2.6	6
150	In situ monitoring of bare and K-doped Mo2C catalysts surface depassivation based on emission of electrons and K+ ions. Applied Surface Science, 2006, 252, 4129-4137.	6.1	6
151	Comments on â€œSurface energy of parylene Câ€• Materials Letters, 2015, 160, 14-15.	2.6	6
152	Atomic-Level Dispersion of Bismuth over Co3O4 Nanocrystalsâ€”Outstanding Promotional Effect in Catalytic DeN2O. Catalysts, 2020, 10, 351.	3.5	6
153	Effect of Potassium Promoter on the Performance of Nickel-Based Catalysts Supported on MnOx in Steam Reforming of Ethanol. Catalysts, 2022, 12, 600.	3.5	6
154	The Effect of Water Vapour on the Reduction of Promoted Iron Oxides. Methodological Study - From Application to Fundamentals. Solid State Phenomena, 1995, 41, 49-54.	0.3	4
155	Designing new catalysts: synthesis of new active structures: general discussion. Faraday Discussions, 2016, 188, 131-159.	3.2	4
156	Characterization of Partially Covered Self-Expandable Metallic Stents for Esophageal Cancer Treatment: In Vivo Degradation. ACS Biomaterials Science and Engineering, 2021, 7, 1403-1413.	5.2	4
157	Bridging model and real catalysts: general discussion. Faraday Discussions, 2016, 188, 565-589.	3.2	3
158	Insights into Structure, Morphology and Reactivity of the Iron Oxide Based Fuel Borne Catalysts. Topics in Catalysis, 2017, 60, 367-373.	2.8	3
159	Investigation of the surface species during temperature dependent dehydrogenation of naphthalene on Ni(111). Journal of Chemical Physics, 2019, 150, 244704.	3.0	3
160	Oxidation of soot over supported RuRe nanoparticles prepared by the microwave-polyol method. Reaction Kinetics, Mechanisms and Catalysis, 2021, 134, 221-242.	1.7	3
161	Highly robust and efficient MnZnFe₂O₄ decorated fibrous KCC-SiO₂ catalyst for the synthesis of light olefins from syngas. Catalysis Science and Technology, 2022, 12, 1892-1901.	4.1	3
162	Work function of the oxygen functionalized graphenic surfaces â€“ integral experimental and theoretical approach. Applied Surface Science, 2022, , 153671.	6.1	3

#	Article	IF	Citations
163	A new experimental approach to kinetic study of the effect of gaseous product on gas-solid reactions. Solid State Ionics, 1997, 101-103, 677-680.	2.7	2
164	Polymorphic Transitions and Surface Properties of Zirconia Modified by Doping with d, p and s Oxides. Key Engineering Materials, 2003, 253, 129-138.	0.4	2
165	The modifications of copper work function by layer-by-layer deposition of [W(CN)8]4â^' â€“ Co2+ bimetallic nanolayers. Polyhedron, 2009, 28, 473-478.	2.2	2
166	Catalyst design from theory to practice: general discussion. Faraday Discussions, 2016, 188, 279-307.	3.2	2
167	Influence of Different Birnessite Interlayer Alkali Cations on Catalytic Oxidation of Soot and Light Hydrocarbons. Catalysts, 2020, 10, 507.	3.5	2
168	Innovative method for the preparation of catalytic surfaces: The application of microorganisms for the deposition of nanoparticles on supports. Applied Surface Science, 2021, 553, 149573.	6.1	2
169	Opposite effects of gold and silver nanoparticle decoration of graphenic surfaces on bacterial attachment. New Journal of Chemistry, 2022, 46, 13286-13295.	2.8	2
170	Changes in surface composition of Fe-Si-Cr-K oxide alkylation catalyst: the marked role of potassium ferrites. Research on Chemical Intermediates, 2004, 30, 337-342.	2.7	1
171	Platinum nanoparticles supported on zeolite MWW nanosheets prepared via homogeneous solution route. Catalysis Today, 2022, 390-391, 335-342.	4.4	1
172	Novel Ce-modified cobalt catalysts supported over Î±-Al2O3 open cell foams for lean methane oxidation. Applied Catalysis A: General, 2022, 632, 118511.	4.3	1
173	Preparation of 3DOM ZrTiO4 Support, WxCeMnOÎ´/3DOM ZrTiO4 Catalysts, and Their Catalytic Performance for the Simultaneous Removal of Soot and NOx. Frontiers in Chemistry, 2022, 10, .	3.6	1
174	Spectrophotometric determination of Fe(II) in milligram solid samples. Mikrochimica Acta, 1990, 100, 349-353.	5.0	0
175	The Kinetics of Activation of Industrial and Model Iron Catalysts for Ammonia Synthesis in Dried and Wet Atmosphere. Studies in Surface Science and Catalysis, 1993, 75, 2023-2026.	1.5	0
176	Application of novel catalysts: general discussion. Faraday Discussions, 2016, 188, 399-426.	3.2	0
177	TiO2 Supported RuRe Nanocatalysts for Soot Oxidation: Effect of Re and the Support Nature. Catalysis Letters, 0, , .	2.6	0