

Hans-Joachim Freund

List of Publications by Year in descending order

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814
papers

46,374
citations

1532

106
h-index

4988

167
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877
all docs

877
docs citations

877
times ranked

23172
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Catalysis and Surface Science. <i>Physics Today</i> , 1999, 52, 32-38. | 0.3 | 1,472 |
| 2 | Metal deposits on well-ordered oxide films. <i>Progress in Surface Science</i> , 1999, 61, 127-198. | 3.8 | 931 |
| 3 | Surface chemistry of carbon dioxide. <i>Surface Science Reports</i> , 1996, 25, 225-273. | 3.8 | 760 |
| 4 | CO Oxidation as a Prototypical Reaction for Heterogeneous Processes. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 10064-10094. | 7.2 | 639 |
| 5 | Formation of a well-ordered aluminium oxide overlayer by oxidation of NiAl(110). <i>Surface Science</i> , 1991, 259, 235-252. | 0.8 | 549 |
| 6 | Oxide ultra-thin films on metals: new materials for the design of supported metal catalysts. <i>Chemical Society Reviews</i> , 2008, 37, 2224. | 18.7 | 500 |
| 7 | Photochemistry on Metal Nanoparticles. <i>Chemical Reviews</i> , 2006, 106, 4301-4320. | 23.0 | 442 |
| 8 | Clusters and islands on oxides: from catalysis via electronics and magnetism to optics. <i>Surface Science</i> , 2002, 500, 271-299. | 0.8 | 417 |
| 9 | Oxide surfaces. <i>Reports on Progress in Physics</i> , 1996, 59, 283-347. | 8.1 | 378 |
| 10 | Nanoparticles for Heterogeneous Catalysis: New Mechanistic Insights. <i>Accounts of Chemical Research</i> , 2013, 46, 1673-1681. | 7.6 | 347 |
| 11 | Molecular beam experiments on model catalysts. <i>Surface Science Reports</i> , 2005, 57, 157-298. | 3.8 | 327 |
| 12 | Structure and defects of an ordered alumina film on NiAl(110). <i>Surface Science</i> , 1994, 318, 61-73. | 0.8 | 311 |
| 13 | Control of the Charge State of Metal Atoms on Thin MgO Films. <i>Physical Review Letters</i> , 2007, 98, 096107. | 2.9 | 310 |
| 14 | Palladium Nanocrystals on Al ₂ O ₃ : Structure and Adhesion Energy. <i>Physical Review Letters</i> , 1999, 83, 4120-4123. | 2.9 | 302 |
| 15 | Do Quantum Size Effects Control CO Adsorption on Gold Nanoparticles?. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 118-121. | 7.2 | 287 |
| 16 | Hydrogenation on Metal Surfaces: Why are Nanoparticles More Active than Single Crystals?. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 5240-5243. | 7.2 | 285 |
| 17 | The application of infrared spectroscopy to probe the surface morphology of alumina-supported palladium catalysts. <i>Journal of Chemical Physics</i> , 2005, 123, 174706. | 1.2 | 276 |
| 18 | Electron Transfer at Oxide Surfaces. The MgO Paradigm: from Defects to Ultrathin Films. <i>Chemical Reviews</i> , 2013, 113, 4035-4072. | 23.0 | 265 |

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|----|---|-----|-----------|
| 19 | Adsorption of Gases on Complex Solid Surfaces. <i>Angewandte Chemie International Edition in English</i> , 1997, 36, 452-475. | 4.4 | 264 |
| 20 | CO Adsorption on Pd Nanoparticles: A Density Functional and Vibrational Spectroscopy Studies. <i>Journal of Physical Chemistry B</i> , 2003, 107, 255-264. | 1.2 | 262 |
| 21 | Vibrational spectra of alumina- and silica-supported vanadia revisited: An experimental and theoretical model catalyst study. <i>Journal of Catalysis</i> , 2004, 226, 88-100. | 3.1 | 258 |
| 22 | Molecular adsorption on oxide surfaces: Electronic structure and orientation of NO on NiO(100)/Ni(100) and on NiO(100) as determined from electron spectroscopies and ab initio cluster calculations. <i>Physical Review B</i> , 1991, 43, 1969-1986. | 1.1 | 247 |
| 23 | Acetylene and Ethylene Hydrogenation on Alumina Supported Pd-Ag Model Catalysts. <i>Catalysis Letters</i> , 2006, 108, 159-164. | 1.4 | 241 |
| 24 | σ-Bonded N ₂ on Fe(111): The Precursor for Dissociation. <i>Physical Review Letters</i> , 1984, 53, 850-853. | 2.9 | 231 |
| 25 | Hydroxyl groups on oxide surfaces: NiO(100), NiO(111) and Cr ₂ O ₃ (111). <i>Chemical Physics</i> , 1993, 177, 533-546. | 0.9 | 227 |
| 26 | The influence of defects on the Ni 2p and O 1s XPS of NiO. <i>Journal of Physics Condensed Matter</i> , 1992, 4, 7973-7978. | 0.7 | 223 |
| 27 | Monolayer iron oxide film on platinum promotes low temperature CO oxidation. <i>Journal of Catalysis</i> , 2009, 266, 359-368. | 3.1 | 216 |
| 28 | On the bonding and reactivity of CO ₂ on metal surfaces. <i>Surface Science</i> , 1986, 172, 1-30. | 0.8 | 215 |
| 29 | Crossover from Three-Dimensional to Two-Dimensional Geometries of Au Nanostructures on Thin MgO(001) Films: A Confirmation of Theoretical Predictions. <i>Physical Review Letters</i> , 2007, 98, 206103. | 2.9 | 211 |
| 30 | The Atomic Structure of a Metal-Supported Vitreous Thin Silica Film. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 404-407. | 7.2 | 207 |
| 31 | Atomic Structure of a Thin Silica Film on a Mo(112) Substrate: A Two-Dimensional Network of SiO ₄ Tetrahedra. <i>Physical Review Letters</i> , 2005, 95, 076103. | 2.9 | 201 |
| 32 | Interaction of Gold with Cerium Oxide Supports: CeO ₂ (111) Thin Films vs CeO _x Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2009, 113, 6042-6049. | 1.5 | 198 |
| 33 | Growth and Structure of Crystalline Silica Sheet on Ru(0001). <i>Physical Review Letters</i> , 2010, 105, 146104. | 2.9 | 198 |
| 34 | Gold Supported on Thin Oxide Films: From Single Atoms to Nanoparticles. <i>Accounts of Chemical Research</i> , 2008, 41, 949-956. | 7.6 | 196 |
| 35 | The Interplay between Structure and CO Oxidation Catalysis on Metal-Supported Ultrathin Oxide Films. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4418-4421. | 7.2 | 191 |
| 36 | Role of Ceria in Oxidative Dehydrogenation on Supported Vanadia Catalysts. <i>Journal of the American Chemical Society</i> , 2010, 132, 2345-2349. | 6.6 | 191 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 37 | Well-Ordered Transition Metal Oxide Layers in Model Catalysis – A Series of Case Studies. <i>Chemical Reviews</i> , 2013, 113, 3986-4034. | 23.0 | 187 |
| 38 | Photon Emission Spectroscopy of Individual Oxide-Supported Silver Clusters in a Scanning Tunneling Microscope. <i>Physical Review Letters</i> , 2000, 84, 3994-3997. | 2.9 | 186 |
| 39 | Geometric Characterization of a Singly Charged Oxygen Vacancy on a Single-Crystalline MgO(001) Film by Electron Paramagnetic Resonance Spectroscopy. <i>Physical Review Letters</i> , 2005, 94, 186101. | 2.9 | 181 |
| 40 | Cluster Core-Level Binding-Energy Shifts: The Role of Lattice Strain. <i>Physical Review Letters</i> , 2004, 93, 026805. | 2.9 | 172 |
| 41 | Catalytic Activity and Poisoning of Specific Sites on Supported Metal Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 2532-2535. | 7.2 | 170 |
| 42 | Size and Support Effects for CO Adsorption on Gold Model Catalysts. <i>Catalysis Letters</i> , 2003, 86, 211-219. | 1.4 | 166 |
| 43 | Metal-supported ultrathin oxide film systems as designable catalysts and catalyst supports. <i>Surface Science</i> , 2007, 601, 1438-1442. | 0.8 | 165 |
| 44 | Influence of Carbon Deposition on the Hydrogen Distribution in Pd Nanoparticles and Their Reactivity in Olefin Hydrogenation. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 9289-9293. | 7.2 | 165 |
| 45 | Hydroxyl driven reconstruction of the polar NiO(111) surface. <i>Surface Science</i> , 1994, 315, L977-L982. | 0.8 | 163 |
| 46 | Infrared spectroscopic investigation of CO adsorbed on Pd aggregates deposited on an alumina model support. <i>Surface Science</i> , 1998, 399, 190-198. | 0.8 | 161 |
| 47 | The surface structure of Fe ₃ O ₄ (111) films as studied by CO adsorption. <i>Surface Science</i> , 2004, 572, 103-114. | 0.8 | 161 |
| 48 | CO adsorption on oxide supported gold: from small clusters to monolayer islands and three-dimensional nanoparticles. <i>Surface Science</i> , 2004, 552, 27-34. | 0.8 | 159 |
| 49 | Morphology and defect structure of the CeO ₂ (111) films grown on Ru(0001) as studied by scanning tunneling microscopy. <i>Surface Science</i> , 2006, 600, 5004-5010. | 0.8 | 159 |
| 50 | Introductory Lecture: Oxide surfaces. <i>Faraday Discussions</i> , 1999, 114, 1-31. | 1.6 | 158 |
| 51 | Bridging the Pressure and Materials Gaps: High Pressure Sum Frequency Generation Study on Supported Pd Nanoparticles. <i>Physical Review Letters</i> , 2000, 85, 776-779. | 2.9 | 158 |
| 52 | Electron Localization in Defective Ceria Films: A Study with Scanning-Tunneling Microscopy and Density-Functional Theory. <i>Physical Review Letters</i> , 2011, 106, 246801. | 2.9 | 158 |
| 53 | Model Studies in Heterogeneous Catalysis. <i>Chemistry - A European Journal</i> , 2010, 16, 9384-9397. | 1.7 | 156 |
| 54 | The adsorption of N ₂ : Chemisorbed on Ni(110) and physisorbed on Pd(111). <i>Surface Science</i> , 1982, 118, 465-495. | 0.8 | 155 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 55 | Preparation and characterization of model catalysts: from ultrahigh vacuum to in situ conditions at the atomic dimension. <i>Journal of Catalysis</i> , 2003, 216, 223-235. | 3.1 | 155 |
| 56 | Size Dependence of the Adsorption Energy of CO on Metal Nanoparticles: A DFT Search for the Minimum Value. <i>Nano Letters</i> , 2012, 12, 2134-2139. | 4.5 | 155 |
| 57 | Controlling the charge state of supported nanoparticles in catalysis: lessons from model systems. <i>Chemical Society Reviews</i> , 2018, 47, 8474-8502. | 18.7 | 155 |
| 58 | Interaction of Gold Clusters with Color Centers on MgO(001) Films. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 2630-2632. | 7.2 | 154 |
| 59 | A Case of Strong Metal-Support Interactions: Combining Advanced Microscopy and Model Systems to Elucidate the Atomic Structure of Interfaces. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 5998-6001. | 7.2 | 154 |
| 60 | Adsorption and reaction of CO ₂ and CO ₂ /O CO-adsorption on Ni(110): Angle resolved photoemission (ARUPS) and electron energy loss (HREELS) studies. <i>Surface Science</i> , 1987, 179, 59-89. | 0.8 | 153 |
| 61 | Vibrational Sum Frequency Spectroscopy on Pd(111) and Supported Pd Nanoparticles: CO Adsorption from Ultrahigh Vacuum to Atmospheric Pressure. <i>Journal of Physical Chemistry B</i> , 2002, 106, 356-367. | 1.2 | 153 |
| 62 | Structure Sensitivity of CO Dissociation on Rh Surfaces. <i>Catalysis Letters</i> , 2002, 81, 153-156. | 1.4 | 153 |
| 63 | SMART: a planned ultrahigh-resolution spectromicroscope for BESSY II. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1997, 84, 231-250. | 0.8 | 149 |
| 64 | IR investigations of CO ₂ adsorption on chromia surfaces: Cr ₂ O ₃ (0001)/Cr(110) versus polycrystalline γ -Cr ₂ O ₃ . <i>Surface Science</i> , 1999, 421, 176-190. | 0.8 | 148 |
| 65 | Identification of Color Centers on MgO(001) Thin Films with Scanning Tunneling Microscopy. <i>Journal of Physical Chemistry B</i> , 2006, 110, 46-49. | 1.2 | 143 |
| 66 | Chemisorption of CO on Co(0001). Structure and electronic properties. <i>Physical Review B</i> , 1983, 27, 7117-7135. | 1.1 | 140 |
| 67 | Strong relaxations at the Cr ₂ O ₃ (0001) surface as determined via low-energy electron diffraction and molecular dynamics simulations. <i>Surface Science</i> , 1997, 372, L291-L297. | 0.8 | 140 |
| 68 | Size-Dependent Oxidation Mechanism of Supported Pd Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 3693-3697. | 7.2 | 140 |
| 69 | Encapsulation of Pt Nanoparticles as a Result of Strong Metal-Support Interaction with Fe ₃ O ₄ (111). <i>Journal of Physical Chemistry C</i> , 2008, 112, 10209-10213. | 1.5 | 138 |
| 70 | Resolving the Atomic Structure of Vanadia Monolayer Catalysts: Monomers, Trimers, and Oligomers on Ceria. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 8006-8009. | 7.2 | 138 |
| 71 | Partial oxidation of ethanol on vanadia catalysts on supporting oxides with different redox properties compared to propane. <i>Journal of Catalysis</i> , 2012, 296, 120-131. | 3.1 | 138 |
| 72 | Alkene chemistry on the palladium surface: nanoparticles vs single crystals. <i>Journal of Catalysis</i> , 2004, 223, 444-453. | 3.1 | 136 |

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|----|---|-----|-----------|
| 73 | Structure-Reactivity Relationships on Supported Metal Model Catalysts: Adsorption and Reaction of Ethene and Hydrogen on Pd/Al ₂ O ₃ /NiAl(110). Journal of Catalysis, 2001, 200, 330-339. | 3.1 | 135 |
| 74 | Polar surfaces of oxides: reactivity and reconstruction. Surface Science, 1995, 337, 268-277. | 0.8 | 134 |
| 75 | High-Pressure Carbon Monoxide Adsorption on Pt(111) Revisited: A Sum Frequency Generation Study. Journal of Physical Chemistry B, 2001, 105, 3797-3802. | 1.2 | 132 |
| 76 | Adsorption and reaction on oxide surfaces: NO, NO ₂ on Cr ₂ O ₃ (111)/Cr(110). Surface Science, 1991, 258, 23-34. | 0.8 | 131 |
| 77 | An MNDO and CNDO / S(S + DES CI) study on the structural and electronic properties of a model squaraine dye and related cyanine. Chemical Physics, 1986, 107, 159-174. | 0.9 | 130 |
| 78 | Models in Catalysis. Catalysis Letters, 2015, 145, 109-125. | 1.4 | 130 |
| 79 | The structure of thin NiO(100) films grown on Ni(100) as determined by low-energy-electron diffraction and scanning tunneling microscopy. Surface Science, 1991, 253, 116-128. | 0.8 | 129 |
| 80 | Title is missing!. Topics in Catalysis, 2001, 15, 201-209. | 1.3 | 129 |
| 81 | Self-Organization of Gold Atoms on a Polar FeO(111) Surface. Physical Review Letters, 2005, 95, 066101. | 2.9 | 129 |
| 82 | Interplay between structural, magnetic, and electronic properties in a $\text{FeO}/\text{Pt}(111)$ film. Physical Review B, 2007, 76, . | 1.1 | 129 |
| 83 | Quantum Well States in Two-Dimensional Gold Clusters on MgO Thin Films. Physical Review Letters, 2009, 102, 206801. | 2.9 | 128 |
| 84 | Atmospheric pressure studies of selective 1,3-butadiene hydrogenation on well-defined Pd/Al ₂ O ₃ /NiAl(110) model catalysts: Effect of Pd particle size. Journal of Catalysis, 2006, 240, 58-65. | 3.1 | 127 |
| 85 | EPITAXIAL GROWTH OF SiO ₂ ON Mo(112). Surface Review and Letters, 2000, 07, 7-14. | 0.5 | 124 |
| 86 | Oxygen-Deficient Line Defects in an Ultrathin Aluminum Oxide Film. Physical Review Letters, 2006, 97, 046101. | 2.9 | 123 |
| 87 | Explanation of the satellite structure observed in the photoemission spectra of coordinated CO. Physical Review B, 1981, 23, 4859-4878. | 1.1 | 121 |
| 88 | On the Promoting Role of Ag in Selective Hydrogenation Reactions over Pd-Ag Bimetallic Catalysts: A Theoretical Study. Journal of Physical Chemistry C, 2007, 111, 6852-6856. | 1.5 | 121 |
| 89 | Binding of Single Gold Atoms on Thin MgO(001) Films. Physical Review Letters, 2006, 96, 146804. | 2.9 | 120 |
| 90 | Alumina supported model Pd-Ag catalysts: A combined STM, XPS, TPD and IRAS study. Surface Science, 2006, 600, 1849-1853. | 0.8 | 120 |

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| 91 | Toward an Understanding of Selective Alkyne Hydrogenation on Ceria: On the Impact of O Vacancies on H ₂ Interaction with CeO ₂ (111). Journal of the American Chemical Society, 2017, 139, 17608-17616. | 6.6 | 120 |
| 92 | Interaction of rhodium with hydroxylated alumina model substrates. Surface Science, 1997, 384, 106-119. | 0.8 | 119 |
| 93 | Adsorption and Reaction on Oxide Surfaces: CO and CO ₂ on Cr ₂ O ₃ (111). Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1992, 96, 15-27. | 0.9 | 118 |
| 94 | TDS study of the bonding of CO and NO to vacuum-cleaved NiO(100). Surface Science, 1999, 423, 90-98. | 0.8 | 118 |
| 95 | Oxygen Storage at the Metal/Oxide Interface of Catalyst Nanoparticles. Angewandte Chemie - International Edition, 2005, 44, 7601-7605. | 7.2 | 115 |
| 96 | V ₂ O ₃ (0) on Au(0) and W(0): growth, termination and electronic structure. Surface Science, 2003, 539, 99-112. | 0.8 | 114 |
| 97 | Surface potential of a polar oxide film: FeO on Pt(111). Physical Review B, 2005, 71, . | 1.1 | 114 |
| 98 | Atomic Structure of Antiphase Domain Boundaries of a Thin Al ₂ O ₃ Film on NiAl(110). Physical Review Letters, 2003, 91, 256101. | 2.9 | 113 |
| 99 | Surface Metal-Insulator Transition on a Vanadium Pentoxide (001) Single Crystal. Physical Review Letters, 2007, 99, 226103. | 2.9 | 113 |
| 100 | Charge-Mediated Adsorption Behavior of CO on MgO-Supported Au Clusters. Journal of the American Chemical Society, 2010, 132, 7745-7749. | 6.6 | 112 |
| 101 | Oxidation of Reduced Ceria by Incorporation of Hydrogen. Angewandte Chemie - International Edition, 2019, 58, 14686-14693. | 7.2 | 112 |
| 102 | Interaction of oxygen with palladium deposited on a thin alumina film. Surface Science, 2002, 501, 270-281. | 0.8 | 111 |
| 103 | Surface Reactivity of Pd Nanoparticles Supported on Polycrystalline Substrates As Compared to Thin Film Model Catalysts: An Infrared Study of CO Adsorption. Journal of Physical Chemistry B, 2004, 108, 3603-3613. | 1.2 | 110 |
| 104 | Ultrathin Oxide Films on Metal Supports: Structure-Reactivity Relations. Annual Review of Physical Chemistry, 2012, 63, 619-633. | 4.8 | 110 |
| 105 | In Situ Studies of Methanol Decomposition and Oxidation on Pd(111) by PM-IRAS and XPS Spectroscopy. Journal of Physical Chemistry B, 2005, 109, 17791-17794. | 1.2 | 109 |
| 106 | Charging of Metal Adatoms on Ultrathin Oxide Films: Au and Pd on FeO and Pt on Ni(111) . Physical Review Letters, 2007, 99, 076101. | 2.9 | 109 |
| 107 | Photodesorption of NO from Ni(100)-O. Physical Review Letters, 1988, 60, 1518-1521. | 2.9 | 107 |
| 108 | The structure of Pt-aggregates on a supported thin aluminum oxide film in comparison with unsupported alumina: a transmission electron microscopy study. Surface Science, 1997, 391, 27-36. | 0.8 | 106 |

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|-----|--|-----|-----------|
| 109 | Gold supported on well-ordered ceria films: nucleation, growth and morphology in CO oxidation reaction. <i>Catalysis Letters</i> , 2007, 114, 8-16. | 1.4 | 106 |
| 110 | Thin silica films on Ru(0001): monolayer, bilayer and three-dimensional networks of [SiO ₄] tetrahedra. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 11344. | 1.3 | 106 |
| 111 | Sum frequency generation vibrational spectroscopy at solid-gas interfaces: CO adsorption on Pd model catalysts at ambient pressure. <i>Surface Science</i> , 2002, 502-503, 109-122. | 0.8 | 105 |
| 112 | Electronic and geometric structure of CO on Ni(110): Experiment and theory. <i>Surface Science</i> , 1986, 173, 194-214. | 0.8 | 104 |
| 113 | Electronic surface state of NiO (100). <i>Chemical Physics Letters</i> , 1993, 210, 10-14. | 1.2 | 104 |
| 114 | Thermodesorption of CO and NO from Vacuum-Cleaved NiO(100) and MgO(100). <i>Physica Status Solidi A</i> , 1999, 173, 93-100. | 1.7 | 104 |
| 115 | Formation of a faceted MoO ₂ epilayer on Mo(112) studied by XPS, UPS and STM. <i>Surface Science</i> , 2004, 552, 85-97. | 0.8 | 103 |
| 116 | Temperature-Dependent Morphology, Magnetic and Optical Properties of Li-Doped MgO. <i>ChemCatChem</i> , 2010, 2, 854-862. | 1.8 | 102 |
| 117 | Unoccupied electron band structure of Na overlayers on Al(111). <i>Physical Review B</i> , 1987, 36, 1276-1279. | 1.1 | 101 |
| 118 | When the Reporter Induces the Effect: Unusual IR spectra of CO on Au ₁ /MgO(001)/Mo(001). <i>Angewandte Chemie - International Edition</i> , 2006, 45, 2633-2635. | 7.2 | 101 |
| 119 | Counting Electrons Transferred through a Thin Alumina Film into Au Chains. <i>Physical Review Letters</i> , 2008, 100, 096802. | 2.9 | 101 |
| 120 | Activation of Oxygen on MgO: O ₂ ^{•-} Radical Ion Formation on Thin, Metal-Supported MgO(001) Films. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 2635-2638. | 7.2 | 101 |
| 121 | CO ₂ adsorption and reaction on Fe(111): An angle resolved photoemission (ARUPS) study. <i>Surface Science</i> , 1987, 180, 550-564. | 0.8 | 100 |
| 122 | Adsorption and reaction of methanol on supported palladium catalysts: microscopic-level studies from ultrahigh vacuum to ambient pressure conditions. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 3541-3558. | 1.3 | 100 |
| 123 | Tailoring the Shape of Metal Particles by Doping the Oxide Support. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 11525-11527. | 7.2 | 99 |
| 124 | High-Pressure Studies of CO Adsorption on Pd(111) by X-ray Photoelectron Spectroscopy and Sum-Frequency Generation. <i>Journal of Physical Chemistry B</i> , 2003, 107, 3522-3527. | 1.2 | 96 |
| 125 | Modeling Zeolites with Metal-Supported Two-Dimensional Aluminosilicate Films. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 6005-6008. | 7.2 | 96 |
| 126 | Preparation and Characterization of a Model Bimetallic Catalyst: Co-Pd Nanoparticles Supported on Al ₂ O ₃ . <i>Angewandte Chemie - International Edition</i> , 2002, 41, 4073-4076. | 7.2 | 95 |

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|-----|--|------|-----------|
| 127 | Measuring the Charge State of Point Defects on MgO/Ag(001). Journal of the American Chemical Society, 2009, 131, 17544-17545. | 6.6 | 95 |
| 128 | XPEEM WITH ENERGY-FILTERING: ADVANTAGES AND FIRST RESULTS FROM THE SMART PROJECT. Surface Review and Letters, 2002, 09, 223-232. | 0.5 | 94 |
| 129 | Study of CO adsorption on crystalline-silica-supported palladium particles. Surface Science, 2002, 498, L71-L77. | 0.8 | 94 |
| 130 | Isomerization and Hydrogenation of <i>cis</i> -2-Butene on Pd Model Catalyst. Journal of Physical Chemistry C, 2008, 112, 11408-11420. | 1.5 | 94 |
| 131 | Oxidation of Au by Surface OH: Nucleation and Electronic Structure of Gold on Hydroxylated MgO(001). Journal of the American Chemical Society, 2011, 133, 10668-10676. | 6.6 | 94 |
| 132 | A molecular beam/surface spectroscopy apparatus for the study of reactions on complex model catalysts. Review of Scientific Instruments, 2000, 71, 4395. | 0.6 | 93 |
| 133 | Methanol Dehydrogenation and Formation of Carbonaceous Overlayers on Pd(111) Studied by High-Pressure SFG and XPS Spectroscopy. Journal of Physical Chemistry B, 2004, 108, 12955-12961. | 1.2 | 93 |
| 134 | Ferryl (Fe ^{IV} O) Termination of the Hematite (Fe ₂ O ₃ (0001)) Surface. Physical Review Letters, 2005, 94, 166101. | 2.9 | 92 |
| 135 | Crystalline-Vitreous Interface in Two Dimensional Silica. Physical Review Letters, 2012, 109, 106101. | 2.9 | 92 |
| 136 | Construction of 2D Atomic Crystals on Transition Metal Surfaces: Graphene, Silicene, and Hafnene. Small, 2014, 10, 2215-2225. | 5.2 | 91 |
| 137 | Nature of active sites in Ni ₂ P hydrotreating catalysts as probed by iron substitution. Applied Catalysis B: Environmental, 2015, 164, 204-216. | 10.8 | 91 |
| 138 | Oxygen-Induced Transformations of an FeO(111) Film on Pt(111): A Combined DFT and STM Study. Journal of Physical Chemistry C, 2010, 114, 21504-21509. | 1.5 | 90 |
| 139 | Donor Characteristics of Transition-Metal-Doped Oxides: Cr-Doped MgO versus Mo-Doped CaO. Journal of the American Chemical Society, 2012, 134, 11380-11383. | 6.6 | 90 |
| 140 | Adsorption and reaction of CO ₂ on Ni{110}: X-ray photoemission, near-edge X-ray absorption fine-structure and diffuse leed studies. Surface Science, 1988, 206, 1-19. | 0.8 | 89 |
| 141 | SMART: An Aberration-Corrected XPEEM/LEEM with Energy Filter. Surface Review and Letters, 1998, 05, 1249-1256. | 0.5 | 88 |
| 142 | Structures of the Ordered Water Monolayer on MgO(001). Journal of Physical Chemistry C, 2011, 115, 6764-6774. | 1.5 | 88 |
| 143 | The CO oxidation kinetics on supported Pd model catalysts: A molecular beam/in situ time-resolved infrared reflection absorption spectroscopy study. Journal of Chemical Physics, 2001, 114, 4669. | 1.2 | 87 |
| 144 | The adsorption of N ₂ on Fe(111): Angle resolved photoemission and theoretical model studies. Surface Science, 1987, 185, 187-202. | 0.8 | 86 |

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|-----|---|------|-----------|
| 145 | Model Catalyst Studies on Vanadia Particles Deposited onto a Thin-Film Alumina Support. 1. Structural Characterization. Journal of Physical Chemistry B, 2002, 106, 8756-8761. | 1.2 | 86 |
| 146 | The interaction of oxygen with alumina-supported palladium particles. Catalysis Letters, 2001, 71, 5-13. | 1.4 | 85 |
| 147 | Title is missing!. Topics in Catalysis, 2001, 15, 19-26. | 1.3 | 85 |
| 148 | Morphological and electronic properties of ultrathin crystalline silica epilayers on a Mo(112) substrate. Physical Review B, 2002, 66, . | 1.1 | 85 |
| 149 | Surface-Bonded Precursor Determines Particle Size Effects for Alkene Hydrogenation on Palladium. Angewandte Chemie - International Edition, 2005, 44, 629-631. | 7.2 | 85 |
| 150 | Tuning the electronic structure of ultrathin crystalline silica films on Ru(0001). Physical Review B, 2012, 85, . | 1.1 | 85 |
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