

Josef Myslivecek

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

2,740
citations

304701

22
h-index

175241

52
g-index

61
all docs

61
docs citations

61
times ranked

3845
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1 | Counting electrons on supported nanoparticles. <i>Nature Materials</i> , 2016, 15, 284-288. | 27.5 | 469 |
| 2 | Creating single-atom Pt-ceria catalysts by surface step decoration. <i>Nature Communications</i> , 2016, 7, 10801. | 12.8 | 388 |
| 3 | Maximum Noble-Metal Efficiency in Catalytic Materials: Atomically Dispersed Surface Platinum. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 10525-10530. | 13.8 | 384 |
| 4 | A versatile fabrication method for cluster superlattices. <i>New Journal of Physics</i> , 2009, 11, 103045. | 2.9 | 164 |
| 5 | Epitaxial Cubic Ce ₂ O ₃ Films via Ce-CeO ₂ Interfacial Reaction. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 866-871. | 4.6 | 99 |
| 6 | Adsorption sites, metal-support interactions, and oxygen spillover identified by vibrational spectroscopy of adsorbed CO: A model study on Pt/ceria catalysts. <i>Journal of Catalysis</i> , 2012, 289, 118-126. | 6.2 | 88 |
| 7 | Water interaction with CeO ₂ (1 1 1)/Cu(1 1 1) model catalyst surface. <i>Catalysis Today</i> , 2012, 181, 124-132. | 4.4 | 85 |
| 8 | Ordered Phases of Reduced Ceria As Epitaxial Films on Cu(111). <i>Journal of Physical Chemistry C</i> , 2014, 118, 357-365. | 3.1 | 83 |
| 9 | Adjusting Morphology and Surface Reduction of CeO ₂ (111) Thin Films on Cu(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 7496-7503. | 3.1 | 82 |
| 10 | Structure of the adatom electron band of the Si(111)-(7 \times 7) surface. <i>Physical Review B</i> , 2006, 73, . | 3.2 | 79 |
| 11 | On the microscopic origin of the kinetic step bunching instability on vicinal Si(). <i>Surface Science</i> , 2002, 520, 193-206. | 1.9 | 77 |
| 12 | Unconventional features of Ag epitaxy on the Si(111)-(7 \times 7) surface. <i>Physical Review B</i> , 2001, 63, . | 3.2 | 53 |
| 13 | Bulk Hydroxylation and Effective Water Splitting by Highly Reduced Cerium Oxide: The Role of O Vacancy Coordination. <i>ACS Catalysis</i> , 2018, 8, 4354-4363. | 11.2 | 52 |
| 14 | Distinct Physicochemical Properties of the First Ceria Monolayer on Cu(111). <i>Journal of Physical Chemistry C</i> , 2012, 116, 6677-6684. | 3.1 | 40 |
| 15 | Adsorption and diffusion of Ag atoms on Si(1 1 1)-(7 \times 7) surface. <i>Surface Science</i> , 2001, 482-485, 386-390. | 1.9 | 35 |
| 16 | Anode Material for Hydrogen Polymer Membrane Fuel Cell: Pt-CeO ₂ RF-Sputtered Thin Films. <i>Journal of the Electrochemical Society</i> , 2009, 156, B938. | 2.9 | 34 |
| 17 | Transition from 2D to 3D growth during Ag/Si(111)-(7 \times 7) heteroepitaxy. <i>Surface Science</i> , 2001, 482-485, 797-801. | 1.9 | 31 |
| 18 | Modification of the conductance of single fullerene molecules by endohedral doping. <i>Applied Physics Letters</i> , 2009, 95, 133118. | 3.3 | 24 |

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|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Scaling of submonolayer island sizes in surfactant-mediated epitaxy of semiconductors. <i>Physical Review B</i> , 2004, 70, . | 3.2 | 23 |
| 20 | Optimized Ge nanowire arrays on Si by modified surfactant mediated epitaxy. <i>Physical Review B</i> , 2007, 75, . | 3.2 | 23 |
| 21 | Nanoscale charge transport measurements using a double-tip scanning tunneling microscope. <i>Journal of Applied Physics</i> , 2008, 104, 094307. | 2.5 | 23 |
| 22 | Magic islands and barriers to attachment: $\text{As}/\text{Si}(111)\sqrt{7}\times\sqrt{7}$ growth model. <i>Physical Review B</i> , 1999, 60, 13869-13873. | 3.2 | 22 |
| 23 | On the origin of the kinetic growth instability of homoepitaxy on $\text{Si}(001)$. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 89, 410-414. | 3.5 | 22 |
| 24 | Growth mechanisms in $\text{Ge}/\text{Si}(111)$ heteroepitaxy with and without Bi as a surfactant. <i>Physical Review B</i> , 2004, 69, . | 3.2 | 22 |
| 25 | CO and methanol adsorption on $(2\sqrt{3}\times 1)\text{Pt}(110)$ and ion-eroded $\text{Pt}(111)$ model catalysts. <i>Surface and Interface Analysis</i> , 2011, 43, 1325-1331. | 1.8 | 21 |
| 26 | Ultimate dispersion of metallic and ionic platinum on ceria. <i>Journal of Materials Chemistry A</i> , 2019, 7, 13019-13028. | 10.3 | 21 |
| 27 | Cobalt Oxide-Supported Pt Electrocatalysts: Intimate Correlation between Particle Size, Electronic Metal-Support Interaction and Stability. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 8365-8371. | 4.6 | 21 |
| 28 | Comment on "Ordered Phases of Reduced Ceria as Epitaxial Films on $\text{Cu}(111)$ ". <i>Journal of Physical Chemistry C</i> , 2014, 118, 5058-5059. | 3.1 | 20 |
| 29 | Charge transfer and spillover phenomena in ceria-supported iridium catalysts: A model study. <i>Journal of Chemical Physics</i> , 2019, 151, 204703. | 3.0 | 20 |
| 30 | Adatom and Nanoparticle Dynamics on Single-Atom Catalyst Substrates. <i>ACS Catalysis</i> , 2022, 12, 4859-4871. | 11.2 | 19 |
| 31 | STM study of nucleation of Ag on $\text{Si}(111)\sqrt{7}\times\sqrt{7}$ at submonolayer coverage. <i>Surface Science</i> , 2000, 454-456, 847-850. | 1.9 | 18 |
| 32 | Polarity driven morphology of $\text{CeO}_2(100)$ islands on $\text{Cu}(111)$. <i>Applied Surface Science</i> , 2013, 285, 766-771. | 6.1 | 18 |
| 33 | Atomic and Electronic Structure of $\text{V}\delta\text{-Rh}(110)$ Near-Surface Alloy. <i>Journal of Physical Chemistry C</i> , 2013, 117, 12679-12688. | 3.1 | 18 |
| 34 | Nanometer-Range Strain Distribution in Layered Incommensurate Systems. <i>Physical Review Letters</i> , 2012, 109, 266102. | 7.8 | 15 |
| 35 | Scanning tunneling spectroscopy and manipulation of C_{60} on $\text{Cu}(111)$. <i>Applied Physics A: Materials Science and Processing</i> , 2007, 87, 475-478. | 2.3 | 14 |
| 36 | STM study of nucleation of Ag on $\text{Si}(111)\sqrt{7}\times\sqrt{7}$ surface. <i>European Physical Journal D</i> , 1999, 49, 1613-1619. | 0.4 | 13 |

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|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Scanning tunneling microscopy contrast in lateral Ge-Si nanostructures on $\text{Si}(111)$. Physical Review B, 2010, 81, . | 3.2 | 13 |
| 38 | Endohedral Fullerene $\text{Ce}@C_{82}$ on Cu(111): Orientation, Electronic Structure, and Electron-Vibration Coupling. Journal of Physical Chemistry C, 2013, 117, 1656-1662. | 3.1 | 12 |
| 39 | One-dimensional ordering of Ge nanoclusters along atomically straight steps of Si(111). Applied Physics Letters, 2007, 90, 013108. | 3.3 | 11 |
| 40 | Selective electrooxidation of 2-propanol on Pt nanoparticles supported on Co_3O_4 : an in-situ study on atomically defined model systems. Journal Physics D: Applied Physics, 2021, 54, 164002. | 2.8 | 11 |
| 41 | Electron-induced excitation of vibrations of Ce atoms inside a C_{80} cage. Physical Review B, 2011, 83, . | 3.2 | 9 |
| 42 | Heteroepitaxy of Cerium Oxide Thin Films on Cu(111). Materials, 2015, 8, 6346-6359. | 2.9 | 9 |
| 43 | Stability of the Pd/ Co_3O_4 (111) Model Catalysts in Oxidizing and Humid Environments. Journal of Physical Chemistry C, 2021, 125, 2907-2917. | 3.1 | 9 |
| 44 | Reactive interaction of isopropanol with $\text{Co}_3\text{O}_4(111)$ and $\text{Pt}/\text{Co}_3\text{O}_4(111)$ model catalysts. Journal of Catalysis, 2021, 398, 171-184. | 6.2 | 8 |
| 45 | Self-assembly of periodic nanoclusters of Si and Ge along atomically straight steps of a vicinal Si(111). Journal of Applied Physics, 2007, 101, 081702. | 2.5 | 7 |
| 46 | Faceting Transition at the Oxide-Metal Interface: (111) Facets on Cu(110) Induced by Carpet-Like Ceria Overlayer. Journal of Physical Chemistry C, 2015, 119, 1851-1858. | 3.1 | 7 |
| 47 | Ordered phases of reduced ceria as inverse model catalysts. Applied Surface Science, 2019, 465, 557-563. | 6.1 | 6 |
| 48 | Ordered SiGe islands on vicinal and pre-patterned Si(001) substrates. Microelectronic Engineering, 2006, 83, 1730-1735. | 2.4 | 3 |
| 49 | Two-dimensional, high valence-doped ceria: $\text{Ce}_{0.6}\text{WO}_{1.2}$ (100)/W(110). Applied Surface Science, 2016, 372, 152-157. | 6.1 | 3 |
| 50 | Thermal stability of cobalt oxide thin films and its enhancement by cerium oxide. Applied Surface Science, 2022, 593, 153430. | 6.1 | 3 |
| 51 | Reconstruction-Determined Diffusion of Ag Adatoms on the Si(111)-(7x7) Surface. European Physical Journal D, 2003, 53, 69-74. | 0.4 | 2 |
| 52 | Ag/Si(111)-(7x7) Heteroepitaxy: STM Experiment and KMC Simulations. European Physical Journal D, 2003, 53, 41-48. | 0.4 | 2 |
| 53 | Redox-mediated C-C bond scission in alcohols adsorbed on CeO_2 thin films. Journal of Physics Condensed Matter, 2022, 34, 194002. | 1.8 | 2 |
| 54 | 1D tungsten oxide nanostructures on a Cu(100) surface. Journal of Physics Condensed Matter, 2018, 30, 465001. | 1.8 | 1 |

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|----|---------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Aggregation of gold condensate on HOPG substrate. <i>Vacuum</i> , 1998, 50, 179-181. | 3.5 | 1 |
| 56 | Kinetic Monte Carlo simulations of Si/Si(111)7 $\sqrt{3}$ homoepitaxy. <i>European Physical Journal D</i> , 1999, 49, 1605-1612. | 0.4 | 0 |
| 57 | Kinetic and strain-driven growth phenomena on Si(001). <i>Physica Status Solidi A</i> , 2004, 201, 324-328. | 1.7 | 0 |
| 58 | Growth of transition metals on cerium tungstate model catalyst layers. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 395002. | 1.8 | 0 |
| 59 | CeOx(111)/Cu(111) Thin Films as Model Catalyst Supports. <i>Springer Series in Materials Science</i> , 2016, , 233-250. | 0.6 | 0 |