# Herbert Over

List of Publications by Year
in descending order



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|---|---|---|---|
| 198 papers | 10,760 citations | 24978 57 h-index | 38300 95 g-index |
| 204 all docs | 204 docs citations | 204 times ranked | 7092 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Atomic-Scale Structure and Catalytic Reactivity of the RuO2(110) Surface. Science, 2000, 287, 1474-1476. | 6.0 | 829 |
| 2 | Surface Chemistry of Ruthenium Dioxide in Heterogeneous Catalysis and Electrocatalysis: From Fundamental to Applied Research. Chemical Reviews, 2012, 112, 3356-3426. | 23.0 | 580 |
| 3 | Automated determination of complex surface structures by LEED. Surface Science Reports, 1993, 19, 191-229. | 3.8 | 254 |
| 4 | Structure and Stability of a High-Coverage(1Ã—1)Oxygen Phase on Ru(0001). Physical Review Letters, 1996, 77, 3371-3374. | 2.9 | 220 |
| 5 | Self-Assembly of a Hexagonal Boron Nitride Nanomesh on Ru(0001). Langmuir, 2007, 23, 2928-2931. | 1.6 | 216 |
| 6 | Characterization of Various Oxygen Species on an Oxide Surface:â€‰ RuO2(110). Journal of Physical Chemistry B, 2001, 105, 3752-3758. | 1.2 | 209 |
| 7 | Boron Nitride Nanomesh: Functionality from a Corrugated Monolayer. Angewandte Chemie - International Edition, 2007, 46, 5115-5119. | 7.2 | 209 |
| 8 | Catalytic CO oxidation over rutheniumâ€“â€“bridging the pressure gap. Progress in Surface Science, 2003, 72, 3-17. | 3.8 | 199 |
| 9 | Controlling Selectivity in the Chlorine Evolution Reaction over RuO<sub>2</sub>â€Based Catalysts. Angewandte Chemie - International Edition, 2014, 53, 11032-11035. | 7.2 | 182 |
| 10 | SURFACE CHEMISTRY: Oxidation of Metal Surfaces. Science, 2002, 297, 2003-2005. | 6.0 | 169 |
| 11 | Coverage dependence of adsorption-site geometry in the Cs/Ru(0001) system: A low-energy electron-diffraction analysis. Physical Review B, 1992, 45, 8638-8649. | 1.1 | 167 |
| 12 | Identification of stable and metastable adsorption sites of K adsorbed on Al(111). Physical Review Letters, 1992, 69, 1532-1535. | 2.9 | 161 |
| 13 | CO Oxidation Reaction over Oxygen-Rich Ru(0001) Surfaces. Journal of Physical Chemistry B, 1997, 101, 11185-11191. | 1.2 | 156 |
| 14 | Kinetics of Electrocatalytic Reactions from First-Principles: A Critical Comparison with the Ab Initio Thermodynamics Approach. Accounts of Chemical Research, 2017, 50, 1240-1247. | 7.6 | 133 |
| 15 | Oxidation Reactions over RuO2: A Comparative Study of the Reactivity of the (110) Single Crystal and Polycrystalline Surfaces. Journal of Catalysis, 2001, 202, 296-307. | 3.1 | 129 |
| 16 | A Universal Approach To Determine the Free Energy Diagram of an Electrocatalytic Reaction. ACS Catalysis, 2018, 8, 1864-1879. | 5.5 | 128 |
| 17 | Fundamental Studies of Planar Single-Crystalline Oxide Model Electrodes (RuO<sub>2</sub>,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 | 5.5 | 128 |
| 18 | Anisotropic atomic motions in structural analysis by low energy electron diffraction. Physical Review Letters, 1993, 70, 315-318. | 2.9 | 125 |

| # | ARTICLE | IF | CITATIONS |
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| 19 | Stable Deacon Process for HCl Oxidation over RuO<sub>2</sub>. Angewandte Chemie - International Edition, 2008, 47, 2131-2134. | 7.2 | 123 |
| 20 | Full Kinetics from First Principles of the Chlorine Evolution Reaction over a RuO<sub>2</sub>(110) Model Electrode. Angewandte Chemie - International Edition, 2016, 55, 7501-7504. | 7.2 | 120 |
| 21 | The atomic geometry of the O and CO + O phases on Rh(111). Surface Science, 1997, 375, 91-106. | 0.8 | 118 |
| 22 | Beyond the Rate-Determining Step in the Oxygen Evolution Reaction over a Single-Crystalline IrO<sub>2</sub>(110) Model Electrode: Kinetic Scaling Relations. ACS Catalysis, 2019, 9, 6755-6765. | 5.5 | 117 |
| 23 | Temperature-Dependent Kinetic Studies of the Chlorine Evolution Reaction over RuO<sub>2</sub>(110) Model Electrodes. ACS Catalysis, 2017, 7, 2403-2411. | 5.5 | 111 |
| 24 | Crystallographic study of interaction between adspecies on metal surfaces. Progress in Surface Science, 1998, 58, 249-376. | 3.8 | 110 |
| 25 | Shape-Controlled CeO<sub>2</sub> Nanoparticles: Stability and Activity in the Catalyzed HCl Oxidation Reaction. ACS Catalysis, 2017, 7, 6453-6463. | 5.5 | 109 |
| 26 | Defect structures on epitaxialFe3O4(111)films. Physical Review B, 1999, 60, 11062-11069. | 1.1 | 108 |
| 27 | New Bonding Configuration on Si(111) and Ge(111) Surfaces Induced by the Adsorption of Alkali Metals. Physical Review Letters, 1998, 80, 3980-3983. | 2.9 | 104 |
| 28 | Identification of RuO2 as the active phase in CO oxidation on oxygen-rich ruthenium surfaces. Topics in Catalysis, 2000, 14, 95-100. | 1.3 | 103 |
| 29 | On the Nature of the Active State of Supported Ruthenium Catalysts Used for the Oxidation of Carbon Monoxide:Â Steady-State and Transient Kinetics Combined with in Situ Infrared Spectroscopyâ€. Journal of Physical Chemistry B, 2004, 108, 14634-14642. | 1.2 | 97 |
| 30 | Chlorine Evolution Reaction on RuO2(110): Ab initio Atomistic Thermodynamics Study - Pourbaix Diagrams. Electrochimica Acta, 2014, 120, 460-466. | 2.6 | 95 |
| 31 | Surface atomic geometry of Si(001)-(2Ã—1): A low-energy electron-diffraction structure analysis. Physical Review B, 1997, 55, 4731-4736. | 1.1 | 91 |
| 32 | Understanding the Structural Deactivation of Ruthenium Catalysts on an Atomic Scale under both Oxidizing and Reducing Conditions. Angewandte Chemie - International Edition, 2005, 44, 917-920. | 7.2 | 91 |
| 33 | Ru(0001) Model Catalyst under Oxidizing and Reducing Reaction Conditions:Â In-Situ High-Pressure Surface X-ray Diffraction Study. Journal of Physical Chemistry B, 2005, 109, 21825-21830. | 1.2 | 89 |
| 34 | Complex Interaction of Hydrogen with the RuO2(110) Surface. Journal of Physical Chemistry C, 2007, 111, 5363-5373. | 1.5 | 88 |
| 35 | Electrochemical versus Gas-Phase Oxidation of Ru Single-Crystal Surfaces. Journal of Physical Chemistry B, 2000, 104, 6040-6048. | 1.2 | 83 |
| 36 | The adsorption of atomic nitrogen on Ru(0001): geometry and energetics. Chemical Physics Letters, 1997, 264, 680-686. | 1.2 | 77 |

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| 37 | Oxidation of Ir(111): From Oâˆ'Irâˆ'O Trilayer to Bulk Oxide Formation. Journal of Physical Chemistry C, 2008, 112, 11946-11953. | 1.5 | 77 |
| 38 | Bonding Mechanism and Atomic Geometry of an Ordered Hydroxyl Overlayer on Pt(111). Journal of the American Chemical Society, 2001, 123, 7347-7351. | 6.6 | 76 |
| 39 | LEED structural analysis of Al(111)-K-(âˆš3 Ã— âˆš3 )R30Â°: Identification of stable and metastable adsorption sites. Physical Review B, 1994, 49, 4959-4972. | 1.1 | 74 |
| 40 | The atomic geometry of oxygen-rich Ru(0001) surfaces: coexistence of (1Ã—1)O and RuO2(110) domains. Surface Science, 2000, 465, 1-8. | 0.8 | 74 |
| 41 | Epitaxial Growth of RuO2(100) on Ru(101Ì„0):â€‰ Surface Structure and Other Properties. Journal of Physical Chemistry B, 2001, 105, 2205-2211. | 1.2 | 72 |
| 42 | On the origin of the Ru-3d5/2 satellite feature from RuO2(). Surface Science, 2002, 504, L196-L200. | 0.8 | 72 |
| 43 | Ruthenium dioxide, a fascinating material for atomic scale surface chemistry. Applied Physics A: Materials Science and Processing, 2002, 75, 37-44. | 1.1 | 71 |
| 44 | Optimization methods and their use in low-energy electron-diffraction calculations. Physical Review B, 1992, 46, 15438-15446. | 1.1 | 69 |
| 45 | Hydrogen Transfer Reaction on the Surface of an Oxide Catalyst. Journal of the American Chemical Society, 2005, 127, 3236-3237. | 6.6 | 69 |
| 46 | What Makes a Good Catalyst for the Deacon Process?. ACS Catalysis, 2013, 3, 1034-1046. | 5.5 | 69 |
| 47 | Oxygen adsorption on the Ru(101Â¯0) surface: Anomalous coverage dependence. Physical Review B, 1998, 57, 15487-15495. | 1.1 | 68 |
| 48 | Reaction Mechanism of the Oxidation of HCl over RuO<sub>2</sub>(110). Journal of Physical Chemistry C, 2008, 112, 9966-9969. | 1.5 | 68 |
| 49 | Experimental and simulated STM images of stoichiometric and partially reduced RuO2() surfaces including adsorbates. Surface Science, 2002, 515, 143-156. | 0.8 | 67 |
| 50 | Visualization of Atomic Processes on Ruthenium Dioxide using Scanning Tunneling Microscopy. ChemPhysChem, 2004, 5, 167-174. | 1.0 | 67 |
| 51 | Atomic-Scale Understanding of the HCl Oxidation Over RuO<sub>2</sub>, A Novel Deacon Process. Journal of Physical Chemistry C, 2012, 116, 6779-6792. | 1.5 | 64 |
| 52 | Ligand Effects and Their Impact on Electrocatalytic Processes Exemplified with the Oxygen Evolution Reaction (OER) on RuO<sub>2</sub>(110). ChemElectroChem, 2015, 2, 707-713. | 1.7 | 64 |
| 53 | Spectroscopic characterization of catalytically active surface sites of a metallic oxide. Chemical Physics Letters, 2001, 342, 467-472. | 1.2 | 61 |
| 54 | The Role of Weakly Bound On-Top Oxygen in the Catalytic CO Oxidation Reaction over RuO2(110). Journal of the American Chemical Society, 2004, 126, 1537-1541. | 6.6 | 61 |

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| 55 | Direct Imaging of Catalytically Important Processes in the Oxidation of CO over RuO2(110). Journal of the American Chemical Society, 2001, 123, 11807-11808. | 6.6 | 59 |
| 56 | Low-energy electron-diffraction analysis of the Rh(110)-(2 Ã— 1)-O phase. Surface Science, 1993, 297, L73-L78. | 0.8 | 58 |
| 57 | Comprehensive characterization of the (2Ã—2)-O and the CO-induced overlayers on Pd(111). Surface Science, 2000, 468, 176-186. | 0.8 | 57 |
| 58 | Heterogeneous oxidation catalysis on ruthenium: bridging the pressure and materials gaps and beyond. Journal of Physics Condensed Matter, 2008, 20, 184017. | 0.7 | 57 |
| 59 | Atomic scale insights into electrochemical versus gas phase oxidation of HCl over RuO2-based catalysts: A comparative review. Electrochimica Acta, 2013, 93, 314-333. | 2.6 | 57 |
| 60 | Complex redox chemistry on the RuO2() surface: experiment and theory. Surface Science, 2002, 505, 137-152. | 0.8 | 56 |
| 61 | Transient Experiments on CO2 Formation by the CO Oxidation Reaction over Oxygen-Rich Ru(0001) Surfaces. Journal of Physical Chemistry B, 1999, 103, 6267-6271. | 1.2 | 54 |
| 62 | Catalytic activity of RuO2(1 1 0) in the oxidation of CO. Catalysis Today, 2003, 85, 167-175. | 2.2 | 54 |
| 63 | In situ studies of the oxidation of HCl over RuO2 model catalysts: Stability and reactivity. Journal of Catalysis, 2010, 272, 169-175. | 3.1 | 54 |
| 64 | In situ structureâ€“activity correlation experiments of the ruthenium catalyzed CO oxidation reaction. Catalysis Today, 2009, 145, 236-242. | 2.2 | 52 |
| 65 | Complex Growth of NanoAu on BN Nanomeshes Supported by Ru(0001). Journal of Physical Chemistry C, 2008, 112, 8147-8152. | 1.5 | 51 |
| 66 | Rotational levels of the (000) and (010) states of D216O from hot emission spectra in the 320â€“860cmâ ˆ’1 region. Journal of Molecular Spectroscopy, 2004, 224, 32-60. | 0.4 | 50 |
| 67 | Low-energy electron diffraction analysis of the structure of a Cs-O/Ru(0001) coadsorbate phase. Physical Review B, 1992, 46, 4360-4363. | 1.1 | 49 |
| 68 | Catalytic Activity of the RuO2(100) Surface in the Oxidation of COâ€. Journal of Physical Chemistry B, 2004, 108, 14392-14397. | 1.2 | 46 |
| 69 | Structural analyses of the pure and cesiated Ru(0001)â€“(2Ã—2)-3O phase. Surface Science, 1998, 418, 267-272. | 0.8 | 45 |
| 70 | Rate-Determining Step or Rate-Determining Configuration? The Deacon Reaction over RuO<sub>2</sub>(110) Studied by DFT-Based KMC Simulations. ACS Catalysis, 2017, 7, 128-138. | 5.5 | 45 |
| 71 | Structural analyses of Cs+CO coadsorbed on Ru(0001). Physical Review B, 1995, 51, 4661-4664. | 1.1 | 44 |
| 72 | CO adsorption on the reducedRuO2(110)surface: Energetics and structure. Physical Review B, 2001, 65, . | 1.1 | 44 |

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| 73 | Comment on â€œCO oxidation on ruthenium: The nature of the active catalytic surfaceâ€•by D.W. Goodman, C.H.F. Peden, M.S. Chen. Surface Science, 2007, 601, 5659-5662. | 0.8 | 44 |
| 74 | Atomic Scale Insights into the Initial Oxidation of Ru(0001) Using Molecular Oxygen: A Scanning Tunneling Microscopy Study. Journal of Physical Chemistry C, 2012, 116, 24649-24660. | 1.5 | 44 |
| 75 | Growth of ultrathin films of Fe on Au{001}. Physical Review B, 1993, 48, 1779-1785. | 1.1 | 43 |
| 76 | Experiment-Based Kinetic Monte Carlo Simulations: CO Oxidation over RuO<sub>2</sub>(110). Journal of Physical Chemistry C, 2012, 116, 581-591. | 1.5 | 43 |
| 77 | â€œFirstâ€Principlesâ€•kinetic monte carlo simulations revisited: CO oxidation over RuO<sub>2</sub>(110). Journal of Computational Chemistry, 2012, 33, 757-766. | 1.5 | 43 |
| 78 | Potential-Induced Pitting Corrosion of an IrO<sub>2</sub>(110)-RuO<sub>2</sub>(110)/Ru(0001) Model Electrode under Oxygen Evolution Reaction Conditions. ACS Catalysis, 2019, 9, 6530-6539. | 5.5 | 43 |
| 79 | Oxidation of HCl over TiO<sub>2</sub>-Supported RuO<sub>2</sub>: A Density Functional Theory Study. Journal of Physical Chemistry C, 2010, 114, 22624-22629. | 1.5 | 42 |
| 80 | A LEED structural analysis of the Co(100) surface. Surface Science, 1991, 254, L469-L474. | 0.8 | 41 |
| 81 | Atomic geometry of Ge(111) âˆš3 Ã— âˆš3R30Â°-Ag determined by low-energy electron diffraction. Physical Review B, 1994, 49, 13483-13487. | 1.1 | 41 |
| 82 | Direct comparison of the reactivity of the non-oxidic phase of Ru(0001) and the RuO2 phase in the CO oxidation reaction. Surface Science, 2009, 603, 298-303. | 0.8 | 41 |
| 83 | Fingerprinting technique in low-energy electron diffraction. Surface Science, 1994, 314, 243-268. | 0.8 | 38 |
| 84 | Structure of epitaxial iron oxide films grown on Pt(100) determined by low energy electron diffraction. Surface Science, 1997, 371, 245-254. | 0.8 | 37 |
| 85 | Spectroscopic lineshape study of the self-perturbed oxygen A-band. Journal of Molecular Spectroscopy, 2008, 248, 85-110. | 0.4 | 37 |
| 86 | Novel Insight in the CO Oxidation on RuO2(110) by in Situ Reflectionâˆ’Absorption Infrared Spectroscopy. Journal of Physical Chemistry C, 2009, 113, 14341-14355. | 1.5 | 37 |
| 87 | Oxygen storage capacity <i>versus</i> catalytic activity of ceriaâ€“zirconia solid solutions in CO and HCl oxidation. Catalysis Science and Technology, 2019, 9, 2163-2172. | 2.1 | 37 |
| 88 | Surface x-ray-diffraction study of theRh(111)+(2Ã—2)âˆ’3COstructure. Physical Review B, 1999, 59, 5876-5880. | 1.1 | 35 |
| 89 | Adsorption characteristics ofCOandN2onRuO2(110). Physical Review B, 2001, 63, . | 1.1 | 35 |
| 90 | Unusual Process of Water Formation on RuO2(110) by Hydrogen Exposure at Room Temperature. Journal of Physical Chemistry B, 2006, 110, 14007-14010. | 1.2 | 35 |

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| 91 | Anomalous hydrogen adsorption sites found for the c(2Ã—2)-3H phases formed on the Re(101Ì„0) and Ru(101Ì„0) surfaces. Journal of Chemical Physics, 1998, 108, 8671-8679. | 1.2 | 34 |
| 92 | Catalytic HCl oxidation reaction: Stabilizing effect of Zr-doping on CeO2 nano-rods. Applied Catalysis B: Environmental, 2018, 239, 628-635. | 10.8 | 34 |
| 93 | Low-energy electron diffraction as a direct identification technique: Atomic structures of Ag- and Li-induced Si(111)-(âˆš3 Ã— âˆš3 )R30Â°. Physical Review B, 1993, 48, 15353-15357. | 1.1 | 32 |
| 94 | A low-energy electron diffraction analysis of the R30Â° structure of molecular nitrogen adsorbed on Ru(0001). Chemical Physics Letters, 1994, 219, 452-456. | 1.2 | 32 |
| 95 | Anisotropic thermal displacements of adsorbed atoms and molecules on surfaces studied by low-energy electron diffraction. Physical Review B, 1995, 52, 16812-16829. | 1.1 | 32 |
| 96 | Long-term stability of Ru-based protection layers in extreme ultraviolet lithography: A surface science approach. Journal of Vacuum Science & Technology B, 2007, 25, 1123. | 1.3 | 31 |
| 97 | Intimate interplay of theory and experiments in model catalysis. Surface Science, 2009, 603, 1717-1723. | 0.8 | 30 |
| 98 | Electrochemical stability of RuO2(110)/Ru(0001) model electrodes in the oxygen and chlorine evolution reactions. Electrochimica Acta, 2020, 336, 135713. | 2.6 | 30 |
| 99 | Na adsorption on Ru(0001): a low-energy electron-diffraction analysis of three ordered phases. Surface Science, 1994, 301, 1-10. | 0.8 | 29 |
| 100 | High Pressure Carbon Monoxide Oxidation over Platinum (111). Journal of Physical Chemistry C, 2013, 117, 9932-9942. | 1.5 | 29 |
| 101 | Dynamic response of chlorine atoms on a RuO2(110) model catalyst surface. Physical Chemistry Chemical Physics, 2010, 12, 15358. | 1.3 | 28 |
| 102 | Room Temperature Oxidation of Ruthenium. Journal of Physical Chemistry C, 2013, 117, 15148-15154. | 1.5 | 28 |
| 103 | Synthesis and full characterization of the phase-pure pyrochlore Ce2Zr2O7 and the Îº-Ce2Zr2O8 phases. Applied Catalysis B: Environmental, 2016, 197, 23-34. | 10.8 | 28 |
| 104 | Rational Synthesis Concept for Cerium Oxide Nanoparticles: On the Impact of Particle Size on the Oxygen Storage Capacity. Journal of Physical Chemistry C, 2020, 124, 8736-8748. | 1.5 | 28 |
| 105 | Incommensurate structures and epitaxial growth of Li on Ru(0001): A quantitative low-energy electron-diffraction study. Physical Review B, 1995, 52, 2927-2934. | 1.1 | 27 |
| 106 | Structural analyses of the c(2 Ã— 4)-N + 2O and the (2 Ã— 1)-N phases on Rh(110) by low-energy electron diffraction. Surface Science, 1995, 339, L903-L908. | 0.8 | 27 |
| 107 | The adsorption geometry of the (2 Ã— 1)-2O oxygen phase formed on the Co(101Ì„0) surface. Surface Science, 1997, 370, L201-L206. | 0.8 | 27 |
| 108 | Oxygen-Etching of h-BN/Ru(0001) Nanomesh on the Nano- and Mesoscopic Scale. Journal of Physical Chemistry C, 2008, 112, 10423-10427. | 1.5 | 27 |

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| 109 | Microscopic Insights into the Chlorine Evolution Reaction on RuO2(110): a Mechanistic Ab Initio Atomistic Thermodynamics Study. Electrocatalysis, 2015, 6, 163-172. | 1.5 | 27 |
| 110 | Full Free Energy Diagram of an Electrocatalytic Reaction over a Singleâ€Crystalline Model Electrode. ChemElectroChem, 2017, 4, 2902-2908. | 1.7 | 27 |
| 111 | The atomic geometries of the ordered (2 Ã— 2) and (âˆš3 Ã— âˆš3)R30Â° phases of K, Rb, and Cs on Rh(111) in comparison with Ru(0001). Surface Science, 1996, 360, 271-281. | 0.8 | 26 |
| 112 | Electrospun ceria-based nanofibers for the facile assessment of catalyst morphological stability under harsh HCl oxidation reaction conditions. Catalysis Today, 2015, 253, 207-218. | 2.2 | 26 |
| 113 | Catalytic Stability Studies Employing Dedicated Model Catalysts. Accounts of Chemical Research, 2020, 53, 380-389. | 7.6 | 26 |
| 114 | Structural analyses of ordered rubidium phases on Ru(0001) using low-energy electron diffraction. Physical Review B, 1994, 50, 8126-8129. | 1.1 | 25 |
| 115 | The bending mode vibration of CO on Ru(0001) studied with low-energy electron-diffraction. Surface Science, 1996, 346, 64-72. | 0.8 | 25 |
| 116 | Oxidation and Reduction of Ultrathin Nanocrystalline Ru Films on Silicon:â€‰ Model System for Ru-Capped Extreme Ultraviolet Lithography Optics. Journal of Physical Chemistry C, 2007, 111, 10988-10992. | 1.5 | 25 |
| 117 | Hydrogen-Promoted Chlorination of RuO<sub>2</sub>(110). Journal of Physical Chemistry C, 2010, 114, 10901-10909. | 1.5 | 25 |
| 118 | Kinetic Monte Carlo simulations of heterogeneously catalyzed oxidation reactions. Catalysis Science and Technology, 2014, 4, 583-598. | 2.1 | 25 |
| 119 | Structural aspects of cesium-oxygen phases on Ru(0001). Surface Science, 1995, 342, 134-154. | 0.8 | 24 |
| 120 | Versatile Model System for Studying Processes Ranging from Heterogeneous to Photocatalysis: Epitaxial RuO<sub>2</sub>(110) on TiO<sub>2</sub>(110). Journal of Physical Chemistry C, 2015, 119, 2692-2702. | 1.5 | 24 |
| 121 | STRUCTURAL PROPERTIES OF ALKALI-METAL ATOMS ADSORBED ON Ru(0001). Surface Review and Letters, 1995, 02, 409-422. | 0.5 | 23 |
| 122 | Ge(113) reconstruction stabilized by subsurface interstitials: An x-ray diffraction structure analysis. Physical Review B, 1998, 57, 2315-2320. | 1.1 | 23 |
| 123 | Combined experiment and theory approach in surface chemistry: Stairway to heaven?. Surface Science, 2015, 640, 165-180. | 0.8 | 22 |
| 124 | Visualizing Potentialâ€Induced Pitting Corrosion of Ultrathin Singleâ€Crystalline IrO<sub>2</sub>(110) Films on RuO<sub>2</sub>(110)/Ru(0001) under Electrochemical Water Splitting Conditions. ChemCatChem, 2020, 12, 855-866. | 1.8 | 22 |
| 125 | Thermal Stability of Single-Crystalline IrO<sub>2</sub>(110) Layers: Spectroscopic and Adsorption Studies. Journal of Physical Chemistry C, 2020, 124, 15324-15336. | 1.5 | 22 |
| 126 | Atomic bond configuration of Ge(111)-(âˆš3 Ã— âˆš3 )R30Â°-Au: A low-energy electron-diffraction study. Physical Review B, 1995, 51, 4231-4235. | 1.1 | 21 |

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| 127 | Reaction mechanism of ammonia oxidation over RuO2(110): A combined theory/experiment approach. Surface Science, 2009, 603, L113-L116. | 0.8 | 21 |
| 128 | Growth of Ultrathin Single-Crystalline IrO<sub>2</sub>(110) Films on a TiO<sub>2</sub>(110) Single Crystal. Langmuir, 2019, 35, 7720-7726. | 1.6 | 21 |
| 129 | In Situ Study of the Oxygen-Induced Transformation of Pyrochlore Ce<sub>2</sub>Zr<sub>2</sub>O<sub>7+<i>x</i></sub> to the Îº-Ce<sub>2</sub>Zr<sub>2</sub>O<sub>8</sub> Phase. Chemistry of Materials, 2017, 29, 9218-9226. | 3.2 | 20 |
| 130 | Template-Assisted Growth of Ultrathin Single-Crystalline IrO<sub>2</sub>(110) Films on RuO<sub>2</sub>(110)/Ru(0001) and Its Thermal Stability. Journal of Physical Chemistry C, 2018, 122, 14725-14732. | 1.5 | 20 |
| 131 | CeO<sub>2</sub> Wetting Layer on ZrO<sub>2</sub> Particle with Sharp Solid Interface as Highly Active and Stable Catalyst for HCl Oxidation Reaction. ACS Catalysis, 2019, 9, 10680-10693. | 5.5 | 20 |
| 132 | Multilayer adsorption and desorption: Cs and Li on Ru(0001). Physical Review B, 1996, 54, 5073-5080. | 1.1 | 19 |
| 133 | In Situ Studies of the Electrochemical Reduction of a Supported Ultrathin Single-Crystalline RuO<sub>2</sub>(110) Layer in an Acidic Environment. Journal of Physical Chemistry C, 2019, 123, 3979-3987. | 1.5 | 19 |
| 134 | Structural properties of ordered alkali metal overlayers: a LEED analysis of the Ru(0001)â^’(â^š3 Ã— â^š3) R30Â°-Li phase in comparison with related systems. Surface Science, 1995, 337, 198-204. | 0.8 | 18 |
| 135 | Comment on â€œInteraction of Hydrogen with RuO2(110) Surfaces:Â Activity Differences between Various Oxygen Speciesâ€ Journal of Physical Chemistry B, 2006, 110, 22947-22947. | 1.2 | 18 |
| 136 | Modern Nanotemplates Based on Graphene and Single Layer h-BN. Zeitschrift Fur Physikalische Chemie, 2009, 223, 157-168. | 1.4 | 18 |
| 137 | Stable and Active Mixed Zrâ€“Ce Oxides for Catalyzing the Gas Phase Oxidation of HCl. Catalysis Letters, 2013, 143, 1362-1367. | 1.4 | 18 |
| 138 | Electrospun Metal Oxide Nanofibres for the Assessment of Catalyst Morphological Stability under Harsh Reaction Conditions. ChemCatChem, 2013, 5, 2621-2626. | 1.8 | 18 |
| 139 | The stabilizing effect of water and high reaction temperatures on the CeO2-catalyst in the harsh HCl oxidation reaction. Journal of Catalysis, 2018, 357, 257-262. | 3.1 | 18 |
| 140 | Epitaxial growth of magnesium on Ru(0001). Physical Review B, 1993, 48, 5572-5578. | 1.1 | 17 |
| 141 | Understanding the Structural Deactivation of Ruthenium Catalysts on an Atomic Scale under both Oxidizing and Reducing Conditions. Angewandte Chemie, 2005, 117, 939-942. | 1.6 | 17 |
| 142 | Atomic scale insights into the initial oxidation of Ru(0001) using atomic oxygen. Surface Science, 2014, 622, 24-34. | 0.8 | 17 |
| 143 | Nanoscale Origin of Mesoscale Roughening: Real-Time Tracking and Identification of Three Distinct Ruthenium Oxide Phases in Ruthenium Oxidation. ACS Nano, 2015, 9, 8468-8473. | 7.3 | 17 |
| 144 | Mixed Ru<i><sub>x</sub></i>Ir<sub>1â€“<i>x</i></sub>O<sub>2</sub> Oxide Catalyst with Well-Defined and Varying Composition Applied to CO Oxidation. Journal of Physical Chemistry C, 2020, 124, 18670-18683. | 1.5 | 17 |

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| 145 | Mixed Ru<sub><i>x</i></sub>Ir<sub>1âˆ’<i>x</i></sub>O<sub>2</sub> Supported on Rutile TiO<sub>2</sub>: Catalytic Methane Combustion, a Model Study. ChemCatChem, 2021, 13, 3983-3994. | 1.8 | 17 |
| 146 | Operando Stability Studies of Ultrathin Single-Crystalline IrO<sub>2</sub>(110) Films under Acidic Oxygen Evolution Reaction Conditions. ACS Catalysis, 2021, 11, 12651-12660. | 5.5 | 17 |
| 147 | Structural studies of WC(0001) and the adsorption of benzene. Journal of Electron Spectroscopy and Related Phenomena, 1998, 96, 53-60. | 0.8 | 16 |
| 148 | Synthesis and Physicochemical Characterization of Ce<sub>1âˆ’<i>x</i></sub>Gd<sub><i>x</i></sub>O<sub>2âˆ’<i>Î´</i></sub>: A Case Study on the Impact of the Oxygen Storage Capacity on the HCl Oxidation Reaction. ChemCatChem, 2015, 7, 3738-3747. | 1.8 | 16 |
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