Friedrich Esch

List of Publications by Year
in descending order

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64	3,367	236925	138484
papers	citations	25 h-index	58 g-index

67	67	67	5053
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electron Localization Determines Defect Formation on Ceria Substrates. Science, 2005, 309, 752-755.	12.6	1,211
2	Controlling on-surface polymerization by hierarchical and substrate-directed growth. Nature Chemistry, 2012, 4, 215-220.	13.6	483
3	Metalâ^'Organic Coordination Interactions in Feâ^'Terephthalic Acid Networks on Cu(100). Journal of the American Chemical Society, 2008, 130, 2108-2113.	13.7	147
4	Evidence for Incomplete Charge Transfer and La-Derived States in the Valence Bands of Endohedrally DopedLa@C82. Physical Review Letters, 1997, 79, 2289-2292.	7.8	109
5	Ultrafast Charge Transfer Times of Chemisorbed Species from Auger Resonant Raman Studies. Physical Review Letters, 1998, 80, 1774-1777.	7.8	92
6	Size-Selected Monodisperse Nanoclusters on Supported Graphene: Bonding, Isomerism, and Mobility. Nano Letters, 2012, 12, 5907-5912.	9.1	76
7	Topography and work function measurements of thin MgO(001) films on Ag(001) by nc-AFM and KPFM. Physical Chemistry Chemical Physics, 2010, 12, 3203.	2.8	75
8	Femtosecond dynamics of adsorbate charge-transfer processes as probed by high-resolution core-level spectroscopy. Physical Review B, 1998, 57, 11951-11954.	3.2	66
9	Regular and irregular spatial patterns in the catalytic reduction of NO with NH3 on Pt(100). Catalysis Letters, 1992, 13, 371-382.	2.6	61
10	Initial oxidation of the Rh(110) surface: Ordered adsorption and surface oxide structures. Journal of Chemical Physics, 2006, 125, 094701.	3.0	57
11	Fundamental Insight into the Substrateâ€Đependent Ripening of Monodisperse Clusters. ChemCatChem, 2013, 5, 3330-3341.	3.7	52
12	Initial Oxidation of a Rh(110) Surface Using Atomic or Molecular Oxygen and Reduction of the Surface Oxide by Hydrogen. Journal of Physical Chemistry B, 2005, 109, 13649-13655.	2.6	48
13	Pentacene Nanorails on Au(110). Langmuir, 2008, 24, 767-772.	3.5	48
14	AFM tip characterization by Kelvin probe force microscopy. New Journal of Physics, 2010, 12, 093024.	2.9	45
15	Structural determination of molecules adsorbed in different sites by means of chemical shift photoelectron diffraction: c(4Ã—2)-CO on Pt(111). Surface Science, 2000, 459, L467-L474.	1.9	41
16	The formation of a NO-NH3 coadsorption complex on a Pt(l11) surface: a NEXAFS study. Catalysis Letters, 1996, 38, 165-170.	2.6	40
17	Photoresponse of supramolecular self-assembled networks on grapheneâ€“diamond interfaces. Nature Communications, 2016, 7, 10700.	12.8	40
18	The NO + NH3 reaction on Pt(100): steady state and oscillatory kinetics. Surface Science, 1992, 271, L367-L372.	1.9	36

#	Article	IF	Citations
19	(10Ã—2) strained reconstruction induced by oxygen adsorption on the Rh(110) surface. Journal of Chemical Physics, 2001, 114, 4221-4225.	3.0	32
20	The NO + H2 and NO + NH3 reactions on Pt(100): steady state and oscillatory kinetics. Surface Science, 1992, 269-270, 481-487.	1.9	29
21	Ethene to Graphene: Surface Catalyzed Chemical Pathways, Intermediates, and Assembly. Journal of Physical Chemistry C, 2017, 121, 9413-9423.	3.1	29
22	Atomic nitrogen on steps: A fast x-ray photoelectron spectroscopy study of the NO uptake on Rh(533), Rh(311), and Rh(111). Journal of Chemical Physics, 1999, 110, 4013-4019.	3.0	28
23	Two-Step Reaction on a Strained, Nanoscale Segmented Surface. Physical Review Letters, 2004, 93, 126104.	7.8	28
24	Elementally Resolved Imaging of Dynamic Surface Processes: Chemical Waves in the SystemRh(110)/NO+H2. Physical Review Letters, 1999, 83, 1882-1885.	7.8	27
25	The FAST module: An add-on unit for driving commercial scanning probe microscopes at video rate and beyond. Review of Scientific Instruments, 2011, 82, 053702.	1.3	26
26	Steady state kinetics of the decomposition and oxidation of methanol on Pd(110). Surface Science, 1993, 297, 175-185.	1.9	25
27	Dynamics of the O induced reconstruction of the Rh(110) surface: A scanning tunnelling microscopy study. Journal of Chemical Physics, 2001, 115, 477-481.	3.0	25
28	Shedding light on catalytic ignition: coverage changes during CO oxidation on Pd(110). Catalysis Letters, 1998, 51, 187-190.	2.6	22
29	Resonant auger processes in adsorbates. Journal of Electron Spectroscopy and Related Phenomena, 1998, 93, 135-141.	1.7	21
30	Three-Dimensional Bicomponent Supramolecular Nanoporous Self-Assembly on a Hybrid All-Carbon Atomically Flat and Transparent Platform. Nano Letters, 2014, 14, 4486-4492.	9.1	20
31	Chemically resolved dynamical imaging of catalytic reactions on composite surfaces. Catalysis Letters, 1998, 52, 85-90.	2.6	19
32	A fast X-ray photoelectron spectroscopy study of the NOâ€“H2 reaction over Rh(533): understanding hysteresis and oscillations in the reaction rate. Surface Science, 1998, 416, 264-273.	1.9	19
33	Title is missing!. Catalysis Letters, 1999, 63, 13-19.	2.6	16
34	Chemical waves and adsorbate-induced segregation on a Pt(100) surface microstructured with a thin Rh/Pt film. Surface Science, 1999, 443, 245-252.	1.9	16
35	The new FAST module: A portable and transparent add-on module for time-resolved investigations with commercial scanning probe microscopes. Ultramicroscopy, 2019, 205, 49-56.	1.9	16
36	K and mixed K+O adlayers on Rh(110). Journal of Chemical Physics, 2006, 124, 014706.	3.0	15

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37	Reactivity and deconstruction of the (1Ã—2)-Rh(110) surface studied by scanning tunneling microscopy. Journal of Chemical Physics, 2002, 116, 7200-7206.	3.0	14
38	NH₃â€“NO Coadsorption System on Pt(111). I. Structure of the Mixed Layer. Journal of Physical Chemistry C, 2013, 117, 21186-21195.	3.1	14
39	Plasmonic support-mediated activation of 1 nm platinum clusters for catalysis. Physical Chemistry Chemical Physics, 2017, 19, 30570-30577.	2.8	14
40	Cluster Catalysis with Lattice Oxygen: Tracing Oxygen Transport from a Magnetite (001) Support onto Small Pt Clusters. ACS Catalysis, 2021, 11, 9519-9529.	11.2	14
41	Identification of different surface species of NO adsorbed on Ru(0001) with NEXAFS. Surface Science, 1996, 355, L253-L258.	1.9	13
42	Nuclear dynamics during the N1sautoionization of physisorbedN2. Physical Review B, 1999, 60, 16143-16150.	3.2	13
43	Morphology and magnetic properties of thin films of Rh on highly oriented pyrolitic graphite. Physical Review B, 2000, 63, .	3.2	13
44	Effects of Lattice Expansion on the Reactivity of a One-Dimensional Oxide. Journal of the American Chemical Society, 2009, 131, 3253-3259.	13.7	12
45	Vibrational fine structure on C1s core-level photoemission: Ni(111)â€“ethyne and Ni(111)â€“2-butyne. Surface Science, 2001, 488, 43-51.	1.9	11
46	Influence of Local Defects on the Dynamics of Oâ€“H Bond Breaking and Formation on a Magnetite Surface. Journal of Physical Chemistry C, 2019, 123, 19742-19747.	3.1	11
47	A fast x-ray photoelectron spectroscopy study of the NO-H2 reaction over Rh(533): Identifying surface species. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 1014-1016.	2.1	10
48	Water Production Reaction on Rh(110). Journal of the American Chemical Society, 2005, 127, 11454-11459.	13.7	10
49	NH₃â€“NO Coadsorption System on Pt(111). II. Intermolecular Interaction. Journal of Physical Chemistry C, 2013, 117, 21196-21202.	3.1	10
50	Gas-Phase Transport during the Spreading of MoO3on Al2O3Support Surfaces:Â Photoelectron Spectromicroscopic Studyâ€. Journal of Physical Chemistry B, 2004, 108, 14223-14231.	2.6	9
51	A Surface Core Level Shift Study of Hydrogen-Induced Ordered Structures on Rh(110). Journal of Physical Chemistry C, 2008, 112, 14475-14480.	3.1	9
52	Towards Sizeâ€€ontrolled Deposition of Palladium Nanoparticles from Polyoxometalate Precursors: An Electrochemical Scanning Tunneling Microscopy Study. ChemElectroChem, 2021, 8, 1280-1288.	3.4	9
53	A Microscopy Approach to Investigating the Energetics of Small Supported Metal Clusters. Journal of Physical Chemistry C, 2018, 122, 22569-22576.	3.1	8
54	Orderâ€“disorder phase transition of the subsurface cation vacancy reconstruction on Fe3O4(001). Physical Chemistry Chemical Physics, 2020, 22, 8336-8343.	2.8	8

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55	K-Stabilized High-Oxygen-Coverage States on Rh(110):â€‰ A Low-Pressure Pathway to Formation of Surface Oxide. Journal of Physical Chemistry B, 2005, 109, 11980-11985.	2.6	6
56	How to select fast scanning frequencies for high-resolution fast STM measurements with a conventional microscope. Measurement Science and Technology, 2012, 23, 055402.	2.6	5
57	ANGLE-SCANNED PHOTOELECTRON DIFFRACTION: FROM CLEAN SURFACES TO COMPLEX ADSORPTION SYSTEMS. Surface Review and Letters, 2002, 09, 741-747.	1.1	3
58	Intrinsically aligned chemo-mechanical functionalization of twin cantilever structures. Nanotechnology, 2008, 19, 445502.	2.6	3
59	Ultrathin magnesia films as support for molecules and metal clusters: Tuning reactivity by thickness and composition. Physica Status Solidi (B): Basic Research, 2010, 247, 1001-1015.	1.5	3
60	Nanoscale patterning at the Si/SiO2/graphene interface by focused He+ beam. Nanotechnology, 2020, 31, 505302.	2.6	2
61	Chemical functionalization of atomically flat cantilever surfaces. Microelectronic Engineering, 2009, 86, 1200-1203.	2.4	1
62	Au(111)-supported Platinum Nanoparticles: Ripening and Activity. MRS Advances, 2017, 2, 439-444.	0.9	1
63	Spectromicroscopy of catalytic relevant processes with sub-micron resolution. AIP Conference Proceedings, 2000, , .	0.4	0
64	The molecular wagon that stays on track. Science, 2020, 370, 912-912.	12.6	0