# Hans Niemantsverdriet

List of Publications by Year
in descending order



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|---|---|---|---|
| 358 papers | 15,771 citations | 19655 61 h-index | 30920 102 g-index |
| 385 all docs | 385 docs citations | 385 times ranked | 12706 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Electrocatalysts for the generation of hydrogen, oxygen and synthesis gas. Progress in Energy and Combustion Science, 2017, 58, 1-35. | 31.2 | 506 |
| 2 | Basic Reaction Steps in the Sulfidation of Crystalline MoO3to MoS2, As Studied by X-ray Photoelectron and Infrared Emission Spectroscopy. The Journal of Physical Chemistry, 1996, 100, 14144-14150. | 2.9 | 433 |
| 3 | Behavior of metallic iron catalysts during Fischer-Tropsch synthesis studied with MÃ¶ssbauer spectroscopy, x-ray diffraction, carbon content determination, and reaction kinetic measurements. The Journal of Physical Chemistry, 1980, 84, 3363-3370. | 2.9 | 381 |
| 4 | Surface Science Approach to Modeling Supported Catalysts. Catalysis Reviews - Science and Engineering, 1997, 39, 77-168. | 12.9 | 374 |
| 5 | Structure of Amorphous MoS3. The Journal of Physical Chemistry, 1995, 99, 9194-9200. | 2.9 | 364 |
| 6 | Thermal desorption analysis: Comparative test of ten commonly applied procedures. Surface Science, 1990, 233, 355-365. | 1.9 | 354 |
| 7 | Fundamental understanding of deactivation and regeneration of cobalt Fischerâ€“Tropsch synthesis catalysts. Catalysis Today, 2010, 154, 271-282. | 4.4 | 301 |
| 8 | Sulfidation Study of Molybdenum Oxide Using MoO3/SiO2/Si(100) Model Catalysts and Mo-IV3-Sulfur Cluster Compounds. Journal of Catalysis, 1995, 157, 698-705. | 6.2 | 208 |
| 9 | Carbon deposition as a deactivation mechanism of cobalt-based Fischerâ€“Tropsch synthesis catalysts under realistic conditions. Applied Catalysis A: General, 2009, 354, 102-110. | 4.3 | 206 |
| 10 | Relationship between Iron Carbide Phases (Îµ-Fe<sub>2</sub>C, Fe<sub>7</sub>C<sub>3</sub>, and) Tj ETQq0 0 0 rgBT /Overlock 10 Catalysts. ACS Catalysis, 2018, 8, 3304-3316. | 11.2 | 200 |
| 11 | Cobalt Fischer-Tropsch synthesis: Deactivation by oxidation?. Catalysis Today, 2007, 123, 293-302. | 4.4 | 189 |
| 12 | Chemical Kinetics and Catalysis. Fundamental and Applied Catalysis, 1995, , . | 0.9 | 184 |
| 13 | Cellulose Model SurfacesSimplified Preparation by Spin Coating and Characterization by X-ray Photoelectron Spectroscopy, Infrared Spectroscopy, and Atomic Force Microscopy. Langmuir, 2003, 19, 5735-5741. | 3.5 | 176 |
| 14 | The conversion of di-Ïƒ bonded ethylene to ethylidyne on Pt(111) monitored with sum frequency generation: evidence for an ethylidene (or ethyl) intermediate. Surface Science, 1995, 328, 111-118. | 1.9 | 172 |
| 15 | The dissociation kinetics of NO on Rh(111) as studied by temperature programmed static secondary ion mass spectrometry and desorption. Journal of Chemical Physics, 1994, 101, 10052-10063. | 3.0 | 159 |
| 16 | On the time-dependent behavior of iron catalysts in Fischer-Tropsch synthesis. Journal of Catalysis, 1981, 72, 385-388. | 6.2 | 155 |
| 17 | Highly dispersed platinum in metal organic framework NH2-MIL-101(Al) containing phosphotungstic acid â€“ Characterization and catalytic performance. Journal of Catalysis, 2012, 289, 42-52. | 6.2 | 147 |
| 18 | Light-tuned selective photosynthesis of azo- and azoxy-aromatics using graphitic C3N4. Nature Communications, 2018, 9, 60. | 12.8 | 143 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Correlation between Hydrodesulfurization Activity and Order of Ni and Mo Sulfidation in Planar Silica-Supported NiMo Catalysts: The Influence of Chelating Agents. Journal of Catalysis, 2001, 197, 26-33. | 6.2 | 141 |
| 20 | Characterization of polymer solar cells by TOF-SIMS depth profiling. Applied Surface Science, 2003, 203-204, 547-550. | 6.1 | 140 |
| 21 | Sulfidation mechanism by molybdenum catalysts supported on silica/silicon(100) model support studied by surface spectroscopy. The Journal of Physical Chemistry, 1993, 97, 6477-6483. | 2.9 | 130 |
| 22 | XANES study of the susceptibility of nano-sized cobalt crystallites to oxidation during realistic Fischerâ€“Tropsch synthesis. Applied Catalysis A: General, 2006, 312, 12-19. | 4.3 | 128 |
| 23 | Structure and catalytic properties of molybdenum oxide catalysts supported on zirconia. Journal of Catalysis, 2004, 226, 283-291. | 6.2 | 124 |
| 24 | Mars-van Krevelen-like Mechanism of CO Hydrogenation on an Iron Carbide Surface. Catalysis Letters, 2009, 133, 257-261. | 2.6 | 116 |
| 25 | The role of electron donors on lateral surfaces of MgCl2-supported Zieglerâ€“Natta catalysts: Observation by AFM and SEM. Journal of Catalysis, 2008, 257, 81-86. | 6.2 | 113 |
| 26 | Sulfidation and Thiophene Hydrodesulfurization Activity of Nickel Tungsten Sulfide Model Catalysts, Prepared without and with Chelating Agents. Journal of Catalysis, 2000, 196, 180-189. | 6.2 | 112 |
| 27 | Low Surface Energy Polymeric Films from Novel Fluorinated Blocked Isocyanates. Macromolecules, 2004, 37, 408-413. | 4.8 | 110 |
| 28 | A DFT Study of the Adsorption and Dissociation of CO on Fe(100): Influence of Surface Coverage on the Nature of Accessible Adsorption States. ChemPhysChem, 2005, 6, 254-260. | 2.1 | 106 |
| 29 | Preparation and characterisation of spherical Co/SiO2 model catalysts with well-defined nano-sized cobalt crystallites and a comparison of their stability against oxidation with water. Journal of Catalysis, 2006, 239, 326-339. | 6.2 | 103 |
| 30 | In situ, Cr K-edge XAS study on the Phillips catalyst: activation and ethylene polymerization. Journal of Catalysis, 2005, 230, 98-108. | 6.2 | 102 |
| 31 | Surface roughness effects in quantitative XPS: magic angle for determining overlayer thickness. Applied Surface Science, 1997, 115, 342-346. | 6.1 | 97 |
| 32 | Surface Science Model of a Working Cobalt-Promoted Molybdenum Sulfide Hydrodesulfurization Catalyst:Â Characterization and Reactivity. The Journal of Physical Chemistry, 1996, 100, 17722-17724. | 2.9 | 96 |
| 33 | A comparison of cobalt and iron based slurry phase Fischerâ€“Tropsch synthesis. Catalysis Today, 2013, 215, 112-120. | 4.4 | 95 |
| 34 | Structure sensitivity in the CO oxidation on rhodium: Effect of adsorbate coverages on oxidation kinetics on Rh(100) and Rh(111). Journal of Chemical Physics, 2000, 113, 5457. | 3.0 | 93 |
| 35 | Hydrogen spillover in the Fischerâ€“Tropsch synthesis: An analysis of platinum as a promoter for cobaltâ€“alumina catalysts. Catalysis Today, 2016, 261, 17-27. | 4.4 | 91 |
| 36 | Deposition of inorganic salts from solution on flat substrates by spin-coating: theory, quantification and application to model catalysts. Applied Surface Science, 1995, 84, 339-346. | 6.1 | 89 |

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| 37 | Fischerâ€“Tropsch Synthesis: Catalysts and Chemistry. , 2013, , 525-557. | | 89 |
| 38 | Thermal desorption of strained monoatomic Ag and Au layers from Ru(001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1987, 5, 875-878. | 2.1 | 88 |
| 39 | Alumina-Supported Cuâ€“Ag Catalysts for Ammonia Oxidation to Nitrogen at Low Temperature. Journal of Catalysis, 2002, 206, 60-70. | 6.2 | 86 |
| 40 | Small-particle effects in Moessbauer spectra of a carbon-supported iron catalyst. The Journal of Physical Chemistry, 1985, 89, 67-72. | 2.9 | 85 |
| 41 | Insight into the formation of the active phases in supported NiW hydrotreating catalysts. Applied Catalysis A: General, 2007, 322, 16-32. | 4.3 | 85 |
| 42 | Influence of Support-Interaction on the Sulfidation Behavior and Hydrodesulfurization Activity of Al2O3-Supported W, CoW, and NiW Model Catalysts. Journal of Physical Chemistry B, 2002, 106, 5897-5906. | 2.6 | 82 |
| 43 | Atomic and Polymeric Carbon on Co(0001): Surface Reconstruction, Graphene Formation, and Catalyst Poisoning. Journal of Physical Chemistry C, 2012, 116, 11575-11583. | 3.1 | 82 |
| 44 | Spectroscopic insights into cobalt-catalyzed Fischer-Tropsch synthesis: A review of the carbon monoxide interaction with single crystalline surfaces of cobalt. Journal of Catalysis, 2016, 342, 1-16. | 6.2 | 80 |
| 45 | Novel method for preparing cellulose model surfaces by spin coating. Polymer, 2003, 44, 3621-3625. | 3.8 | 79 |
| 46 | Solid Base Bi<sub>24</sub>O<sub>31</sub>Br<sub>10</sub>(OH)<sub>Î´</sub> with Active Lattice Oxygen for the Efficient Photoâ€Oxidation of Primary Alcohols to Aldehydes. Angewandte Chemie - International Edition, 2019, 58, 6265-6270. | 13.8 | 78 |
| 47 | Bonding of Supported Chromium during Thermal Activation of the CrOx/SiO2(Phillips) Ethylene Polymerization Catalyst. Journal of Physical Chemistry B, 2001, 105, 3073-3078. | 2.6 | 77 |
| 48 | DFT study of CO and NO adsorption on low index and stepped surfaces of gold. Surface Science, 2009, 603, 2734-2741. | 1.9 | 77 |
| 49 | Working Surface Science Model for the Phillips Ethylene Polymerization Catalyst:â€‰ Preparation and Testing. Journal of Physical Chemistry B, 1997, 101, 8559-8563. | 2.6 | 76 |
| 50 | Elementary steps in Fischerâ€“Tropsch synthesis: CO bond scission, CO oxidation and surface carbiding on Co(0001). Surface Science, 2016, 648, 60-66. | 1.9 | 76 |
| 51 | The impact of cobalt aluminate formation on the deactivation of cobalt-based Fischerâ€“Tropsch synthesis catalysts. Catalysis Today, 2011, 171, 192-200. | 4.4 | 75 |
| 52 | Relating adatom emission to improved durability of Ptâ€“Pd diesel oxidation catalysts. Journal of Catalysis, 2015, 328, 151-164. | 6.2 | 75 |
| 53 | Characterization of surface phases in bimetallic FeRh/SiO2 catalysts by in situ Mï¿½ssbauer spectroscopy at cryogenic temperatures. Journal of Catalysis, 1984, 89, 138-149. | 6.2 | 74 |
| 54 | CO/Rh(111): Vibrational frequency shifts and lateral interactions in adsorbate layers. Journal of Chemical Physics, 2001, 115, 8209-8216. | 3.0 | 74 |

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| 55 | Effects of manganese oxide and sulphate on the olefin selectivity of iron catalysts in the fischer tropsch reaction. Applied Catalysis, 1982, 2, 273-288. | 0.8 | 70 |
| 56 | The compensation effect and the manifestation of lateral interactions in thermal desorption spectroscopy. Applied Surface Science, 1988, 31, 211-219. | 6.1 | 69 |
| 57 | The adsorption of CO on Rh(100): Reflection absorption infrared spectroscopy, low energy electron diffraction, and thermal desorption spectroscopy. Journal of Chemical Physics, 1994, 101, 10126-10133. | 3.0 | 69 |
| 58 | Title is missing!. Topics in Catalysis, 2000, 13, 99-108. | 2.8 | 69 |
| 59 | Basic Reaction Steps in the Sulfidation of Crystalline Tungsten Oxides. Journal of Physical Chemistry B, 2002, 106, 3449-3457. | 2.6 | 68 |
| 60 | Elementary reactions of CO and H2 on C-terminated Ï‡-Fe5C2(0 0 1) surfaces. Journal of Catalysis, 2014, 317, 158-166. | 6.2 | 67 |
| 61 | The Outermost Atomic Layer of Thin Films of Fluorinated Polymethacrylates. Langmuir, 2004, 20, 6344-6351. | 3.5 | 66 |
| 62 | The analysis of temperature programmed desorption experiments of systems with lateral interactions; implications of the compensation effect. Surface Science, 2003, 546, 159-169. | 1.9 | 63 |
| 63 | Promoting Synergy in CoW Sulfide Hydrotreating Catalysts by Chelating Agents. Journal of Catalysis, 2001, 200, 194-196. | 6.2 | 62 |
| 64 | The interfaces of poly(p-phenylene vinylene) and fullerene derivatives with Al, LiF, and Al/LiF studied by secondary ion mass spectroscopy and x-ray photoelectron spectroscopy: Formation of AlF3 disproved. Journal of Chemical Physics, 2002, 117, 5031-5035. | 3.0 | 61 |
| 65 | Olivine as tar removal catalyst in biomass gasification: Catalyst dynamics under model conditions. Applied Catalysis B: Environmental, 2013, 130-131, 168-177. | 20.2 | 61 |
| 66 | Layered Antiferromagnetic Ordering in the Most Active Perovskite Catalysts for the Oxygen Evolution Reaction. ChemCatChem, 2016, 8, 2968-2974. | 3.7 | 61 |
| 67 | Interaction of small molecules with Au(310): Decomposition of NO. Applied Catalysis A: General, 2005, 291, 93-97. | 4.3 | 60 |
| 68 | Ostwald ripening on a planar Co/SiO2 catalyst exposed to model Fischerâ€“Tropsch synthesis conditions. Journal of Catalysis, 2015, 328, 123-129. | 6.2 | 60 |
| 69 | In Situ Surface Oxidation Study of a Planar Co/SiO2/Si(100) Model Catalyst with Nanosized Cobalt Crystallites under Model Fischerâ"Tropsch Synthesis Conditions. Journal of Physical Chemistry B, 2006, 110, 8657-8664. | 2.6 | 59 |
| 70 | Introducing a new surface science model for Zieglerâ€“Natta catalysts: Preparation, basic characterization and testing. Journal of Catalysis, 2007, 247, 129-136. | 6.2 | 59 |
| 71 | A surface science model for the Phillips ethylene polymerization catalyst: thermal activation and polymerization activity. Journal of Catalysis, 2004, 223, 134-141. | 6.2 | 58 |
| 72 | Efficient Solar-Driven Hydrogen Transfer by Bismuth-Based Photocatalyst with Engineered Basic Sites. Journal of the American Chemical Society, 2018, 140, 16711-16719. | 13.7 | 58 |

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| 73 | Environmental Transmission Electron Microscopy (ETEM) Studies of Single Iron Nanoparticle Carburization in Synthesis Gas. ACS Catalysis, 2017, 7, 4867-4875. | 11.2 | 56 |
| 74 | Characterization and Reactivity of Pd/MgO and Pd/Î³-Al2O3 Catalysts in the Selective Hydrogenolysis of CCl2F2â€. Journal of Physical Chemistry B, 2002, 106, 1024-1031. | 2.6 | 55 |
| 75 | Ethanol Decomposition on Co(0001): Câˆ’O Bond Scission on a Close-Packed Cobalt Surface. Journal of Physical Chemistry Letters, 2010, 1, 1767-1770. | 4.6 | 55 |
| 76 | Direct versus Hydrogenâ€Assisted CO Dissociation on the Feâ€‰(100) Surface: a DFT Study. ChemPhysChem, 2012, 13, 89-91. | 2.1 | 55 |
| 77 | Thermally cured low surface-tension epoxy films. Polymer, 2005, 46, 10531-10537. | 3.8 | 53 |
| 78 | Fundamental issues on practical Fischerâ€“Tropsch catalysts: How surface science can help. Catalysis Today, 2014, 228, 106-112. | 4.4 | 52 |
| 79 | Photosystem II Acts as a Spin-Controlled Electron Gate during Oxygen Formation and Evolution. Journal of the American Chemical Society, 2017, 139, 16604-16608. | 13.7 | 52 |
| 80 | Enhanced CO2 adsorption in nano-ZIF-8 modified by solvent assisted ligand exchange. Microporous and Mesoporous Materials, 2018, 262, 98-105. | 4.4 | 52 |
| 81 | NiP<sub>2</sub>: A Story of Two Divergent Polymorphic Multifunctional Materials. Chemistry of Materials, 2019, 31, 3407-3418. | 6.7 | 52 |
| 82 | Mossbauer studies of ultrafine iron-containing particles on a carbon support. Journal of Physics Condensed Matter, 1992, 4, 6555-6568. | 1.8 | 51 |
| 83 | Preparation of zirconium oxide on silica and characterization by X-ray photoelectron spectroscopy, secondary ion mass spectrometry, temperature programmed oxidation and infra-red spectroscopy. Applied Catalysis, 1991, 70, 53-71. | 0.8 | 50 |
| 84 | Polyethylene Formation on a Planar Surface Science Model of a Chromium Oxide Polymerization Catalyst. Journal of Catalysis, 1999, 183, 1-5. | 6.2 | 50 |
| 85 | Ptâˆ’Co/SiO2Bimetallic Planar Model Catalysts for Selective Hydrogenation of Crotonaldehyde. Journal of Physical Chemistry B, 2004, 108, 17905-17914. | 2.6 | 50 |
| 86 | The Effect of Water on the Stability of Iron Oxide and Iron Carbide Nanoparticles in Hydrogen and Syngas Followed by in Situ X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 7367-7373. | 3.1 | 50 |
| 87 | A Density Functional Theory Study on the Effect of Zeroâ€Point Energy Corrections on the Methanation Profile on Fe(100). ChemPhysChem, 2012, 13, 1591-1596. | 2.1 | 50 |
| 88 | Mechanistic Insight into the Interaction Between a Titanium Dioxide Photocatalyst and Pd Cocatalyst for Improved Photocatalytic Performance. ACS Catalysis, 2016, 6, 4239-4247. | 11.2 | 50 |
| 89 | Thickness determination of uniform overlayers on rough substrates by angle-dependent XPS. Applied Surface Science, 1995, 89, 69-76. | 6.1 | 49 |
| 90 | Lateral Interactions in the Dissociation Kinetics of NO on Rh(100)â€. Journal of Physical Chemistry B, 2000, 104, 3058-3066. | 2.6 | 49 |

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| 91 | Activation and Deactivation of Gold/Ceriaâ€“Zirconia in the Lowâ€Temperature Waterâ€“Gas Shift Reaction. Angewandte Chemie - International Edition, 2017, 56, 16037-16041. | 13.8 | 49 |
| 92 | Ligand effects in rhodium-catalyzed hydroformylation with bisphosphines: steric or electronic?. Catalysis Science and Technology, 2017, 7, 1404-1414. | 4.1 | 48 |
| 93 | A MÃ¶ssbauer study of surface effects on iron Fischer-Tropsch catalysts. Applications of Surface Science, 1982, 10, 302-313. | 1.0 | 47 |
| 94 | Combining density-functional calculations with kinetic models: NO/Rh(111). Journal of Chemical Physics, 2003, 118, 7081-7089. | 3.0 | 47 |
| 95 | Is there a correlation between catalyst particle size and CNT diameter?. Carbon, 2009, 47, 2002-2013. | 10.3 | 47 |
| 96 | Mechanistic insight into carbon-carbon bond formation on cobalt under simulated Fischer-Tropsch synthesis conditions. Nature Communications, 2020, 11, 750. | 12.8 | 47 |
| 97 | Mï¿½ssbauer and X-ray photoelectron spectroscopic evidence for the structure of supported bimetallic catalysts: FeRu, FeRh, FePd, FeIr, and FePt on SiO2. Journal of Catalysis, 1985, 96, 58-71. | 6.2 | 46 |
| 98 | Surface composition of Pt-Rh alloys; The role of lattice vibrational entropy. Surface Science, 1986, 178, 880-887. | 1.9 | 46 |
| 99 | A DFT Study of the Adsorption and Dissociation of CO on Sulfur-Precovered Fe(100). Journal of Physical Chemistry B, 2006, 110, 13897-13904. | 2.6 | 46 |
| 100 | Adsorption of ammonia on the rhodium (111), (100), and stepped (100) surfaces: An ab initio and experimental study. Journal of Chemical Physics, 1999, 111, 8124-8130. | 3.0 | 45 |
| 101 | Formation of cobaltâ€“molybdenum sulfides in hydrotreating catalysts: a surface science approach. Applied Surface Science, 1999, 144-145, 380-384. | 6.1 | 45 |
| 102 | Polymerization and Crystallization of Polyethylene on a Flat Model Catalyst. Macromolecules, 1999, 32, 8910-8913. | 4.8 | 45 |
| 103 | Planar model system for olefin polymerization: the Phillips CrO x /SiO2 catalyst. Topics in Catalysis, 2000, 13, 67-74. | 2.8 | 45 |
| 104 | A Preparation Method for Well-Defined Crystallites of Mgcl2-Supported Ziegler-Natta Catalysts and their Observation by AFM and SEM. Macromolecular Rapid Communications, 2007, 28, 1466-1471. | 3.9 | 45 |
| 105 | Reflections on the Fischer-Tropsch synthesis: Mechanistic issues from a surface science perspective. Catalysis Today, 2016, 275, 100-110. | 4.4 | 45 |
| 106 | Hydrogen from electrochemical reforming of C1â€“C3 alcohols using proton conducting membranes. International Journal of Hydrogen Energy, 2017, 42, 10762-10774. | 7.1 | 45 |
| 107 | The adsorption of NH3 on Rh(111). Surface Science, 1996, 369, 23-35. | 1.9 | 44 |
| 108 | Chemical looping capabilities of olivine, used as a catalyst in indirect biomass gasification. Applied Catalysis B: Environmental, 2014, 145, 216-222. | 20.2 | 44 |

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| 109 | Methane, formaldehyde and methanol formation pathways from carbon monoxide and hydrogen on the (0 0 1) surface of the iron carbide Ï‡-Fe5C2. Journal of Catalysis, 2015, 325, 9-18. | 6.2 | 44 |
| 110 | Quantification of lateral repulsion between coadsorbed CO and N on Rh(100) using temperature-programmed desorption, low-energy electron diffraction, and Monte Carlo simulations. Journal of Chemical Physics, 2003, 119, 524-532. | 3.0 | 43 |
| 111 | In Situ ATR-FTIR Studies on MgCl<sub>2</sub>-Diisobutyl Phthalate Interactions in Thin Film Zieglerâ€“Natta Catalysts. Langmuir, 2012, 28, 2643-2651. | 3.5 | 43 |
| 112 | Cu Model Catalyst Dynamics and CO Oxidation Kinetics Studied by Simultaneous in Situ UVâ€“Vis and Mass Spectroscopy. ACS Catalysis, 2016, 6, 2867-2876. | 11.2 | 43 |
| 113 | Rationally Designed Metal Cocatalyst for Selective Photosynthesis of Bibenzyls via Dehalogenative Câ€“C Homocoupling. ACS Catalysis, 2021, 11, 4338-4348. | 11.2 | 43 |
| 114 | Catalytic Role of Metal Nanoparticles in Selectivity Control over Photodehydrogenative Coupling of Primary Amines to Imines and Secondary Amines. ACS Catalysis, 2021, 11, 6656-6661. | 11.2 | 43 |
| 115 | Oxygen Adsorption and Water Formation on Co(0001). Journal of Physical Chemistry C, 2016, 120, 4833-4842. | 3.1 | 42 |
| 116 | Intrinsic kinetics of thiophene hydrodesulfurization on a sulfided NiMo/SiO2 planar model catalyst. Journal of Catalysis, 2004, 221, 541-548. | 6.2 | 40 |
| 117 | Iron oxide nanoparticles on flat oxidic surfacesâ€”Introducing a new model catalyst for Fischerâ€“Tropsch catalysis. Catalysis Today, 2010, 154, 142-148. | 4.4 | 39 |
| 118 | Cobalt Fischerâ€“Tropsch Catalyst Regeneration: The Crucial Role of the Kirkendall Effect for Cobalt Redispersion. Topics in Catalysis, 2011, 54, 811-816. | 2.8 | 39 |
| 119 | Role of ZnO and CeO<sub>x</sub> in Cu-Based Model Catalysts in Activation of H<sub>2</sub>O and CO<sub>2</sub> Dynamics Studied by in Situ Ultravioletâ€“Visible and X-ray Photoelectron Spectroscopy. ACS Catalysis, 2016, 6, 7994-8003. | 11.2 | 39 |
| 120 | Cobalt and cobalt carbide on alumina/NiAl(110) as model catalysts. Catalysis Science and Technology, 2017, 7, 5893-5899. | 4.1 | 39 |
| 121 | Electronic Modifictions in Supported Palladium Catalysts. Studies in Surface Science and Catalysis, 1994, 84, 909-916. | 1.5 | 38 |
| 122 | Low surface energy polymeric films from partially fluorinated photocurable solventless liquid oligoesters. Polymer Bulletin, 2001, 47, 321-328. | 3.3 | 38 |
| 123 | MÃ¶ssbauer investigation of bimetallic FeRu/SiO2 and FeRh/SiO2 fischer-tropsch catalysts. Journal of Molecular Catalysis, 1984, 25, 285-293. | 1.2 | 37 |
| 124 | Providing Fundamental and Applied Insights into Fischerâ€“Tropsch Catalysis: Sasolâ€“Eindhoven University of Technology Collaboration. ACS Catalysis, 2016, 6, 3840-3855. | 11.2 | 37 |
| 125 | TiO2-Supported Mo Model Catalysts: Ti as Promoter for Thiophene HDS?. Catalysis Letters, 2002, 79, 149-155. | 2.6 | 36 |
| 126 | Preparation of a rhodium catalyst from rhodium trichloride on a flat, conducting alumina support studied with static secondary ion mass spectrometry and monochromatic X-ray photoelectron spectroscopy. Catalysis Letters, 1993, 17, 81-95. | 2.6 | 35 |

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| 127 | Direct Catalytic Route to Superhydrophobic Polyethylene Films. Langmuir, 2006, 22, 7956-7959. | 3.5 | 35 |
| 128 | The Surface Chemistry of Water on Fe(100): A Density Functional Theory Study. ChemPhysChem, 2012, 13, 1583-1590. | 2.1 | 35 |
| 129 | Hydrogen spillover in the Fischerâ€“Tropsch synthesis: An analysis of gold as a promoter for cobaltâ€“alumina catalysts. Catalysis Today, 2016, 275, 27-34. | 4.4 | 35 |
| 130 | Oxygen Evolution Reaction on Perovskite Electrocatalysts with Localized Spins and Orbital Rotation Symmetry. ChemCatChem, 2016, 8, 3762-3768. | 3.7 | 35 |
| 131 | Structure and catalytic processes of N-containing species on Rh(111) from first principles. Journal of Catalysis, 2005, 232, 179-185. | 6.2 | 33 |
| 132 | Zeolite NaY-supported gold complexes prepared from Au(CH3)2(C5H7O2): reactivity with carbon monoxide. Catalysis Letters, 2005, 101, 265-274. | 2.6 | 33 |
| 133 | Adsorption and Dissociation of CO on Body-Centered Cubic Transition Metals and Alloys: Effect of Coverage and Scaling Relations. Journal of Physical Chemistry C, 2009, 113, 11041-11049. | 3.1 | 33 |
| 134 | Chemistry of Oâ€•and Hâ€Œcontaining Species on the (001) Surface of Anatase TiO<sub>2</sub>: A DFT Study. ChemPhysChem, 2010, 11, 2375-2382. | 2.1 | 33 |
| 135 | Studying Fischerâ€“Tropsch catalysts using transmission electron microscopy and model systems of nanoparticles on planar supports. Catalysis Science and Technology, 2011, 1, 689. | 4.1 | 33 |
| 136 | Characterization of bimetallic FeRh/Sio2 catalysts by temperature programmed reduction, oxidation and MÃ¶ssbauer spectroscopy. Applied Catalysis, 1984, 10, 155-162. | 0.8 | 32 |
| 137 | Câ^'N Coupling in Reactions between Atomic Nitrogen and Ethylene on Rh(111). Journal of Physical Chemistry B, 1997, 101, 7901-7907. | 2.6 | 32 |
| 138 | Reactions between NO and CO on rhodium (111): an elementary step approach. Surface Science, 1999, 433-435, 69-73. | 1.9 | 32 |
| 139 | Synthesis and Reactivity of Dimethyl Gold Complexes Supported on MgO:â€‰ Characterization by Infrared and X-ray Absorption Spectroscopies. Langmuir, 2005, 21, 3675-3683. | 3.5 | 32 |
| 140 | Inhibit the formation of toxic methylphenolic by-products in photo-decomposition of formaldehydeâ€“toluene/xylene mixtures by Pd cocatalyst on TiO2. Applied Catalysis B: Environmental, 2021, 291, 120118. | 20.2 | 32 |
| 141 | Surface reactions of nitrogen oxide on rhodium (100), adsorption, dissociation and desorption. Surface Science, 1998, 402-404, 110-114. | 1.9 | 31 |
| 142 | Optimized CO<sub>2</sub> Capture of the Zeolitic Imidazolate Framework ZIF-8 Modified by Solvent-Assisted Ligand Exchange. ACS Omega, 2021, 6, 21850-21860. | 3.5 | 31 |
| 143 | Surface potential around potassium promoter atoms on Rh(111) measured with photoemission of adsorbed Xe, Kr, and Ar. Physical Review B, 1994, 49, 14599-14609. | 3.2 | 30 |
| 144 | Quantifying lateral adsorbate interactions by kinetic Monte-Carlo simulations and density-functional theory: NO dissociation on Rh(100). Physical Chemistry Chemical Physics, 2004, 6, 1830. | 2.8 | 30 |

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| 145 | Introducing open films of nanosized celluloseâ€"atomic force microscopy and quantification of morphology. Polymer, 2005, 46, 3307-3317. | 3.8 | 30 |
| 146 | Characterezation of FeRu/TiO2 and Fe/TiO2 catalysts after reduction and fischer-tropsch synthesis by MoËssbauer spectroscopy. Applied Catalysis, 1986, 27, 285-298. | 0.8 | 29 |
| 147 | Realistic surface science models of industrial catalysts. Applied Surface Science, 1999, 144-145, 366-374. | 6.1 | 29 |
| 148 | The CrOx/SiO2/Si(100) catalystâ€“ a surface science approach to supported olefin polymerization catalysis. Macromolecular Symposia, 2001, 173, 37-52. | 0.7 | 29 |
| 149 | The effect of temperature on ethylene polymerization over flat Phillips model catalysts. Journal of Catalysis, 2006, 240, 39-46. | 6.2 | 29 |
| 150 | In situ Moessbauer spectroscopy of bimetallic iron-rhodium (FeRh)/silica catalysts at 295 K. The Journal of Physical Chemistry, 1983, 87, 1292-1294. | 2.9 | 28 |
| 151 | Evaluation of take-off-angle-dependent XPS for determining the thickness of passivation layers on aluminium and silicon. Surface and Interface Analysis, 1992, 19, 161-164. | 1.8 | 28 |
| 152 | Mechanism of the conversion of ethene to ethylidyne on rhodium(111): evidence for a vinylic intermediate. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 3679. | 1.7 | 28 |
| 153 | The observation of nanometer-sized entities in sulphided Mo-based catalysts on various supports. Catalysis Letters, 2001, 74, 49-53. | 2.6 | 28 |
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