# Florian Maier

List of Publications by Year
in descending order



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|---|---|---|---|
| 85 papers | 5,575 citations | 136740 32 h-index | 76769 74 g-index |
| 94 all docs | 94 docs citations | 94 times ranked | 5088 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Origin of Surface Conductivity in Diamond. Physical Review Letters, 2000, 85, 3472-3475. | 2.9 | 820 |
| 2 | Electron affinity of plasma-hydrogenated and chemically oxidized diamond (100) surfaces. Physical Review B, 2001, 64, . | 1.1 | 400 |
| 3 | Towards a Molecular Understanding of Cationâ€“Anion Interactionsâ€”Probing the Electronic Structure of Imidazolium Ionic Liquids by NMR Spectroscopy, Xâ€ray Photoelectron Spectroscopy and Theoretical Calculations. Chemistry - A European Journal, 2010, 16, 9018-9033. | 1.7 | 264 |
| 4 | Photoelectron Spectroscopy of Ionic Liquid-Based Interfaces. Chemical Reviews, 2010, 110, 5158-5190. | 23.0 | 261 |
| 5 | Gallium-rich Pdâ€“Ga phases as supported liquid metal catalysts. Nature Chemistry, 2017, 9, 862-867. | 6.6 | 234 |
| 6 | Density and Surface Tension of Ionic Liquids. Journal of Physical Chemistry B, 2010, 114, 17025-17036. | 1.2 | 218 |
| 7 | Interaction of Cobalt(II) Tetraarylporphyrins with a Ag(111) Surface Studied with Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2007, 111, 3090-3098. | 1.5 | 188 |
| 8 | Liquid/Solid Interface of Ultrathin Ionic Liquid Films: [C<sub>1</sub>C<sub>1</sub>Im][Tf<sub>2</sub>N] and [C<sub>8</sub>C<sub>1</sub>Im][Tf<sub>2</sub>N] on Au(111). Langmuir, 2011, 27, 3662-3671. | 1.6 | 186 |
| 9 | Surface Science and Model Catalysis with Ionic Liquidâ€Modified Materials. Advanced Materials, 2011, 23, 2571-2587. | 11.1 | 181 |
| 10 | Influence of Different Substituents on the Surface Composition of Ionic Liquids Studied Using ARXPS. Journal of Physical Chemistry B, 2009, 113, 2854-2864. | 1.2 | 177 |
| 11 | Influence of Different Anions on the Surface Composition of Ionic Liquids Studied Using ARXPS. Journal of Physical Chemistry B, 2009, 113, 8682-8688. | 1.2 | 176 |
| 12 | Insights into the surface composition and enrichment effects of ionic liquids and ionic liquid mixtures. Physical Chemistry Chemical Physics, 2010, 12, 1905. | 1.3 | 143 |
| 13 | Physical Vapor Deposition of [EMIM][Tf<sub>2</sub>N]: A New Approach to the Modification of Surface Properties with Ultrathin Ionic Liquid Films. ChemPhysChem, 2008, 9, 2185-2190. | 1.0 | 140 |
| 14 | Surface Characterization of Functionalized Imidazolium-Based Ionic Liquids. Langmuir, 2008, 24, 9500-9507. | 1.6 | 126 |
| 15 | High-resolution surface-sensitive C1score-level spectra of clean and hydrogen-terminated diamond (100) and (111) surfaces. Physical Review B, 1998, 57, 12397-12409. | 1.1 | 121 |
| 16 | Photoinduced degradation of methylammonium lead triiodide perovskite semiconductors. Journal of Materials Chemistry A, 2016, 4, 15896-15903. | 5.2 | 119 |
| 17 | Surface Enrichment and Depletion Effects of Ions Dissolved in an Ionic Liquid: An X-ray Photoelectron Spectroscopy Study. Angewandte Chemie - International Edition, 2006, 45, 7778-7780. | 7.2 | 117 |
| 18 | Carbon Dioxide Capture by an Amine Functionalized Ionic Liquid: Fundamental Differences of Surface and Bulk Behavior. Journal of the American Chemical Society, 2014, 136, 436-441. | 6.6 | 109 |

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|---|---|---|---|
| 19 | Surface Studies on the Ionic Liquid 1-Ethyl-3-Methylimidazolium Ethylsulfate Using X-Ray Photoelectron Spectroscopy (XPS). Zeitschrift Fur Physikalische Chemie, 2006, 220, 1439-1453. | 1.4 | 101 |
| 20 | Interfaces of ionic liquids and transition metal surfacesâ€"adsorption, growth, and thermal reactions of ultrathin [C1C1Im][Tf2N] films on metallic and oxidised Ni(111) surfaces. Physical Chemistry Chemical Physics, 2012, 14, 5153. | 1.3 | 87 |
| 21 | At the ionic liquid\|metal interface: structure formation and temperature dependent behavior of an ionic liquid adlayer on Au(111). Physical Chemistry Chemical Physics, 2013, 15, 17295. | 1.3 | 82 |
| 22 | Diamond surface conductivity experiments and photoelectron spectroscopy. Diamond and Related Materials, 2001, 10, 416-422. | 1.8 | 79 |
| 23 | Ionic liquid based model catalysis: interaction of [BMIM][Tf2N] with Pd nanoparticles supported on an ordered alumina film. Physical Chemistry Chemical Physics, 2010, 12, 10610. | 1.3 | 77 |
| 24 | Few layer 2D pnictogens catalyze the alkylation of soft nucleophiles with esters. Nature Communications, 2019, 10, 509. | 5.8 | 61 |
| 25 | Interfacial Behavior of Thin Ionic Liquid Films on Mica. Journal of Physical Chemistry C, 2013, 117, 5101-5111. | 1.5 | 60 |
| 26 | Organic Reactions in Ionic Liquids Studied by in Situ XPS. ChemPhysChem, 2012, 13, 1725-1735. | 1.0 | 50 |
| 27 | Strong and Tunable Spinâ€"Orbit Coupling in a Two-Dimensional Hole Gas in Ionic-Liquid Gated Diamond Devices. Nano Letters, 2016, 16, 3768-3773. | 4.5 | 45 |
| 28 | Electronic states of an ordered oxide on C-terminated 6Hâ€"SiC. Surface Science, 1999, 442, 531-542. | 0.8 | 44 |
| 29 | Chloroalkylsulfonate ionic liquids by ring opening of sultones with organic chloride salts. Chemical Communications, 2008, , 3867. | 2.2 | 39 |
| 30 | The hydrogenated and bare diamond (110) surface: a combined LEED-, XPS-, and ARPES study. Surface Science, 1999, 443, 177-185. | 0.8 | 37 |
| 31 | Influence of Substituents and Functional Groups on the Surface Composition of Ionic Liquids. Chemistry - A European Journal, 2014, 20, 3954-3965. | 1.7 | 37 |
| 32 | Ligand Effects on the Surface Composition of Rhâ€Containing Ionic Liquid Solutions Used in Hydroformylation Catalysis. Chemistry - A European Journal, 2010, 16, 12083-12087. | 1.7 | 34 |
| 33 | Probing the Surface Tension of Ionic Liquids Using the Langmuir Principle. Langmuir, 2018, 34, 4408-4416. | 1.6 | 31 |
| 34 | Chemical and (Photo)â€Catalytical Transformations in Photonic Crystal Fibers. ChemCatChem, 2013, 5, 641-650. | 1.8 | 30 |
| 35 | Interface of Ionic Liquids and Carbon: Ultrathin [C<sub>1</sub>C<sub>1</sub>Im][Tf<sub>2</sub>N] Films on Graphite and Graphene. Journal of Physical Chemistry C, 2015, 119, 28068-28076. | 1.5 | 30 |
| 36 | Dual analyzer system for surface analysis dedicated for angle-resolved photoelectron spectroscopy at liquid surfaces and interfaces. Review of Scientific Instruments, 2016, 87, 045105. | 0.6 | 30 |

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| 37 | Time-dependent changes in the growth of ultrathin ionic liquid films on Ag(111). Physical Chemistry Chemical Physics, 2018, 20, 12929-12938. | 1.3 | 29 |
| 38 | Ultrathin ionic liquid films on metal surfaces: adsorption, growth, stability and exchange phenomena. Advances in Physics: X, 2020, 5, 1761266. | 1.5 | 27 |
| 39 | Monitoring of Liquidâ€Phase Organic Reactions by Photoelectron Spectroscopy. Angewandte Chemie - International Edition, 2012, 51, 2610-2613. | 7.2 | 26 |
| 40 | Thermally stable bis(trifluoromethylsulfonyl)imide salts and their mixtures. New Journal of Chemistry, 2016, 40, 7157-7161. | 1.4 | 25 |
| 41 | Electrospray Ionization Deposition of Ultrathin Ionic Liquid Films: [C<sub>8</sub>C<sub>1</sub>Im]Cl and [C<sub>8</sub>C<sub>1</sub>Im][Tf<sub>2</sub>N] on Au(111). Langmuir, 2014, 30, 1063-1071. | 1.6 | 24 |
| 42 | Anion Exchange at the Liquid/Solid Interface of Ultrathin Ionic Liquid Films on Ag(111). ChemPhysChem, 2018, 19, 2978-2984. | 1.0 | 23 |
| 43 | Geometry of the (2Ã—1) reconstruction of diamond (111). Journal of Physics Condensed Matter, 2002, 14, 3085-3092. | 0.7 | 22 |
| 44 | Redox chemistry, solubility, and surface distribution of Pt(II) and Pt(IV) complexes dissolved in ionic liquids. Journal of Molecular Liquids, 2014, 192, 103-113. | 2.3 | 22 |
| 45 | Atomic Force and Scanning Tunneling Microscopy of Ordered Ionic Liquid Wetting Layers from 110 K up to Room Temperature. ACS Nano, 2020, 14, 9000-9010. | 7.3 | 21 |
| 46 | Surface Enrichment in Equimolar Mixtures of Nonâ€Functionalized and Functionalized Imidazoliumâ€Based Ionic Liquids. ChemPhysChem, 2018, 19, 1733-1745. | 1.0 | 20 |
| 47 | Surface doping: a special feature of diamond. Journal of Physics Condensed Matter, 2001, 13, 8979-8987. | 0.7 | 19 |
| 48 | Switching adsorption and growth behavior of ultrathin [C<sub>2</sub>C<sub>1</sub>Im][OTf] films on Au(111) by Pd deposition. Physical Chemistry Chemical Physics, 2016, 18, 25143-25150. | 1.3 | 19 |
| 49 | Surface enrichment of Pt in Ga2O3 films grown on liquid Pt/Ga alloys. Surface Science, 2016, 651, 16-21. | 0.8 | 18 |
| 50 | Perspective: Chemical reactions in ionic liquids monitored through the gas (vacuum)/liquid interface. Journal of Chemical Physics, 2017, 146, 170901. | 1.2 | 18 |
| 51 | Cation Exchange at the Interfaces of Ultrathin Films of Fluorous Ionic Liquids on Ag(111). Langmuir, 2019, 35, 398-405. | 1.6 | 18 |
| 52 | Temperatureâ€Dependent Surface Enrichment Effects in Binary Mixtures of Fluorinated and Nonâ€Fluorinated Ionic Liquids. Chemistry - A European Journal, 2020, 26, 1117-1126. | 1.7 | 17 |
| 53 | Growth of Multilayers of Ionic Liquids on Au(111) Investigated by Atomic Force Microscopy in Ultrahigh Vacuum. Langmuir, 2020, 36, 13670-13681. | 1.6 | 17 |
| 54 | 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. International Journal of Thermophysics, 2020, 41, 1. | 1.0 | 17 |

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| 55 | Surface-Induced Changes in the Thermochromic Transformation of an Ionic Liquid Cobalt Thiocyanate Complex. Journal of Physical Chemistry Letters, 2017, 8, 1137-1141. | 2.1 | 16 |
| 56 | Cyclic Thiouronium Ionic Liquids: Physicochemical Properties and their Electronic Structure Probed by Xâ€Ray Induced Photoelectron Spectroscopy. Chemistry - A European Journal, 2012, 18, 8288-8291. | 1.7 | 15 |
| 57 | Probing a Gas/Liquid Acidâ€“Base Reaction by Xâ€ray Photoelectron Spectroscopy. Angewandte Chemie - International Edition, 2013, 52, 8904-8907. | 7.2 | 15 |
| 58 | Temperatureâ€Dependent Surfaceâ€Enrichment Effects of Imidazoliumâ€Based Ionic Liquids. ChemPhysChem, 2013, 14, 3726-3730. | 1.0 | 15 |
| 59 | Reactions of a Polyhalide Ionic Liquid with Copper, Silver, and Gold. ChemistryOpen, 2019, 8, 15-22. | 0.9 | 15 |
| 60 | Capture of Carbon Dioxide at the Gasâ€“Liquid Interface Elucidated by Surface Science Approaches. Angewandte Chemie - International Edition, 2011, 50, 10133-10134. | 7.2 | 13 |
| 61 | Vacuum Surface Science Meets Heterogeneous Catalysis: Dehydrogenation of a Liquid Organic Hydrogen Carrier in the Liquid State. ChemPhysChem, 2015, 16, 1873-1879. | 1.0 | 13 |
| 62 | Spectroscopic investigations of diamond/hydrogen/metal and diamond/metal interfaces. Diamond and Related Materials, 2001, 10, 506-510. | 1.8 | 11 |
| 63 | Resonant magnetic scattering study of the 50% Ho-Tb alloy. Journal of Magnetism and Magnetic Materials, 1995, 140-144, 753-754. | 1.0 | 10 |
| 64 | Methylated [(arene)(1,3-cyclohexadiene)Ru(0)] complexes as low-melting MOCVD precursor complexes with a controlled follow-up chemistry of the ligands. Journal of Materials Chemistry, 2011, 21, 3014. | 6.7 | 10 |
| 65 | Low melting Li/K/Cs acetate salt mixtures as new ionic media for catalytic applications â€“ first physico-chemical characterization. Dalton Transactions, 2012, 41, 14433. | 1.6 | 10 |
| 66 | Pronounced surface enrichment of fluorinated ionic liquids in binary mixtures with methoxy-functionalized ionic liquids. Journal of Molecular Liquids, 2020, 305, 112783. | 2.3 | 10 |
| 67 | Time- and Temperature-Dependent Growth Behavior of Ionic Liquids on Au(111) Studied by Atomic Force Microscopy in Ultrahigh Vacuum. Journal of Physical Chemistry C, 2021, 125, 20439-20449. | 1.5 | 10 |
| 68 | Methylated [(benzene)(1,3â€butadiene)Ru<sup>0</sup>] Derivatives as Novel MOCVD Precursors with Favorable Properties. Chemical Vapor Deposition, 2011, 17, 15-21. | 1.4 | 8 |
| 69 | Interface Properties and Physicochemical Characterization of the Low-Temperature Molten Salt Li/K/Cs Acetate. Journal of Physical Chemistry C, 2013, 117, 22939-22946. | 1.5 | 7 |
| 70 | Stability and Exchange Processes in Ionic Liquid/Porphyrin Composite Films on Metal Surfaces. Journal of Physical Chemistry C, 2019, 123, 29708-29721. | 1.5 | 7 |
| 71 | Potential Screening at Electrode/Ionic Liquid Interfaces from In Situ Xâ€ray Photoelectron Spectroscopy. ChemistryOpen, 2019, 8, 1365-1368. | 0.9 | 6 |
| 72 | Enrichment effects of ionic liquid mixtures at polarized electrode interfaces monitored by potential screening. Physical Chemistry Chemical Physics, 2021, 23, 10756-10762. | 1.3 | 6 |

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| 73 | Maieret al.Reply:. Physical Review Letters, 2001, 87, . | 2.9 | 5 |
| 74 | On the Dynamic Interaction of nâ€Butane with Imidazoliumâ€Based Ionic Liquids. Angewandte Chemie - International Edition, 2020, 59, 14429-14433. | 7.2 | 5 |
| 75 | Adsorption, Wetting, Growth, and Thermal Stability of the Protic Ionic Liquid Diethylmethylammonium Trifluoromethanesulfonate on Ag(111) and Au(111). Langmuir, 2021, 37, 11552-11560. | 1.6 | 5 |
| 76 | Surface behavior of low-temperature molten salt mixtures during the transition from liquid to solid. Journal of Molecular Liquids, 2019, 275, 290-296. | 2.3 | 3 |
| 77 | B/N-doped carbon sheets from a new ionic liquid with excellent sorption properties for methylene blue. Journal of Ionic Liquids, 2021, 1, 100004. | 1.0 | 3 |
| 78 | nâ€Butane, isoâ€Butane and 1â€Butene Adsorption on Imidazoliumâ€Based Ionic Liquids Studied with Molecular Beam Techniques. Chemistry - A European Journal, 2021, 27, 17059-17065. | 1.7 | 3 |
| 79 | Oxygen-rich tetrahedral surface phase on high-temperature rutile <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">V</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mn>1 mathvariant="normal">T</mml:mi></mml:msub></mml:mrow></mml:math> single crystals. Physical Review Materials, 2021, 5, . | 0.9 | 3 |
| 80 | On the adsorption of n-butane on alkyl imidazolium ionic liquids with different anions using a new molecular beam setup. Journal of Chemical Physics, 2020, 153, 214706. | 1.2 | 2 |
| 81 | A simple design for a helium scattering apparatus. Surface Science, 1997, 377-379, 1101-1105. | 0.8 | 1 |
| 82 | Die dynamische Wechselwirkung von n â€Butan mit Imidazoliumâ€basierten ionischen FlÃ¼ssigkeiten. Angewandte Chemie, 2020, 132, 14536-14541. | 1.6 | 1 |
| 83 | The Effect of Ambient Conditions on the Potential Screening at Ionic Liquid â€“ Electrode Interfaces. Journal of Ionic Liquids, 2022, 2, 100019. | 1.0 | 1 |
| 84 | Onâ€Surface Metathesis of an Ionic Liquid on Ag(111). Chemistry - A European Journal, 2022, , . | 1.7 | 1 |
| 85 | Ionic liquids at interfaces: general discussion. Faraday Discussions, 2018, 206, 549-586. | 1.6 | 0 |