

Harald Ibach

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5898641/publications.pdf>

Version: 2024-02-01

93
papers

5,519
citations

109264

35
h-index

79644

73
g-index

93
all docs

93
docs citations

93
times ranked

2672
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Quantum motion of hydrogen on Ni(100) surfaces. <i>Physical Review B</i> , 2020, 102, . | 1.1 | 1 |
| 2 | Magnon dispersion in Ni/Co multilayers grown on Cu(100). <i>Physical Review B</i> , 2019, 99, . | 1.1 | 4 |
| 3 | Quest for magnons in ultrathin nickel films. <i>Physical Review B</i> , 2018, 98, . | 1.1 | 5 |
| 4 | Repulsive Interactions Induced by Specific Adsorption: Anomalous Step Diffusivity and Inadequacy of Nearest-Neighbor Ising Model (Part II Theory). <i>Surface Science</i> , 2017, 659, 52-57. | 0.8 | 2 |
| 5 | Electron energy loss spectroscopy with parallel readout of energy and momentum. <i>Review of Scientific Instruments</i> , 2017, 88, 033903. | 0.6 | 14 |
| 6 | Lifetime and mean free path of spin waves in ultrathin cobalt films. <i>Physical Review B</i> , 2016, 94, . | 1.1 | 12 |
| 7 | High resolution electron energy loss spectroscopy of spin waves in ultra-thin cobalt films. <i>Surface and Interface Analysis</i> , 2016, 48, 1104-1107. | 0.8 | 8 |
| 8 | Spin waves in ultrathin hexagonal cobalt films on W(110), Cu(111), and Au(111) surfaces. <i>Physical Review B</i> , 2015, 92, . | 1.1 | 18 |
| 9 | Intensities of surface spin wave excitations in inelastic electron scattering. <i>Physical Review B</i> , 2014, 89, . | 1.1 | 4 |
| 10 | Standing Spin Waves in Ultrathin Magnetic Films: A Method to Test for Layer-Dependent Exchange Coupling. <i>Physical Review Letters</i> , 2014, 112, 127202. | 2.9 | 18 |
| 11 | High resolution electron energy loss spectroscopy of spin waves in ultra-thin film " The return of the adiabatic approximation?. <i>Surface Science</i> , 2014, 630, 301-310. | 0.8 | 12 |
| 12 | Large wave vector surface spin waves of the nanomartensitic phase in ultrathin iron films on Cu(100). <i>Europhysics Letters</i> , 2013, 101, 17003. | 0.7 | 11 |
| 13 | Observation of large wave vector interface spin waves: Ni(100)/fcc Co(100) and Cu(100)/Co(100). <i>Physical Review B</i> , 2013, 87, . | 1.1 | 11 |
| 14 | Surface spin waves of fcc cobalt films on Cu(100): High-resolution spectra and comparison to theory. <i>Physical Review B</i> , 2012, 86, . | 1.1 | 28 |
| 15 | Electron energy loss spectroscopy of the vibration modes of water on Ag(100) and Ag(115) surfaces and comparison to Au(100), Au(111) and Au(115). <i>Surface Science</i> , 2012, 606, 1534-1541. | 0.8 | 20 |
| 16 | Electron energy loss spectrometers: An advanced operation mode for the lens system and the quantitative calculation of solid angle and transmission. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2012, 185, 61-70. | 0.8 | 21 |
| 17 | Electrical and structural properties of stepped, partially reconstructed Au(11n) surfaces in HClO ₄ and H ₂ SO ₄ electrolytes. <i>Surface Science</i> , 2011, 605, 232-239. | 0.8 | 3 |
| 18 | Interface capacitance of nano-patterned electrodes. <i>Surface Science</i> , 2011, 605, 240-247. | 0.8 | 2 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | An electron energy loss spectrometer designed for studies of electronic energy losses and spin waves in the large momentum regime. <i>Review of Scientific Instruments</i> , 2011, 82, 123904. | 0.6 | 21 |
| 20 | Vibration spectroscopy of water on stepped gold surfaces. <i>Surface Science</i> , 2010, 604, 377-385. | 0.8 | 24 |
| 21 | A simulation of two-dimensional Ostwald ripening on silver electrodes. <i>Electrochimica Acta</i> , 2010, 55, 5411-5413. | 2.6 | 15 |
| 22 | Anomalous Helmholtz-capacitance on stepped surfaces of silver and gold. <i>Electrochimica Acta</i> , 2009, 54, 4305-4311. | 2.6 | 21 |
| 23 | Reconstruction on Au(001) vicinal surfaces in UHV and in sulfuric acid solution. <i>Surface Science</i> , 2009, 603, 670-675. | 0.8 | 11 |
| 24 | Comments on the article entitled "Incompatibility of the Shuttleworth equation with Herman's mathematical structure of thermodynamics" by D.J. Bottomley, Lasse Makkonen and Kari Kolari [<i>Surface Science</i> 603 (2009) 97]. <i>Surface Science</i> , 2009, 603, 2352-2355. | 0.8 | 23 |
| 25 | Determination of the step dipole moment and the step line tension on Ag(001) electrodes. <i>Electrochimica Acta</i> , 2008, 53, 6818-6823. | 2.6 | 16 |
| 26 | Measurement of step and kink energies and of the step-edge stiffness from island studies on Pt(111). <i>Physical Review B</i> , 2007, 75, . | 1.1 | 23 |
| 27 | A novel approach to measure the step line tension and the step dipole moment on vicinal Au(001) electrodes. <i>Surface Science</i> , 2007, 601, 1876-1885. | 0.8 | 22 |
| 28 | Electron spectrometers for inelastic scattering from magnetic surface excitations. <i>Surface and Interface Analysis</i> , 2006, 38, 1615-1617. | 0.8 | 9 |
| 29 | The thermodynamics of electrochemical annealing. <i>Surface Science</i> , 2005, 595, 127-137. | 0.8 | 87 |
| 30 | Adsorbate-induced surface stress and self-assembly of (2 $\sqrt{3}$ -1)O on Cu(110) measured with an STM. <i>Physical Review B</i> , 2005, 72, . | 1.1 | 14 |
| 31 | Estimation of the electron-phonon coupling parameter of Mo(110)-H and W(110)-H. <i>Physical Review B</i> , 2004, 69, . | 1.1 | 8 |
| 32 | Spin-wave excitation observed by spin-polarized electron energy loss spectroscopy: a new method for the investigation of surface- and thin-film spin waves on the atomic scale. <i>Thin Solid Films</i> , 2004, 464-465, 42-47. | 0.8 | 20 |
| 33 | The relation between the strain-dependence of the heat of adsorption and the coverage dependence of the adsorbate induced surface stress. <i>Surface Science</i> , 2004, 556, 71-77. | 0.8 | 19 |
| 34 | The instability of vicinal electrode surfaces against step bunching I: Experiment. <i>Surface Science</i> , 2004, 573, 17-23. | 0.8 | 11 |
| 35 | The instability of vicinal electrode surfaces against step bunching II: Theory. <i>Surface Science</i> , 2004, 573, 24-31. | 0.8 | 14 |
| 36 | Spin waves in ultrathin Co-films measured by spin polarized electron energy loss spectroscopy. <i>Surface Science</i> , 2004, 566-568, 241-245. | 0.8 | 20 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Island equilibrium shape and shape fluctuations on the reconstructed Au(100) surface. Surface Science, 2004, 564, 201-210. | 0.8 | 10 |
| 38 | Potential dependence of the step line tension on surfaces in contact with an electrolyte. Journal of Electroanalytical Chemistry, 2003, 544, 13-23. | 1.9 | 22 |
| 39 | Comment on: "Surface-embedded-atom model of the potential-induced lifting of the reconstruction of Au(100)" by M.I. Haftel and M. Rosen. Surface Science, 2003, 540, 504-507. | 0.8 | 6 |
| 40 | Steady-state surface stress induced in noble gas sputtering. Thin Solid Films, 2003, 428, 6-10. | 0.8 | 22 |
| 41 | Spin-Polarized Electron Energy Loss Spectroscopy of High Energy, Large Wave Vector Spin Waves in Ultrathin fcc Co Films on Cu(001). Physical Review Letters, 2003, 91, 147201. | 2.9 | 160 |
| 42 | A novel spectrometer for spin-polarized electron energy-loss spectroscopy. Review of Scientific Instruments, 2003, 74, 4089-4095. | 0.6 | 50 |
| 43 | Step Line Tension on a Metal Electrode. Physical Review Letters, 2003, 91, 016106. | 2.9 | 36 |
| 44 | Localized theory of adsorbate-induced surface stress: Application to the Li/Mo(110) system. Physical Review B, 2002, 66, . | 1.1 | 9 |
| 45 | Potential dependence of step and kink energies on Au(100) electrodes in sulfuric acid. Faraday Discussions, 2002, 121, 27-42. | 1.6 | 16 |
| 46 | Anomalies in the phonon dispersion of Mo()/Li" a Kohn anomaly or a stress induced effect?. Surface Science, 2002, 502-503, 417-421. | 0.8 | 3 |
| 47 | 4.4 Surface free energy and surface stress. Landolt-Börnstein - Group III Condensed Matter, 2002, , 303-312. | 0.0 | 8 |
| 48 | References for 4.4. Landolt-Börnstein - Group III Condensed Matter, 2002, , 346-351. | 0.0 | 0 |
| 49 | 4.4.4 Experimental determination of changes of surface stress due to adsorption - 4.4.5 Calculations of surface free energy and surface stress. Landolt-Börnstein - Group III Condensed Matter, 2002, , 312-319. | 0.0 | 0 |
| 50 | What does one learn from equilibrium shapes of two-dimensional islands on surfaces?. Surface Science, 2001, 471, 80-100. | 0.8 | 113 |
| 51 | A finite element analysis of the bending of crystalline plates due to anisotropic surface and film stress applied to magnetoelasticity. Journal of Magnetism and Magnetic Materials, 2001, 231, 74-84. | 1.0 | 36 |
| 52 | Experimental determination of step energies from island shape fluctuations: A comparison to the equilibrium shape method for Cu(100), Cu(111), and Ag(111). Physical Review B, 2001, 64, . | 1.1 | 59 |
| 53 | Bending of crystalline plates under the influence of surface stress " a finite element analysis. Surface Science, 2000, 446, 161-173. | 0.8 | 96 |
| 54 | Novel Method for the Experimental Determination of Step Energies. Physical Review Letters, 1999, 83, 3880-3883. | 2.9 | 57 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Interlayer Mass Transport and Quantum Confinement of Electronic States. <i>Physical Review Letters</i> , 1999, 82, 3101-3104. | 2.9 | 58 |
| 56 | Step dynamics on Cu (100) and Ag (111) electrodes in an aqueous electrolyte. <i>Electrochimica Acta</i> , 1999, 45, 527-536. | 2.6 | 35 |
| 57 | Stress in densely packed adsorbate layers and stress at the solid-liquid interface is the stress due to repulsive interactions between the adsorbed species?. <i>Electrochimica Acta</i> , 1999, 45, 575-581. | 2.6 | 25 |
| 58 | Step edge barrier controlled decay of multilayer islands on Cu(111). <i>Surface Science</i> , 1999, 431, 109-115. | 0.8 | 58 |
| 59 | Substrate surface phonons in the cases of saturated (1 $\bar{1}$ -1)H/Mo(110) and p(2 $\bar{1}$ -2)O/Mo(110): a critical comparison. <i>Surface Science</i> , 1998, 402-404, 496-501. | 0.8 | 11 |
| 60 | Decay of Cu adatom islands on Cu(111). <i>Surface Science</i> , 1998, 398, 37-48. | 0.8 | 80 |
| 61 | Activation energy for the decay of two-dimensional islands on Cu(100). <i>Physical Review B</i> , 1998, 58, R7556-R7559. | 1.1 | 34 |
| 62 | EELS study of the clean and hydrogen-covered Mo(110) surface. <i>Physical Review B</i> , 1997, 55, 10895-10904. | 1.1 | 54 |
| 63 | Stress Relief in Reconstruction. <i>Physical Review Letters</i> , 1997, 78, 4225-4228. | 2.9 | 147 |
| 64 | Surface Self-Diffusion by Vacancy Motion: Island Ripening on Cu(001). <i>Physical Review Letters</i> , 1997, 79, 2506-2509. | 2.9 | 144 |
| 65 | Potential-induced stress in the solid-liquid interface: Au(111) and Au(100) in an HClO ₄ electrolyte. <i>Surface Science</i> , 1997, 375, 107-119. | 0.8 | 107 |
| 66 | Step fluctuations on metals in contact with an electrolyte: a new access to dynamical processes at the solid/liquid interface. <i>Surface Science</i> , 1997, 384, 168-178. | 0.8 | 58 |
| 67 | The role of surface stress in reconstruction, epitaxial growth and stabilization of mesoscopic structures. <i>Surface Science Reports</i> , 1997, 29, 195-263. | 3.8 | 783 |
| 68 | CO on Ni(100): observation of a high-frequency IR band at 2200 cm ⁻¹ . <i>Surface Science</i> , 1996, 355, L331-L334. | 0.8 | 9 |
| 69 | Recent advances in electron energy loss spectroscopy of surface vibrations. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1996, 92, 4771. | 1.7 | 29 |
| 70 | Dynamical Processes at the Solid / Liquid Interface. <i>Materials Research Society Symposia Proceedings</i> , 1996, 451, 9. | 0.1 | 6 |
| 71 | Giant Surface Stress in Heteroepitaxial Films: Invalidation of a Classical Rule in Epitaxy. <i>Physical Review Letters</i> , 1996, 77, 127-130. | 2.9 | 91 |
| 72 | Site occupation of CO adsorbed on Ni(100) at high CO pressures. <i>Surface Science</i> , 1995, 330, L646-L650. | 0.8 | 17 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | The growth of cobalt films on vicinal copper surfaces. <i>Surface Science</i> , 1995, 336, 269-279. | 0.8 | 39 |
| 74 | Adsorbate-induced surface stress and surface reconstruction: oxygen, sulfur and carbon on Ni(111). <i>Surface Science</i> , 1995, 337, 183-189. | 0.8 | 47 |
| 75 | Hydrogen Covered W(110) Surface: A Hydrogen Liquid with a Propensity for One-Dimensional Order. <i>Physical Review Letters</i> , 1994, 73, 854-857. | 2.9 | 43 |
| 76 | Adsorbate-induced surface stress: CO on Ni(100) and Ni(111). <i>Surface Science</i> , 1994, 313, 209-214. | 0.8 | 33 |
| 77 | Electron energy loss spectroscopy: the vibration spectroscopy of surfaces. <i>Surface Science</i> , 1994, 299-300, 116-128. | 0.8 | 61 |
| 78 | Shear horizontal surface phonons on Ni(110). <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1993, 64-65, 739-745. | 0.8 | 6 |
| 79 | Electron energy loss spectroscopy with resolution below 1 meV. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1993, 64-65, 819-823. | 0.8 | 73 |
| 80 | Entropy-controlled site occupation of CO adsorbed on Ni(100). <i>Applied Physics A: Solids and Surfaces</i> , 1993, 57, 499-505. | 1.4 | 17 |
| 81 | Occupation of adsorption sites controlled by phonon entropy. <i>Physical Review Letters</i> , 1993, 71, 2078-2081. | 2.9 | 36 |
| 82 | Frizzed appearance of steps in tunnel microscopy on Cu(100) and vicinal Cu(11n) surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1992, 10, 2597-2599. | 0.9 | 39 |
| 83 | Magnetic live surface layers in Fe/Cu(100). <i>Physical Review Letters</i> , 1992, 69, 3831-3834. | 2.9 | 471 |
| 84 | Experimental determination of adsorbate-induced surface stress: Oxygen on Si(111) and Si(100). <i>Physical Review B</i> , 1991, 43, 4263-4267. | 1.1 | 115 |
| 85 | Electron Energy Loss Spectrometers. <i>Springer Series in Optical Sciences</i> , 1991, , . | 0.5 | 142 |
| 86 | Hydrogen adsorption and the adsorbate-induced Ni(110) reconstruction- an EELS study. <i>Surface Science</i> , 1989, 208, 113-135. | 0.8 | 87 |
| 87 | EELS study of the dynamics of clean Ni(100): Surface phonons and surface resonances. <i>Surface Science</i> , 1986, 171, 632-642. | 0.8 | 51 |
| 88 | Energy Dependence of Inelastic Electron Scattering Cross Section by Surface Vibrations: Experimental Measurement and Theoretical Interpretation. <i>Physical Review Letters</i> , 1985, 54, 1171-1174. | 2.9 | 103 |
| 89 | The bonding of water molecules to platinum surfaces. <i>Surface Science</i> , 1980, 91, 187-197. | 0.8 | 248 |
| 90 | The preexponential factor in desorption $\hat{\alpha}^{\text{CO}}$ on Ni(111). <i>Surface Science</i> , 1980, 92, 29-42. | 0.8 | 182 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 91 | CH Vibration Softening and the Dehydrogenation of Hydrocarbon Molecules on Ni(111) and Pt(111). Physical Review Letters, 1978, 40, 1044-1047. | 2.9 | 249 |
| 92 | Surface Sites of H on W(100). Physical Review Letters, 1976, 36, 1549-1551. | 2.9 | 114 |
| 93 | Optical Surface Phonons in Zinc Oxide Detected by Slow-Electron Spectroscopy. Physical Review Letters, 1970, 24, 1416-1418. | 2.9 | 342 |