# Johannes W Schwank

List of Publications by Year
in descending order

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|---|---|---|---|
| 186 papers | 7,738 citations | 44069 48 h-index | 66911 78 g-index |
| 186 all docs | 186 docs citations | 186 times ranked | 7600 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A review on TiO2-based nanotubes synthesized via hydrothermal method: Formation mechanism, structure modification, and photocatalytic applications. Catalysis Today, 2014, 225, 34-51. | 4.4 | 438 |
| 2 | Improvement of Activity and SO<sub>2</sub> Tolerance of Sn-Modified MnO<sub>x</sub>â€“CeO<sub>2</sub> Catalysts for NH<sub>3</sub>-SCR at Low Temperatures. Environmental Science & Technology, 2013, 47, 5294-5301. | 10.0 | 378 |
| 3 | A review on oxygen storage capacity of CeO2-based materials: Influence factors, measurement techniques, and applications in reactions related to catalytic automotive emissions control. Catalysis Today, 2019, 327, 90-115. | 4.4 | 213 |
| 4 | Promotion of the long-term stability of reforming Ni catalysts by surface alloying. Journal of Catalysis, 2007, 250, 85-93. | 6.2 | 205 |
| 5 | Controlling Carbon Surface Chemistry by Alloying:Â Carbon Tolerant Reforming Catalyst. Journal of the American Chemical Society, 2006, 128, 11354-11355. | 13.7 | 172 |
| 6 | Shape dependence and sulfate promotion of CeO2 for selective catalytic reduction of NO with NH3. Applied Catalysis B: Environmental, 2018, 232, 246-259. | 20.2 | 160 |
| 7 | Peculiarities of SnO2 thin film deposition by spray pyrolysis for gas sensor application. Sensors and Actuators B: Chemical, 2001, 77, 244-252. | 7.8 | 155 |
| 8 | Effect of Sn on MnO â€“CeO2 catalyst for SCR of NO by ammonia: Enhancement of activity and remarkable resistance to SO2. Catalysis Communications, 2012, 27, 54-57. | 3.3 | 155 |
| 9 | Indium-doped Co 3 O 4 nanorods for catalytic oxidation of CO and C 3 H 6 towards diesel exhaust. Applied Catalysis B: Environmental, 2018, 222, 44-58. | 20.2 | 155 |
| 10 | Comparative study of the kinetics of methane steam reforming on supported Ni and Sn/Ni alloy catalysts: The impact of the formation of Ni alloy on chemistry. Journal of Catalysis, 2009, 263, 220-227. | 6.2 | 151 |
| 11 | Preparation, structure, properties and thermal behavior of rigid-rod polyimide/montmorillonite nanocomposites. Composites Science and Technology, 2001, 61, 1253-1264. | 7.8 | 150 |
| 12 | A chemisorption and XPS study of bimetallic Pt-Sn/Al2O3 catalysts. Journal of Catalysis, 1991, 127, 287-306. | 6.2 | 145 |
| 13 | Influence of surface Pd doping on gas sensing characteristics of SnO2 thin films deposited by spray pirolysis. Thin Solid Films, 2003, 436, 119-126. | 1.8 | 133 |
| 14 | Catalytic gold. Gold Bulletin, 1983, 16, 103-110. | 2.7 | 124 |
| 15 | Surface degradation of Î±-naphthalene sulfonate-doped polypyrrole during XPS characterization. Applied Surface Science, 2002, 199, 128-137. | 6.1 | 116 |
| 16 | Measuring and Relating the Electronic Structures of Nonmodel Supported Catalytic Materials to Their Performance. Journal of the American Chemical Society, 2009, 131, 2747-2754. | 13.7 | 102 |
| 17 | Electrical conductivity of polyaniline/zeolite composites and synergetic interaction with CO. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 117, 276-282. | 3.5 | 95 |
| 18 | Electrical conductivity response of polypyrrole to acetone vapor: effect of dopant anions and interaction mechanisms. Synthetic Metals, 2004, 140, 15-21. | 3.9 | 87 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Catalytic activity of ethylene oxidation over Au, Ag and Auâ€“Ag catalysts: Support effect. Catalysis Communications, 2007, 8, 57-64. | 3.3 | 87 |
| 20 | Sodium-promoted Ag/CeO2 nanospheres for catalytic oxidation of formaldehyde. Chemical Engineering Journal, 2018, 350, 419-428. | 12.7 | 84 |
| 21 | Gold in bimetallic catalysts. Gold Bulletin, 1985, 18, 2-10. | 2.7 | 74 |
| 22 | Infrared spectroscopic study of NO reduction by H2 on supported gold catalysts. Journal of Catalysis, 1986, 102, 207-215. | 6.2 | 74 |
| 23 | Aging, re-dispersion, and catalytic oxidation characteristics of model Pd/Al2O3 automotive three-way catalysts. Applied Catalysis B: Environmental, 2015, 163, 499-509. | 20.2 | 74 |
| 24 | Influence of Cu-, Fe-, Co-, and Mn-oxide nanoclusters on sensing behavior of SnO2 films. Thin Solid Films, 2004, 467, 209-214. | 1.8 | 73 |
| 25 | Morphological rank of nano-scale tin dioxide films deposited by spray pyrolysis from SnCl4Â·5H2O water solution. Thin Solid Films, 2002, 408, 51-58. | 1.8 | 72 |
| 26 | Hydrocarbon steam reforming on Ni alloys at solid oxide fuel cell operating conditions. Catalysis Today, 2008, 136, 243-248. | 4.4 | 71 |
| 27 | Characterization of Pt-Sn/carbon hydrogenation catalysts. Applied Catalysis A: General, 2002, 227, 105-115. | 4.3 | 69 |
| 28 | Chemisorption and FTIR study of bimetallic Pt$z.sbnd;Au/SiO2 catalysts. Journal of Catalysis, 1990, 121, 441-455. | 6.2 | 68 |
| 29 | Carbon deposited on Ni/Ce Zr O isooctane autothermal reforming catalysts. Journal of Catalysis, 2007, 251, 374-387. | 6.2 | 68 |
| 30 | Direct Electrochemical Oxidation of Hydrocarbon Fuels on SOFCs: Improved Carbon Tolerance of Ni Alloy Anodes. Journal of the Electrochemical Society, 2009, 156, B1312. | 2.9 | 66 |
| 31 | An infrared study of CO adsorption on magnesia-supported ruthenium, gold, and bimetallic ruthenium-gold clusters. Journal of Catalysis, 1980, 61, 19-28. | 6.2 | 63 |
| 32 | Synthesis of Ni@SiO<sub>2</sub> Nanotube Particles in a Water-in-Oil Microemulsion Template. Chemistry of Materials, 2012, 24, 2635-2644. | 6.7 | 63 |
| 33 | Structural and gas response characterization of nano-size SnO2 films deposited by SILD method. Sensors and Actuators B: Chemical, 2003, 96, 602-609. | 7.8 | 62 |
| 34 | Bimetallic Ru-Au catalysts: Effect of the support. Journal of Catalysis, 1981, 69, 283-291. | 6.2 | 61 |
| 35 | Selective oxidation of methane over vycor glass, quartz glass and various silica, magnesia and alumina surfaces. Applied Catalysis, 1988, 44, 33-51. | 0.8 | 59 |
| 36 | FTIR study of bimetallic Pt-Sn/Al2O3 catalysts. Journal of Catalysis, 1992, 138, 491-499. | 6.2 | 59 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | A micromachined ultra-thin-film gas detector. IEEE Transactions on Electron Devices, 1994, 41, 1770-1777. | 3.0 | 59 |
| 38 | Gold-titania interactions: Temperature dependence of surface area and crystallinity of TiO2 and gold dispersion. Journal of Catalysis, 1984, 87, 265-275. | 6.2 | 55 |
| 39 | Possibilities of aerosol technology for deposition of SnO2-based films with improved gas sensing characteristics. Materials Science and Engineering C, 2002, 19, 73-77. | 7.3 | 55 |
| 40 | Techno-economic analysis of fuel cell auxiliary power units as alternative to idling. Journal of Power Sources, 2006, 160, 474-484. | 7.8 | 54 |
| 41 | Syngas and HDS catalysts derived from sulphido bimetallic clusters. Polyhedron, 1988, 7, 2411-2420. | 2.2 | 53 |
| 42 | Structural characterization of SnO2 gas sensing films deposited by spray pyrolysis. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 77, 33-39. | 3.5 | 53 |
| 43 | Dodecane reforming over nickel-based monolith catalysts. Journal of Catalysis, 2007, 250, 209-221. | 6.2 | 53 |
| 44 | Electrical conductivity response of dodecylbenzene sulfonic acid-doped polypyrrole films to SO2â€“N2 mixtures. Synthetic Metals, 2000, 114, 65-72. | 3.9 | 52 |
| 45 | High-Temperature Photocatalytic Ethylene Oxidation over TiO<sub>2</sub>. Journal of Physical Chemistry C, 2011, 115, 16537-16543. | 3.1 | 52 |
| 46 | n-Dodecane reforming over nickel-based monolith catalysts: Deactivation and carbon deposition. Applied Catalysis A: General, 2008, 334, 277-290. | 4.3 | 51 |
| 47 | Alumina-supported triosmium clusters and ensembles: Characterization by high-resolution transmission electron microscopy. Journal of Catalysis, 1983, 84, 27-37. | 6.2 | 50 |
| 48 | Packed bed versus microreactor performance in autothermal reforming of isooctane. Catalysis Today, 2005, 110, 68-75. | 4.4 | 50 |
| 49 | Adhesion and permeability of polyimide-clay nanocomposite films for protective coatings. Journal of Applied Polymer Science, 2003, 89, 2875-2881. | 2.6 | 49 |
| 50 | Effect of Ce and La dopants in Co<sub>3</sub>O<sub>4</sub> nanorods on the catalytic activity of CO and C<sub>3</sub>H<sub>6</sub> oxidation. Catalysis Science and Technology, 2019, 9, 1165-1177. | 4.1 | 49 |
| 51 | Cyclopropane hydrogenation on Ru and Ru$z.sbnd;Au catalysts. Journal of Catalysis, 1980, 61, 223-231. | 6.2 | 48 |
| 52 | Polyaniline/zeolite LTA composites and electrical conductivity response towards CO. Polymer, 2005, 46, 947-953. | 3.8 | 48 |
| 53 | Polyaniline/polyimide blends as gas sensors and electrical conductivity response to CO-N2 mixtures. Polymer International, 2005, 54, 1126-1133. | 3.1 | 48 |
| 54 | Catalytic performance and reaction mechanism of NO oxidation over Co3O4 catalysts. Applied Catalysis B: Environmental, 2020, 267, 118371. | 20.2 | 47 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Fischer-Tropsch synthesis on bimetallic ruthenium-gold catalysts. Journal of Catalysis, 1985, 93, 256-269. | 6.2 | 45 |
| 56 | Reaction mechanism of propane oxidation over Co3O4 nanorods as rivals of platinum catalysts. Chemical Engineering Journal, 2020, 402, 125911. | 12.7 | 45 |
| 57 | Isotopic oxygen exchange on supported Ru and Au catalysts. Journal of Catalysis, 1980, 63, 415-424. | 6.2 | 44 |
| 58 | Microstructure and reactivity of supported bimetallic platinum-gold catalysts. Journal of Catalysis, 1989, 120, 353-369. | 6.2 | 42 |
| 59 | Thermal decomposition of dispersed and bulk-like NOx species in model NOx trap materials. Applied Catalysis B: Environmental, 2005, 61, 164-175. | 20.2 | 42 |
| 60 | Polypyrrole/poly(methylmethacrylate) blend as selective sensor for acetone in lacquer. Talanta, 2003, 60, 25-30. | 5.5 | 41 |
| 61 | Preparation of supported POM catalysts for liquid phase oxydehydration of glycerol to acrylic acid. Journal of Molecular Catalysis A, 2013, 380, 49-56. | 4.8 | 41 |
| 62 | Thermally Induced Restructuring of Pd@CeO<sub>2</sub> and Pd@SiO<sub>2</sub> Nanoparticles as a Strategy for Enhancing Low-Temperature Catalytic Activity. ACS Catalysis, 2020, 10, 1731-1741. | 11.2 | 39 |
| 63 | Electrical conductivity response of polyaniline films to ethanolâ€“water mixtures. Synthetic Metals, 2002, 129, 303-308. | 3.9 | 37 |
| 64 | Oxygen Sensors: Materials and Applications. MRS Bulletin, 1999, 24, 44-48. | 3.5 | 36 |
| 65 | Selective conductivity response of polypyrrole-based sensor on flammable chemicals. Reactive and Functional Polymers, 2004, 61, 11-22. | 4.1 | 36 |
| 66 | Successive ionic layer deposition (SILD) as a new sensor technology: synthesis and modification of metal oxides. Measurement Science and Technology, 2006, 17, 1861-1869. | 2.6 | 36 |
| 67 | Nickel-catalyzed autothermal reforming of jet fuel surrogates: n-Dodecane, tetralin, and their mixture. Journal of Power Sources, 2007, 164, 344-350. | 7.8 | 36 |
| 68 | Fe<sub>2</sub>O<sub>3</sub>@SiTi coreâ€“shell catalyst for the selective catalytic reduction of NO<sub>x</sub> with NH<sub>3</sub>: activity improvement and HCl tolerance. Catalysis Science and Technology, 2018, 8, 3313-3320. | 4.1 | 36 |
| 69 | Magnesium oxide as a catalyst support: The influence of chlorine. Applied Catalysis, 1982, 3, 131-139. | 0.8 | 35 |
| 70 | Integrated ultra-thin-film gas sensors. Sensors and Actuators B: Chemical, 1994, 20, 55-62. | 7.8 | 35 |
| 71 | Evaluation of Ni/SDC as anode material for dry CH4 fueled Solid Oxide Fuel Cells. Journal of Power Sources, 2014, 248, 239-245. | 7.8 | 35 |
| 72 | Progress and future challenges in passive NO adsorption over Pd/zeolite catalysts. Catalysis Science and Technology, 2021, 11, 5986-6000. | 4.1 | 35 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Influence of chlorine on the surface area and morphology of TiO2. Applied Catalysis, 1985, 14, 119-131. | 0.8 | 33 |
| 74 | Determination of diffusion in polycrystalline platinum thin films. Journal of Applied Physics, 1999, 86, 4902-4907. | 2.5 | 33 |
| 75 | Pd model catalysts: Effect of air pulse length during redox aging on Pd redispersion. Applied Catalysis B: Environmental, 2018, 223, 76-90. | 20.2 | 33 |
| 76 | Insight into hydrothermal aging effect on deactivation of Pd/SSZ-13 as low-temperature NO adsorption catalyst: Effect of dealumination and Pd mobility. Applied Catalysis B: Environmental, 2021, 286, 119874. | 20.2 | 33 |
| 77 | Microstructure of a Pd/ceriaâ€“zirconia catalyst after high-temperature aging. Catalysis Letters, 1998, 53, 37-42. | 2.6 | 32 |
| 78 | Electrical conductivity responses of polyaniline films to SO2â€“N2 mixtures: effect of dopant type and doping level. Reactive and Functional Polymers, 2002, 53, 29-37. | 4.1 | 32 |
| 79 | DRIFTS study of photo-assisted catalytic CO + NO redox reaction over CuO/CeO2-TiO2. Catalysis Today, 2015, 258, 139-147. | 4.4 | 32 |
| 80 | One-pot oxydehydration of glycerol to value-added compounds over metal-doped SiW/HZSM-5 catalysts: Effect of metal type and loading. Chemical Engineering Journal, 2015, 275, 113-124. | 12.7 | 32 |
| 81 | Effects of oxide supports on ethylene epoxidation activity over Ag-based catalysts. Journal of Molecular Catalysis A, 2012, 358, 58-66. | 4.8 | 31 |
| 82 | Gas sensing based on surface oxidation/reduction of platinum-titania thin films I. Sensing film activation and characterization. Applied Surface Science, 1998, 125, 187-198. | 6.1 | 30 |
| 83 | Influence of thiophene on the isooctane reforming activity of Ni-based catalysts. Journal of Catalysis, 2010, 271, 140-152. | 6.2 | 30 |
| 84 | Structure sensitivity of reactions between cyclopropane and hydrogen on supported ruthenium catalysts. Journal of Catalysis, 1987, 108, 495-500. | 6.2 | 29 |
| 85 | Pd model catalysts: Effect of aging environment and lean redispersion. Applied Catalysis B: Environmental, 2016, 183, 343-360. | 20.2 | 29 |
| 86 | Effect of preparation methods on the catalytic activity of La0.9Sr0.1CoO3 perovskite for CO and C3H6 oxidation. Catalysis Today, 2021, 364, 7-15. | 4.4 | 29 |
| 87 | The microstructure of bimetallic Ru$z.sbnd;Cu/SiO2 catalysts: A chemisorption and analytical electron microscopy study. Journal of Catalysis, 1986, 100, 446-457. | 6.2 | 28 |
| 88 | Effect of metal particle size on sulfur tolerance of Ni catalysts during autothermal reforming of isooctane. Applied Catalysis A: General, 2011, 400, 203-214. | 4.3 | 28 |
| 89 | Neopentane reactions over bimetallic Pt$z.sbnd;Sn/Al2O3 and Pt$z.sbnd;Au/SiO2 catalysts. Journal of Catalysis, 1991, 132, 451-464. | 6.2 | 27 |
| 90 | Understanding the chemistry during the preparation of Pd/SSZ-13 for the low-temperature NO adsorption: The role of NH4-SSZ-13 support. Applied Catalysis B: Environmental, 2021, 282, 119611. | 20.2 | 27 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Metal dispersion of bimetallic catalysts via stepwise chemisorption and surface titration I. Ru$z.sbnd;Au/SiO2. Journal of Catalysis, 1985, 95, 271-283. | 6.2 | 26 |
| 92 | Morphology and surface uniformity growth in magnesium oxide dehydration. The Journal of Physical Chemistry, 1985, 89, 3761-3766. | 2.9 | 25 |
| 93 | Temperature-programmed desorption of methanol and oxidation of methanol on Ptâ€“Sn/Al2O3 catalysts. Chemical Engineering Journal, 2004, 97, 161-171. | 12.7 | 25 |
| 94 | Induced interaction between polypyrrole and SO2 via molecular sieve 13X. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 136, 78-86. | 3.5 | 24 |
| 95 | n-Dodecane reforming over monolith-based Ni catalysts: SEM study of axial carbon distribution profile. Applied Catalysis A: General, 2009, 356, 137-147. | 4.3 | 24 |
| 96 | In situ tracing of atom migration in Pt/NiPt hollow spheres during catalysis of CO oxidation. Chemical Communications, 2014, 50, 1804. | 4.1 | 24 |
| 97 | Electrical conductivity responses and interactions of poly(3-thiopheneacetic acid)/zeolites L, mordenite, beta and H2. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 140, 23-30. | 3.5 | 23 |
| 98 | Strontium-doped samarium manganite as cathode materials for oxygen reduction reaction in solid oxide fuel cells. Journal of Power Sources, 2015, 284, 272-278. | 7.8 | 23 |
| 99 | Electronic metal-support interactions in Pt/FeO nanospheres for CO oxidation. Catalysis Today, 2020, 355, 539-546. | 4.4 | 23 |
| 100 | Isooctane decomposition and carbon deposition over ceriaâ€“zirconia supported nickel catalysts. Applied Catalysis A: General, 2010, 386, 83-93. | 4.3 | 22 |
| 101 | Gasification characteristics of carbon species derived from model reforming compound over Ni/Ceâ€“Zrâ€“O catalysts. Catalysis Today, 2014, 233, 14-20. | 4.4 | 22 |
| 102 | Effect of Sn addition on improving the stability of Ni-Ce0.8Sm0.2O1.9 anode material for solid oxide fuel cells fed with dry CH4. Catalysis Today, 2019, 330, 209-216. | 4.4 | 22 |
| 103 | A micromachined surface work-function gas sensor for low-pressure oxygen detection. Sensors and Actuators B: Chemical, 1997, 42, 195-204. | 7.8 | 21 |
| 104 | Nature of the two-step temperature-programmed decomposition of PdO supported on alumina. Applied Catalysis A: General, 2014, 475, 420-426. | 4.3 | 21 |
| 105 | Catalytic oxidation of CO over Pt/Fe3O4 catalysts: Tuning O2 activation and CO adsorption. Frontiers of Environmental Science and Engineering, 2020, 14, 1. | 6.0 | 21 |
| 106 | Survivability of a silicon-based microelectronic gas-detector structure for high-temperature flow applications. Sensors and Actuators B: Chemical, 1996, 37, 27-35. | 7.8 | 20 |
| 107 | Gas sensing based on surface oxidation/reduction of platinum-titania thin films II. The role of chemisorbed oxygen in film sensitization. Applied Surface Science, 1998, 125, 199-207. | 6.1 | 20 |
| 108 | TPR Investigation of bimetallic Ru-Cu samples supported on SiO2, Al2O3 and MgO. Journal of Thermal Analysis, 1987, 32, 471-483. | 0.6 | 19 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | iso-Octane partial oxidation over Ni-Sn/Ce0.75Zr0.25O2 catalysts. Catalysis Today, 2008, 136, 214-221. | 4.4 | 19 |
| 110 | Facile, one-pot synthesis of Pd@CeO2 core@shell nanoparticles in aqueous environment by controlled hydrolysis of metalloorganic cerium precursor. Materials Letters, 2017, 206, 105-108. | 2.6 | 19 |
| 111 | Palladium redispersion at high temperature within the Pd@SiO2 core@shell structure. Catalysis Communications, 2018, 108, 73-76. | 3.3 | 19 |
| 112 | Temperature Programmed Desorption Spectra of Systems with Concentration Gradients in the Solid Lattice. The Journal of Physical Chemistry, 1996, 100, 11389-11395. | 2.9 | 18 |
| 113 | Activation of passive NOx adsorbers by pretreatment with reaction gas mixture. Chemical Engineering Journal, 2020, 399, 125727. | 12.7 | 18 |
| 114 | Ethane and propane hydrogenolysis on Ru catalysts. Journal of the Chemical Society Faraday Transactions I, 1982, 78, 2509. | 1.0 | 17 |
| 115 | Solid state synthesis and characterization of model hydrodesulfurization catalysts. Journal of Catalysis, 1989, 119, 388-399. | 6.2 | 17 |
| 116 | The Effect of Nb Loading on Catalytic Properties of Ni/Ce0.75Zr0.25O2 Catalyst for Methane Partial Oxidation. Journal of Natural Gas Chemistry, 2007, 16, 227-234. | 1.8 | 17 |
| 117 | Reactivity study of CO+NO reaction over Pd/Al2O3 and Pd/CeZrO2 catalysts. Catalysis Today, 2019, 323, 148-158. | 4.4 | 17 |
| 118 | Effect of small amounts of ethane on the selective oxidation of methane over silicic acid and quartz glass surfaces. Journal of the Chemical Society Chemical Communications, 1988, , 1298. | 2.0 | 16 |
| 119 | Characterization of carbon-supported rutheniumâ€“tin catalysts by high-resolution electron microscopy. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 2803-2807. | 1.7 | 16 |
| 120 | The effects of exposure time and pressure on the temperature-programmed desorption spectra of systems with bulk states. Surface Science, 1996, 355, L385-L392. | 1.9 | 16 |
| 121 | A silicon micromachined conductometric gas sensor with a maskless Pt sensing film deposited by selected-area CVD. Sensors and Actuators B: Chemical, 1996, 36, 312-319. | 7.8 | 16 |
| 122 | Ethylene Epoxidation Activity Over Ag-Based Catalysts on Different Nanocrystalline Perovskite Titanate Supports. Catalysis Letters, 2012, 142, 991-1002. | 2.6 | 16 |
| 123 | Application of high-resolution analytical electron microscopy to the analysis of automotive catalysts. Industrial & Engineering Chemistry Product Research and Development, 1985, 24, 6-10. | 0.5 | 15 |
| 124 | CO hydrogenation catalyzed by alumina-supported osmium: Particle size effects. Journal of Catalysis, 1985, 95, 370-384. | 6.2 | 15 |
| 125 | The influence of hydrazine reduction on metal dispersion and support morphology in bimetallic Ru$z.sbnd;Au/MgO catalysts. Journal of Catalysis, 1986, 98, 191-203. | 6.2 | 15 |
| 126 | Film Structure and Conductometric Hydrogen-Gas-Sensing Characteristics of Ultrathin Platinum Films. Langmuir, 1999, 15, 3307-3311. | 3.5 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | Carbon monoxide desorption from platinum chemically modified by sulfur. Surface Science, 2000, 464, 153-164. | 1.9 | 15 |
| 128 | Ptâ€“Sn/Al2O3 catalysts: effect of catalyst preparation and chemisorption methods on H2 and O2 uptake. Chemical Engineering Journal, 2004, 98, 99-104. | 12.7 | 15 |
| 129 | Oxidation of Oxygenated Volatile Organic Compound Over Monometallic and Bimetallic Ruâ€“Au Catalysts. Catalysis Letters, 2010, 138, 160-170. | 2.6 | 15 |
| 130 | Solid-state transformation of hollow silica microspheres into hierarchical ZSM-5 having tunable mesopores. Catalysis Communications, 2010, 11, 700-704. | 3.3 | 15 |
| 131 | Preparation of Au/Y2O3 and Au/NiO catalysts by co-precipitation and their oxidation activities. Materials Chemistry and Physics, 2011, 126, 212-219. | 4.0 | 15 |
| 132 | Comparative study on the influence of second metals on Ag-loaded mesoporous SrTiO3 catalysts for ethylene oxide evolution. Journal of Molecular Catalysis A, 2013, 372, 175-182. | 4.8 | 15 |
| 133 | Pd model catalysts: Effect of aging duration on lean redispersion. Applied Catalysis B: Environmental, 2016, 185, 189-202. | 20.2 | 15 |
| 134 | Preparation and activity of solid-state hydrodesulfurization catalysts. Journal of Catalysis, 1989, 120, 487-492. | 6.2 | 14 |
| 135 | Characteristics of silicon-micromachined gas sensors based on Pt/TiOx thin films. Sensors and Actuators B: Chemical, 1997, 42, 205-215. | 7.8 | 14 |
| 136 | Bimetallic catalysts: Discoveries, concepts, and applications. By John H. Sinfelt, John Wiley & Sons, 1983. XI+ 164 pp. AICHE Journal, 1985, 31, 1405-1405. | 3.6 | 13 |
| 137 | The role of the zeolite in the hydrogenolysis of C2 and C3 hydrocarbons on RuNaY catalysts. Journal of Catalysis, 1986, 97, 549-560. | 6.2 | 13 |
| 138 | Synthesis and evaluation of mesopore structured ZSM-5 and a CuZSM-5 catalyst for NH<sub>3</sub>-SCR reaction: studies of simulated exhaust and engine bench testing. RSC Advances, 2016, 6, 102570-102581. | 3.6 | 13 |
| 139 | Interaction of Hydrocarbons and Water With ZSM5. Studies in Surface Science and Catalysis, 1989, , 847-856. | 1.5 | 12 |
| 140 | A selected-area CVD method for deposition of sensing films on monolithically integrated gas detectors. IEEE Electron Device Letters, 1995, 16, 217-219. | 3.9 | 12 |
| 141 | A meanâ€field modeling study of the interaction between hydrogen and a palladium (110) single crystal. Journal of Chemical Physics, 1996, 105, 8398-8403. | 3.0 | 12 |
| 142 | In-situ elevated temperature imaging of thin films with a microfabricated hot stage for scanning probe microscopes. Applied Surface Science, 1999, 141, 119-128. | 6.1 | 12 |
| 143 | Reactivity of NH3 over (Fe)/H-ZSM-5 zeolite: Studies of temperature-programmed and steady-state reactions. Catalysis Today, 2011, 175, 2-11. | 4.4 | 12 |
| 144 | Improving the thermal stability and n-butanol oxidation activity of Ag-TiO2 catalysts by controlling the catalyst architecture and reaction conditions. Applied Catalysis B: Environmental, 2021, 297, 120476. | 20.2 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | New approaches to water purification for resource-constrained settings: Production of activated biochar by chemical activation with diammonium hydrogenphosphate. Frontiers of Chemical Science and Engineering, 2018, 12, 194-208. | 4.4 | 12 |
| 146 | Model hydrodesulfurization catalysts: Solid state synthesis and characterization of iron containing molybdenum sulphide. Applied Catalysis, 1989, 56, 281-295. | 0.8 | 11 |
| 147 | A thermogravimetric determination of dispersed and bulk-like barium species supported on Î³-alumina. Journal of Materials Chemistry, 2005, 15, 366-368. | 6.7 | 11 |
| 148 | Activity of Ethylene Epoxidation over High Surface Area Alumina Support Au-Ag Catalysts. Journal of Chemical Engineering of Japan, 2006, 39, 321-326. | 0.6 | 11 |
| 149 | Resistance measurements of platinum-titania thin film gas detectors in ultra-high vacuum (UHV) and reactive ion etcher (RIE) systems. Sensors and Actuators B: Chemical, 1997, 41, 143-151. | 7.8 | 10 |
| 150 | Hydrogen production from partial oxidation of iso-octane over Ni/Ce0.75Zr0.25O2 and Ni/Î²â€³-Al2O3 catalysts. Applied Catalysis A: General, 2006, 302, 133-139. | 4.3 | 10 |
| 151 | Effect of diluent gas on ethylene epoxidation activity over various Ag-based catalysts on selective oxide supports. Journal of Molecular Catalysis A, 2014, 386, 5-13. | 4.8 | 10 |
| 152 | Crystalline structure refinements and properties of Ni/TiO2 and Ni/TiO2-Ce catalysts and application to catalytic reaction of â€œCO+NOâ€• Applied Catalysis A: General, 2014, 478, 21-29. | 4.3 | 10 |
| 153 | Improvement of CO Sensitivity in GaN-Based Gas Sensors. IEICE Transactions on Electronics, 2006, E89-C, 1047-1051. | 0.6 | 10 |
| 154 | Adsorption-induced conductance changes of thin Pt films and PtPd/TiO2 gas sensors. Applied Surface Science, 1987, 29, 341-360. | 6.1 | 9 |
| 155 | A microstructural investigation of model solid state hydrodesulfurization catalysts. Journal of Solid State Chemistry, 1990, 87, 378-395. | 2.9 | 9 |
| 156 | Hydrogen desorption from polycrystalline platinum chemically modified by sulfur pre-coverage. Surface Science, 2002, 501, 214-234. | 1.9 | 9 |
| 157 | Structural evolution of NiAu nanoparticles under ambient conditions directly revealed by atom-resolved imaging combined with DFT simulation. Nanoscale, 2014, 6, 12898-12904. | 5.6 | 9 |
| 158 | CO hydrogenation over alumina-supported sulfide cluster catalysts. AICHE Journal, 1989, 35, 109-119. | 3.6 | 8 |
| 159 | <title>Optimization of thin-film gas sensors for environmental monitoring through theoretical modeling</title>. , 1999, , . | | 7 |
| 160 | Sustainable H2 production from ethanol steam reforming over a macro-mesoporous Ni/Mg-Al-O catalytic monolith. Frontiers of Chemical Science and Engineering, 2013, 7, 270-278. | 4.4 | 7 |
| 161 | Characterization and hydrodesulfurization activity studies of unpromoted molybdenum sulfides prepared by elemental solid state reaction. Journal of Catalysis, 1992, 137, 333-345. | 6.2 | 6 |
| 162 | Characterization of carbon supported catalysts by electron microscopy techniques. Materials Chemistry and Physics, 1996, 44, 145-150. | 4.0 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Successive ionic layer deposition: possibilities for gas sensor applications. Journal of Physics: Conference Series, 2005, 15, 45-50. | 0.4 | 6 |
| 164 | Steam effect on NO x reduction over lean NO x trap Ptâ€“BaO/Al2O3 model catalyst. Topics in Catalysis, 2007, 46, 39-47. | 2.8 | 6 |
| 165 | Effects of synthesis conditions on dimensions, structure, and oxygen content of photocatalytically active titania nanotubes. Journal of Materials Research, 2010, 25, 89-95. | 2.6 | 5 |
| 166 | Characterization of uniform, nanodispersed NOx storage catalyst materials synthesized by successive ionic layer deposition. Catalysis Communications, 2010, 11, 896-900. | 3.3 | 5 |
| 167 | Metal dispersion of bimetallic catalysts via stepwise chemisorption and surface titration II. Ru$z.sbnd;Au/MgO. Journal of Catalysis, 1985, 95, 284-288. | 6.2 | 4 |
| 168 | Solid state synthesis and activity of a Cu-containing hydrodesulphurization catalyst. Journal of the Chemical Society Chemical Communications, 1989, , 1833. | 2.0 | 4 |
| 169 | Chemisorption studies of promoted solid-state HDS catalysts. Journal of Catalysis, 1992, 135, 427-433. | 6.2 | 4 |
| 170 | Gas Sensing Characteristics of Ultrathin TiO2-xFilms Investigated with XPS, TPD andIn SituResistance Measurements. Surface and Interface Analysis, 1997, 25, 76-80. | 1.8 | 4 |
| 171 | Using of SILD technology for surface modification of SnO2 films for gas sensor applications. Materials Research Society Symposia Proceedings, 2002, 750, 1. | 0.1 | 4 |
| 172 | The effect of downstream synthesis gas feeding on Fischerâ€“Tropsch product distributions. Fuel Processing Technology, 2009, 90, 1009-1015. | 7.2 | 4 |
| 173 | Chemical surface modification of beaded activated carbon: A strategy to inhibit heel accumulation from VOC. Journal of Industrial and Engineering Chemistry, 2021, 103, 205-215. | 5.8 | 4 |
| 174 | Electron microdiffraction study of bimetallic Ru$z.sbnd;Au/MgO catalysts. Journal of Catalysis, 1986, 100, 437-445. | 6.2 | 3 |
| 175 | Higher-order corrections to the pi criterion using center manifold theory. , 0, , . | | 3 |
| 176 | Recent Developments in Mixed Ionic and Electronic Conducting Electrodes for the Alkali Metal Thermal Electric Converter (AMTEC). AIP Conference Proceedings, 2003, , . | 0.4 | 3 |
| 177 | Investigation on NOx Storage Characteristics and Aging Influence of Lean NOx Trap Model Catalyst BaO-Pt/Al2O3. , 0, , . | | 3 |
| 178 | Fabrication of conductometric gas-sensing films by selected area chemical-vapor deposition. AICHE Journal, 1997, 43, 2760-2764. | 3.6 | 2 |
| 179 | Effect of Support on Ethylene Epoxidation on Ag, Au, and Au-Ag Catalysts. , 2008, , 283-296. | | 2 |
| 180 | Catalytic reforming of liquid hydrocarbons for on-board solid oxide fuel cell auxiliary power units. Catalysis, 0, , 56-93. | 1.0 | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Stabilizing Highly Dispersed Halo Sites in Thermally Restructured Palladium Core@Shell Nanoparticles for Improved Catalyst Activity and Durability. ACS Applied Nano Materials, 2021, 4, 10985-10998. | 5.0 | 2 |
| 182 | Characterization of Multilayer Thin Film Structures for Gas Sensor Applications. Materials Research Society Symposia Proceedings, 1995, 382, 477. | 0.1 | 1 |
| 183 | Ni-Based Monolith n-Dodecane Reforming Catalysts: Optimization of O/C and Effect of Ni Interaction with Cordierite. Industrial & Engineering Chemistry Research, 2015, 54, 4136-4147. | 3.7 | 1 |
| 184 | Electron microscopy and krypton adsorption characterization of high-purity MgO powder. Journal of Materials Research, 1986, 1, 114-119. | 2.6 | 0 |
| 185 | Microstructure and Activity of Thin Films for a Microelectronic Gas Sensor. Materials Research Society Symposia Proceedings, 1995, 403, 559. | 0.1 | 0 |
| 186 | Erratum to â€œThe effects of exposure time and pressure on the temperature-programmed desorption spectra of systems with bulk statesâ€•[Surface Science 355 (1996) L385]. Surface Science, 1996, 367, L32. | 1.9 | 0 |