

Florian Maier

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87
papers

4,711
citations

30
h-index

68
g-index

94
ext. papers

5,132
ext. citations

6.2
avg, IF

5.18
L-index

| # | Paper | IF | Citations |
|----|---|------|-----------|
| 87 | Origin of surface conductivity in diamond. <i>Physical Review Letters</i> , 2000 , 85, 3472-5 | 7.4 | 723 |
| 86 | Electron affinity of plasma-hydrogenated and chemically oxidized diamond (100) surfaces. <i>Physical Review B</i> , 2001 , 64, | 3.3 | 343 |
| 85 | Towards a molecular understanding of cation-anion interactions--probing the electronic structure of imidazolium ionic liquids by NMR spectroscopy, X-ray photoelectron spectroscopy and theoretical calculations. <i>Chemistry - A European Journal</i> , 2010 , 16, 9018-33 | 4.8 | 241 |
| 84 | Photoelectron spectroscopy of ionic liquid-based interfaces. <i>Chemical Reviews</i> , 2010 , 110, 5158-90 | 68.1 | 234 |
| 83 | Density and surface tension of ionic liquids. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 17025-36 | 3.4 | 187 |
| 82 | Interaction of Cobalt(II) Tetraarylporphyrins with a Ag(111) Surface Studied with Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 3090-3098 | 3.8 | 171 |
| 81 | Influence of different substituents on the surface composition of ionic liquids studied using ARXPS. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 2854-64 | 3.4 | 166 |
| 80 | Liquid/solid interface of ultrathin ionic liquid films: [C1C1Im][Tf2N] and [C8C1Im][Tf2N] on Au(111). <i>Langmuir</i> , 2011 , 27, 3662-71 | 4 | 159 |
| 79 | Influence of different anions on the surface composition of ionic liquids studied using ARXPS. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 8682-8 | 3.4 | 158 |
| 78 | Surface science and model catalysis with ionic liquid-modified materials. <i>Advanced Materials</i> , 2011 , 23, 2571-87 | 24 | 154 |
| 77 | Gallium-rich Pd-Ga phases as supported liquid metal catalysts. <i>Nature Chemistry</i> , 2017 , 9, 862-867 | 17.6 | 140 |
| 76 | Insights into the surface composition and enrichment effects of ionic liquids and ionic liquid mixtures. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 1905-15 | 3.6 | 127 |
| 75 | Physical vapor deposition of [EMIM][Tf2N]: a new approach to the modification of surface properties with ultrathin ionic liquid films. <i>ChemPhysChem</i> , 2008 , 9, 2185-90 | 3.2 | 120 |
| 74 | Surface characterization of functionalized imidazolium-based ionic liquids. <i>Langmuir</i> , 2008 , 24, 9500-7 | 4 | 112 |
| 73 | Surface enrichment and depletion effects of ions dissolved in an ionic liquid: an X-ray photoelectron spectroscopy study. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 7778-80 | 16.4 | 105 |
| 72 | High-resolution surface-sensitive C 1s core-level spectra of clean and hydrogen-terminated diamond (100) and (111) surfaces. <i>Physical Review B</i> , 1998 , 57, 12397-12409 | 3.3 | 105 |
| 71 | Carbon dioxide capture by an amine functionalized ionic liquid: fundamental differences of surface and bulk behavior. <i>Journal of the American Chemical Society</i> , 2014 , 136, 436-41 | 16.4 | 95 |

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| 70 | Surface Studies on the Ionic Liquid 1-Ethyl-3-Methylimidazolium Ethylsulfate Using X-Ray Photoelectron Spectroscopy (XPS). <i>Zeitschrift Fur Physikalische Chemie</i> , 2006 , 220, 1439-1453 | 3.1 | 95 |
| 69 | Photoinduced degradation of methylammonium lead triiodide perovskite semiconductors. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 15896-15903 | 13 | 92 |
| 68 | Diamond surface conductivity experiments and photoelectron spectroscopy. <i>Diamond and Related Materials</i> , 2001 , 10, 416-422 | 3.5 | 77 |
| 67 | Interfaces of ionic liquids and transition metal surfaces-adsorption, growth, and thermal reactions of ultrathin [C1C1Im][Tf2N] films on metallic and oxidised Ni(111) surfaces. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 5153-63 | 3.6 | 76 |
| 66 | At the ionic liquid metal interface: structure formation and temperature dependent behavior of an ionic liquid adlayer on Au(111). <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 17295-302 | 3.6 | 72 |
| 65 | Ionic liquid based model catalysis: interaction of [BMIM][Tf2N] with Pd nanoparticles supported on an ordered alumina film. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 10610-21 | 3.6 | 70 |
| 64 | Interfacial Behavior of Thin Ionic Liquid Films on Mica. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 5101-5111 | 3.8 | 52 |
| 63 | Few layer 2D pnictogens catalyze the alkylation of soft nucleophiles with esters. <i>Nature Communications</i> , 2019 , 10, 509 | 17.4 | 45 |
| 62 | Organic reactions in ionic liquids studied by in situ XPS. <i>ChemPhysChem</i> , 2012 , 13, 1725-35 | 3.2 | 41 |
| 61 | Electronic states of an ordered oxide on C-terminated 6HSiC. <i>Surface Science</i> , 1999 , 442, 531-542 | 1.8 | 40 |
| 60 | Chloroalkylsulfonate ionic liquids by ring opening of sultones with organic chloride salts. <i>Chemical Communications</i> , 2008 , 3867-9 | 5.8 | 38 |
| 59 | Strong and Tunable Spin-Orbit Coupling in a Two-Dimensional Hole Gas in Ionic-Liquid Gated Diamond Devices. <i>Nano Letters</i> , 2016 , 16, 3768-73 | 11.5 | 36 |
| 58 | The hydrogenated and bare diamond (110) surface: a combined LEED-, XPS-, and ARPES study. <i>Surface Science</i> , 1999 , 443, 177-185 | 1.8 | 35 |
| 57 | Influence of substituents and functional groups on the surface composition of ionic liquids. <i>Chemistry - A European Journal</i> , 2014 , 20, 3954-65 | 4.8 | 30 |
| 56 | Ligand effects on the surface composition of Rh-containing ionic liquid solutions used in hydroformylation catalysis. <i>Chemistry - A European Journal</i> , 2010 , 16, 12083-7 | 4.8 | 27 |
| 55 | Monitoring of liquid-phase organic reactions by photoelectron spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 2610-3 | 16.4 | 26 |
| 54 | Probing the Surface Tension of Ionic Liquids Using the Langmuir Principle. <i>Langmuir</i> , 2018 , 34, 4408-4416 | 4 | 23 |
| 53 | Thermally stable bis(trifluoromethylsulfonyl)imide salts and their mixtures. <i>New Journal of Chemistry</i> , 2016 , 40, 7157-7161 | 3.6 | 23 |

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| 52 | Interface of Ionic Liquids and Carbon: Ultrathin [C1C1Im][Tf2N] Films on Graphite and Graphene. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 28068-28076 | 3.8 | 23 |
| 51 | Electrospray ionization deposition of ultrathin ionic liquid films: [C8C1Im]Cl and [C8C1Im][Tf2N] on Au(111). <i>Langmuir</i> , 2014 , 30, 1063-71 | 4 | 20 |
| 50 | Chemical and (Photo)-Catalytical Transformations in Photonic Crystal Fibers. <i>ChemCatChem</i> , 2013 , 5, 641-650 | 5.2 | 19 |
| 49 | Dual analyzer system for surface analysis dedicated for angle-resolved photoelectron spectroscopy at liquid surfaces and interfaces. <i>Review of Scientific Instruments</i> , 2016 , 87, 045105 | 1.7 | 19 |
| 48 | Time-dependent changes in the growth of ultrathin ionic liquid films on Ag(111). <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 12929-12938 | 3.6 | 18 |
| 47 | Geometry of the (211) reconstruction of diamond (111). <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 3085-3092 | 1.8 | 18 |
| 46 | Surface doping: a special feature of diamond. <i>Journal of Physics Condensed Matter</i> , 2001 , 13, 8979-8987 | 1.8 | 17 |
| 45 | Redox chemistry, solubility, and surface distribution of Pt(II) and Pt(IV) complexes dissolved in ionic liquids. <i>Journal of Molecular Liquids</i> , 2014 , 192, 103-113 | 6 | 16 |
| 44 | Anion Exchange at the Liquid/Solid Interface of Ultrathin Ionic Liquid Films on Ag(111). <i>ChemPhysChem</i> , 2018 , 19, 2978-2984 | 3.2 | 16 |
| 43 | Switching adsorption and growth behavior of ultrathin [CCIm][OTf] films on Au(111) by Pd deposition. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 25143-25150 | 3.6 | 15 |
| 42 | Cation Exchange at the Interfaces of Ultrathin Films of Fluorous Ionic Liquids on Ag(111). <i>Langmuir</i> , 2019 , 35, 398-405 | 4 | 15 |
| 41 | Perspective: Chemical reactions in ionic liquids monitored through the gas (vacuum)/liquid interface. <i>Journal of Chemical Physics</i> , 2017 , 146, 170901 | 3.9 | 14 |
| 40 | Cyclic thiuronium ionic liquids: physicochemical properties and their electronic structure probed by X-ray induced photoelectron spectroscopy. <i>Chemistry - A European Journal</i> , 2012 , 18, 8288-91 | 4.8 | 14 |
| 39 | Probing a gas/liquid acid-base reaction by X-ray photoelectron spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 8904-7 | 16.4 | 14 |
| 38 | Surface Enrichment and Depletion Effects of Ions Dissolved in an Ionic Liquid: An X-ray Photoelectron Spectroscopy Study. <i>Angewandte Chemie</i> , 2006 , 118, 7942-7944 | 3.6 | 14 |
| 37 | Ultrathin ionic liquid films on metal surfaces: adsorption, growth, stability and exchange phenomena. <i>Advances in Physics: X</i> , 2020 , 5, 1761266 | 5.1 | 14 |
| 36 | Surface Enrichment in Equimolar Mixtures of Non-Functionalized and Functionalized Imidazolium-Based Ionic Liquids. <i>ChemPhysChem</i> , 2018 , 19, 1733-1745 | 3.2 | 13 |
| 35 | Vacuum Surface Science Meets Heterogeneous Catalysis: Dehydrogenation of a Liquid Organic Hydrogen Carrier in the Liquid State. <i>ChemPhysChem</i> , 2015 , 16, 1873-9 | 3.2 | 13 |

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| 34 | Temperature-dependent surface-enrichment effects of imidazolium-based ionic liquids. <i>ChemPhysChem</i> , 2013 , 14, 3726-30 | 3.2 | 13 |
| 33 | Capture of carbon dioxide at the gas-liquid interface elucidated by surface science approaches. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 10133-4 | 16.4 | 13 |
| 32 | Surface-Induced Changes in the Thermochromic Transformation of an Ionic Liquid Cobalt Thiocyanate Complex. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 1137-1141 | 6.4 | 12 |
| 31 | Surface enrichment of Pt in Ga ₂ O ₃ films grown on liquid Pt/Ga alloys. <i>Surface Science</i> , 2016 , 651, 16-21 | 1.8 | 12 |
| 30 | Atomic Force and Scanning Tunneling Microscopy of Ordered Ionic Liquid Wetting Layers from 110 K up to Room Temperature. <i>ACS Nano</i> , 2020 , 14, 9000-9010 | 16.7 | 10 |
| 29 | Methylated [(arene)(1,3-cyclohexadiene)Ru(0)] complexes as low-melting MOCVD precursor complexes with a controlled follow-up chemistry of the ligands. <i>Journal of Materials Chemistry</i> , 2011 , 21, 3014 | | 10 |
| 28 | Low melting Li/K/Cs acetate salt mixtures as new ionic media for catalytic applications--first physico-chemical characterization. <i>Dalton Transactions</i> , 2012 , 41, 14433-8 | 4.3 | 9 |
| 27 | Resonant magnetic scattering study of the 50% Ho-Tb alloy. <i>Journal of Magnetism and Magnetic Materials</i> , 1995 , 140-144, 753-754 | 2.8 | 9 |
| 26 | Monitoring of Liquid-Phase Organic Reactions by Photoelectron Spectroscopy. <i>Angewandte Chemie</i> , 2012 , 124, 2664-2667 | 3.6 | 8 |
| 25 | Methylated [(benzene)(1,3-butadiene)Ru(0)] Derivatives as Novel MOCVD Precursors with Favorable Properties. <i>Chemical Vapor Deposition</i> , 2011 , 17, 15-21 | | 8 |
| 24 | Spectroscopic investigations of diamond/hydrogen/metal and diamond/metal interfaces. <i>Diamond and Related Materials</i> , 2001 , 10, 506-510 | 3.5 | 8 |
| 23 | Reactions of a Polyhalide Ionic Liquid with Copper, Silver, and Gold. <i>ChemistryOpen</i> , 2019 , 8, 15-22 | 2.3 | 8 |
| 22 | Interface Properties and Physicochemical Characterization of the Low-Temperature Molten Salt Li/K/Cs Acetate. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 22939-22946 | 3.8 | 7 |
| 21 | Temperature-Dependent Surface Enrichment Effects in Binary Mixtures of Fluorinated and Non-Fluorinated Ionic Liquids. <i>Chemistry - A European Journal</i> , 2020 , 26, 1117-1126 | 4.8 | 7 |
| 20 | Surface Tension and Viscosity of Binary Mixtures of the Fluorinated and Non-fluorinated Ionic Liquids [PFBMIm][PF6] and [C4C1Im][PF6] by the Pendant Drop Method and Surface Light Scattering. <i>International Journal of Thermophysics</i> , 2020 , 41, 1 | 2.1 | 6 |
| 19 | On the Dynamic Interaction of n-Butane with Imidazolium-Based Ionic Liquids. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 14429-14433 | 16.4 | 5 |
| 18 | Potential Screening at Electrode/Ionic Liquid Interfaces from In Situ X-ray Photoelectron Spectroscopy. <i>ChemistryOpen</i> , 2019 , 8, 1365-1368 | 2.3 | 5 |
| 17 | Maier et al. Reply:. <i>Physical Review Letters</i> , 2001 , 87, | 7.4 | 5 |

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| 16 | Growth of Multilayers of Ionic Liquids on Au(111) Investigated by Atomic Force Microscopy in Ultrahigh Vacuum. <i>Langmuir</i> , 2020 , 36, 13670-13681 | 4 | 5 |
| 15 | Pronounced surface enrichment of fluorinated ionic liquids in binary mixtures with methoxy-functionalized ionic liquids. <i>Journal of Molecular Liquids</i> , 2020 , 305, 112783 | 6 | 4 |
| 14 | Stability and Exchange Processes in Ionic Liquid/Porphyrin Composite Films on Metal Surfaces. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 29708-29721 | 3.8 | 4 |
| 13 | Enrichment effects of ionic liquid mixtures at polarized electrode interfaces monitored by potential screening. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 10756-10762 | 3.6 | 3 |
| 12 | Surface behavior of low-temperature molten salt mixtures during the transition from liquid to solid. <i>Journal of Molecular Liquids</i> , 2019 , 275, 290-296 | 6 | 2 |
| 11 | Die dynamische Wechselwirkung von n-Butan mit Imidazolium-basierten ionischen Flüssigkeiten. <i>Angewandte Chemie</i> , 2020 , 132, 14536-14541 | 3.6 | 1 |
| 10 | Probing a Gas/Liquid Acid-Base Reaction by X-ray Photoelectron Spectroscopy. <i>Angewandte Chemie</i> , 2013 , 125, 9072-9075 | 3.6 | 1 |
| 9 | Der Kohlendioxid-Abscheidung an der Gas-flüssig-Grenzfläche auf der Spur. <i>Angewandte Chemie</i> , 2011 , 123, 10315-10316 | 3.6 | 1 |
| 8 | A simple design for a helium scattering apparatus. <i>Surface Science</i> , 1997 , 377-379, 1101-1105 | 1.8 | 1 |
| 7 | On the adsorption of n-butane on alkyl imidazolium ionic liquids with different anions using a new molecular beam setup. <i>Journal of Chemical Physics</i> , 2020 , 153, 214706 | 3.9 | 1 |
| 6 | Time- and Temperature-Dependent Growth Behavior of Ionic Liquids on Au(111) Studied by Atomic Force Microscopy in Ultrahigh Vacuum. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 20439-20449 | 3.8 | 1 |
| 5 | B/N-doped carbon sheets from a new ionic liquid with excellent sorption properties for methylene blue. <i>Journal of Ionic Liquids</i> , 2021 , 1, 100004 | | 0 |
| 4 | Adsorption, Wetting, Growth, and Thermal Stability of the Protic Ionic Liquid Diethylmethylammonium Trifluoromethanesulfonate on Ag(111) and Au(111). <i>Langmuir</i> , 2021 , 37, 11554-11560 | 4 | 0 |
| 3 | The Effect of Ambient Conditions on the Potential Screening at Ionic Liquid Electrode Interfaces. <i>Journal of Ionic Liquids</i> , 2022 , 2, 100019 | | |
| 2 | Ionic liquids at interfaces: general discussion. <i>Faraday Discussions</i> , 2018 , 206, 549-586 | 3.6 | |
| 1 | n-Butane, iso-Butane and 1-Butene Adsorption on Imidazolium-Based Ionic Liquids Studied with Molecular Beam Techniques. <i>Chemistry - A European Journal</i> , 2021 , 27, 17059-17065 | 4.8 | |