Frank Endres

List of Publications by Year
in descending order

102 papers	10,533 citations	101543 36 h-index	34986 98 g-index
118 all docs	118 docs citations	118 times ranked	10117 citing authors

#	Article	IF	Citations
1	Ionic-liquid materials for the electrochemical challenges of the future. Nature Materials, 2009, 8, 621-629.	27.5	4,067
2	Air and water stable ionic liquids in physical chemistry. Physical Chemistry Chemical Physics, 2006, 8, 2101.	2.8	1,054
3	Ionic Liquids: Solvents for the Electrodeposition of Metals and Semiconductors. ChemPhysChem, 2002, 3, 144-154.	2.1	642
4	A Prussian Blue/Zinc Secondary Battery with a Bio-Ionic Liquidâ€“Water Mixture as Electrolyte. ACS Applied Materials & Interfaces, 2016, 8, 12158-12164.	8.0	367
5	Double Layer Structure of Ionic Liquids at the Au(111) Electrode Interface: An Atomic Force Microscopy Investigation. Journal of Physical Chemistry C, 2011, 115, 6855-6863.	3.1	336
6	AFM and STM Studies on the Surface Interaction of [BMP]TFSA and [EMIm]TFSA Ionic Liquids with Au(111). Journal of Physical Chemistry C, 2009, 113, 13266-13272.	3.1	305
7	Do solvation layers of ionic liquids influence electrochemical reactions?. Physical Chemistry Chemical Physics, 2010, 12, 1724.	2.8	240
8	An in situ STM/AFM and impedance spectroscopy study of the extremely pure 1-butyl-1-methylpyrrolidinium tris(pentafluoroethyl)trifluorophosphate/Au(111) interface: potential dependent solvation layers and the herringbone reconstruction. Physical Chemistry Chemical Physics, 2011, 13, 6849.	2.8	224
9	Dendriteâ€Free Nanocrystalline Zinc Electrodeposition from an Ionic Liquid Containing Nickel Triflate for Rechargeable Znâ€Based Batteries. Angewandte Chemie - International Edition, 2016, 55, 2889-2893.	13.8	210
10	The interface ionic liquid(s)/electrode(s): In situSTM and AFM measurements. Faraday Discussions, 2012, 154, 221-233.	3.2	176
11	Effect of alkyl chain length and anion species on the interfacial nanostructure of ionic liquids at the Au(111)â€“ionic liquid interface as a function of potential. Physical Chemistry Chemical Physics, 2013, 15, 14624.	2.8	163
12	Nanostructure of the Ionic Liquidâ€“Graphite Stern Layer. ACS Nano, 2015, 9, 7608-7620.	14.6	156
13	New insights into the interface between a single-crystalline metal electrode and an extremely pure ionic liquid: slow interfacial processes and the influence of temperature on interfacial dynamics. Physical Chemistry Chemical Physics, 2012, 14, 5090.	2.8	147
14	Structure and dynamics of the interfacial layer between ionic liquids and electrode materials. Journal of Molecular Liquids, 2014, 192, 44-54.	4.9	133
15	Bio-degradable zinc-ion battery based on a prussian blue analogue cathode and a bio-ionic liquid-based electrolyte. Journal of Solid State Electrochemistry, 2017, 21, 2021-2027.	2.5	105
16	Influence of Water on the Electrified Ionic Liquid/Solid Interface: A Direct Observation of the Transition from a Multilayered Structure to a Double-Layer Structure. Journal of Physical Chemistry C, 2016, 120, 9341-9349.	3.1	89
17	Preparation of WO₃ Films with Controllable Crystallinity for Improved Near-Infrared Electrochromic Performances. ACS Sustainable Chemistry and Engineering, 2020, 8, 11658-11666.	6.7	82
18	Nanoscale electrodeposition of germanium on Au(111) from an ionic liquid: an in situ STM study of phase formation. Physical Chemistry Chemical Physics, 2002, 4, 1640-1648.	2.8	79

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19	A battery-supercapacitor hybrid device composed of metallic zinc, a biodegradable ionic liquid electrolyte and graphite. Journal of Solid State Electrochemistry, 2018, 22, 91-101.	2.5	75
20	On the electrodeposition of tantalum from three different ionic liquids with the bis(trifluoromethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.8	71
21	Effect of dissolved LiCl on the ionic liquidâ€“Au(111) electrical double layer structure. Chemical Communications, 2012, 48, 10246.	4.1	70
22	Nanoscale electrodeposition of germanium on Au(111) from an ionic liquid: an in situ STM study of phase formation. Physical Chemistry Chemical Physics, 2002, 4, 1649-1657.	2.8	69
23	Electrodeposition of stable and narrowly dispersed germanium nanoclusters from an ionic liquid. Chemical Communications, 2002, , 892-893.	4.1	67
24	Combined STM, AFM, and DFT Study of the Highly Ordered Pyrolytic Graphite/1-Octyl-3-methyl-imidazolium Bis(trifluoromethylsulfonyl)imide Interface. Journal of Physical Chemistry C, 2014, 118, 10833-10843.	3.1	65
25	Suppressing the dendritic growth of zinc in an ionic liquid containing cationic and anionic zinc complexes for battery applications. Dalton Transactions, 2016, 45, 8089-8098.	3.3	65
26	Anion Effects on the Solid/Ionic Liquid Interface and the Electrodeposition of Zinc. Journal of Physical Chemistry C, 2016, 120, 20224-20231.	3.1	62
27	A Review on the Electroless Deposition of Functional Materials in Ionic Liquids for Batteries and Catalysis. Frontiers in Chemistry, 2019, 7, 85.	3.6	57
28	Raman and FTIR Spectroscopic Studies of 1â€Ethylâ€3â€methylimidazolium Trifluoromethylsulfonate, its Mixtures with Water and the Solvation of Zinc Ions. ChemPhysChem, 2015, 16, 970-977.	2.1	55
29	LiTFSI in 1-butyl-1-methylpyrrolidinium bis(fluorosulfonyl)amide: a possible electrolyte for ionic liquid based lithium ion batteries. Physical Chemistry Chemical Physics, 2015, 17, 11161-11164.	2.8	49
30	Spectroscopic characterization of the interaction of lithium with thin films of the ionic liquid 1-octyl-3-methylimidazolium bis(trifluoromethylsulfonyl)amide. Physical Chemistry Chemical Physics, 2014, 16, 25969-25977.	2.8	48
31	In Situ Atomic Force Microscopic Studies of the Interfacial Multilayer Nanostructure of LiTFSIâ€“[Py_{1,Â4}]TFSI on Au(111): Influence of Li⁺ Ion Concentration on the Au(111)/IL Interface. Journal of Physical Chemistry C, 2015, 119, 16734-16742.	3.1	48
32	[Py_{1,4}]FSI-NaFSI-Based Ionic Liquid Electrolyte for Sodium Batteries: Na⁺ Solvation and Interfacial Nanostructure on Au(111). Journal of Physical Chemistry C, 2016, 120, 14736-14741.	3.1	45
33	Reviewâ€”Electrodeposition of Nanostructured Materials from Aqueous, Organic and Ionic Liquid Electrolytes for Li-Ion and Na-Ion Batteries: A Comparative Review. Journal of the Electrochemical Society, 2017, 164, D597-D612.	2.9	41
34	Monochromatic X-ray Photoelectron Spectroscopy Study of Three Different Ionic Liquids in Interaction with Lithium-Decorated Copper Surfaces. Journal of Physical Chemistry C, 2017, 121, 2675-2682.	3.1	39
35	Influence of Polar Organic Solvents in an Ionic Liquid Containing Lithium Bis(fluorosulfonyl)amide: Effect on the Cationâ€“Anion Interaction, Lithium Ion Battery Performance, and Solid Electrolyte Interphase. ACS Applied Materials & Interfaces, 2016, 8, 34143-34150.	8.0	38
36	Mechanism of Zn-Ion Intercalation/Deintercalation in a Znâ€“Polypyrrole Secondary Battery in Aqueous and Bio-Ionic liquid Electrolytes. ACS Applied Materials & Interfaces, 2019, 11, 45098-45107.	8.0	38

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37	Electrochemical and spectroscopic study of Zn(<scp>ii</scp>) coordination and Zn electrodeposition in three ionic liquids with the trifluoromethylsulfonate anion, different imidazolium ions and their mixtures with water. Physical Chemistry Chemical Physics, 2015, 17, 15945-15952.	2.8	36
38	Characterisation of the solid electrolyte interface during lithiation/delithiation of germanium in an ionic liquid. Physical Chemistry Chemical Physics, 2016, 18, 5630-5637.	2.8	36
39	Preparation of Sn-NiO films and all-solid-state devices with enhanced electrochromic properties by magnetron sputtering method. Electrochimica Acta, 2021, 367, 137457.	5.2	36
40	Electrochemical and Spectroscopic Studies of Zinc Acetate in 1â€Ethylâ€3â€methylimidazolium Acetate for Zinc Electrodeposition. ChemElectroChem, 2016, 3, 598-604.	3.4	35
41	Changes of the near-surface chemical composition of the 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide room temperature ionic liquid under the influence of irradiation. Physical Chemistry Chemical Physics, 2011, 13, 1174-1181.	2.8	33
42	Electrodeposition and stripping of zinc from an ionic liquid polymer gel electrolyte for rechargeable zinc-based batteries. Journal of Solid State Electrochemistry, 2014, 18, 2683-2691.	2.5	33
43	In situ scanning tunneling microscopy (STM), atomic force microscopy (AFM) and quartz crystal microbalance (EQCM) studies of the electrochemical deposition of tantalum in two different ionic liquids with the 1-butyl-1-methylpyrrolidinium cation. Electrochimica Acta, 2016, 197, 374-387.	5.2	31
44	Influence of a silver salt on the nanostructure of a Au(111)/ionic liquid interface: an atomic force microscopy study and theoretical concepts. Physical Chemistry Chemical Physics, 2018, 20, 4760-4771.	2.8	30
45	X-ray Photoelectron Spectroscopy Probing of the Interphase between Solid-State Sulfide Electrolytes and a Lithium Anode. Journal of Physical Chemistry C, 2020, 124, 300-308.	3.1	30
46	A simple and fast technique to grow free-standing germanium nanotubes and core-shell structures from room temperature ionic liquids. Electrochimica Acta, 2014, 121, 154-158.	5.2	28
47	Electrodeposition of Zinc from 1-ethyl-3-methylimidazolium acetate-water Mixtures: Investigations on the Applicability of the Electrolyte for Zn-Air Batteries. Journal of the Electrochemical Society, 2018, 165, D354-D363.	2.9	28
48	Surface modification of battery electrodes via electroless deposition with improved performance for Na-ion batteries. Physical Chemistry Chemical Physics, 2016, 18, 14782-14786.	2.8	25
49	Interfacial Nanostructure and Asymmetric Electrowetting of Ionic Liquids. Langmuir, 2017, 33, 9539-9547.	3.5	24
50	Templateâ€Free Electrodeposition of SnSi Nanowires from an Ionic Liquid. ChemElectroChem, 2015, 2, 1361-1365.	3.4	22
51	A Comparative Study on the Electrodeposition of Tin from Two Different Ionic Liquids: Influence of the Anion on the Morphology of the Tin Deposits. ChemElectroChem, 2014, 1, 1549-1556.	3.4	21
52	Electroless Deposition of IIIâ€“V Semiconductor Nanostructures from Ionic Liquids at Room Temperature. Angewandte Chemie - International Edition, 2015, 54, 11870-11874.	13.8	21
53	High temperature electrochemical scanning tunneling microscope instrument. Review of Scientific Instruments, 2002, 73, 102-107.	1.3	20
54	Surface Analysis of Nanoscale Aluminium and Silicon Films Made by Electrodeposition in Ionic Liquids. Zeitschrift Fur Physikalische Chemie, 2008, 222, 671-686.	2.8	20

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55	In situ X-ray photoelectron spectroscopy investigation of the solid electrolyte interphase in a Li/Li6.4Ga0.2La3Zr2O12/LiFePO4 all-solid-state battery. Journal of Solid State Electrochemistry, 2019, 23, 2107-2117.	2.5	19
56	Electrochemical scanning tunnelling microscopy (EC-STM) study of silver electrodeposition from a room temperature molten salt. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1997, 101, 1075-1077.	0.9	18
57	Electrodeposition of zinc nanoplates from an ionic liquid composed of 1-butylpyrrolidine and ZnCl₂: electrochemical, in situ AFM and spectroscopic studies. Dalton Transactions, 2017, 46, 455-464.	3.3	18
58	Effect of dissolved LiCl on the ionic liquidâ€“Au(111) interface: an in situ STM study. Journal of Physics Condensed Matter, 2014, 26, 284111.	1.8	16
59	Electrodeposition of Ge, Sn and GexSn1-x from two different room temperature ionic liquids. Journal of Solid State Electrochemistry, 2015, 19, 785-793.	2.5	16
60	Dendritenfreie elektrochemische Abscheidung von nanokristallinem Zink aus einer Nickeltriflatâ€haltigen ionischen FlÃ¼ssigkeit fÃ¼r wiederaufladbare Znâ€Batterien. Angewandte Chemie, 2016, 128, 2939-2943.	2.0	16
61	Biodegradable Zn-ion battery with a lignin composite electrode and bio-ionic liquid based electrolyte: possible in situ energy generation by lignin electrocatalysis. Materials Advances, 2021, 2, 2676-2683.	5.4	15
62	Influence of an Additive on Zinc Electrodeposition in the Ionic Liquid 1â€Ethylâ€3â€methylimidazolium Trifluoromethylsulfonate. ChemElectroChem, 2015, 2, 1159-1163.	3.4	14
63	UV-assisted, template-free electrodeposition of germanium nanowire cluster arrays from an ionic liquid for anodes in lithium-ion batteries. New Journal of Chemistry, 2017, 41, 15210-15215.	2.8	14
64	Anomalous electroless deposition of less noble metals on Cu in ionic liquids and its application towards battery electrodes. Faraday Discussions, 2018, 206, 339-351.	3.2	14
65	Hydrofluoric Acid-Free Electroless Deposition of Metals on Silicon in Ionic Liquids and Its Enhanced Performance in Lithium Storage. ACS Applied Materials & Interfaces, 2017, 9, 11350-11355.	8.0	13
66	Ionic Liquidâ€“Organic Solvent Mixture-Based Polymer Gel Electrolyte with High Lithium Concentration for Li-Ion Batteries. Journal of Physical Chemistry C, 2018, 122, 24788-24800.	3.1	13
67	Highly efficient electrocatalytic hydrogen evolution reaction on carbonized porous conducting polymers. Journal of Solid State Electrochemistry, 2020, 24, 2763-2771.	2.5	13
68	Disproportionation Reaction of Gallium during Electrodeposition from an Ionic Liquid, Monitored by In Situ Electrochemical XPS. Journal of Physical Chemistry C, 2021, 125, 24589-24595.	3.1	13
69	Electrodeposition of gallium in the presence of NH₄Cl in an ionic liquid: hints for GaN formation. Chemical Communications, 2014, 50, 10438.	4.1	12
70	Investigation of the Electrode/Ionic Liquid Interphase: Chemical Reactions of an Ionic Liquid and a Lithium Salt with Lithiated Graphite Probed by X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 10325-10332.	3.1	12
71	The Au(111)/IL interfacial nanostructure in the presence of precursors and its influence on the electrodeposition process. Faraday Discussions, 2018, 206, 459-473.	3.2	11
72	An Ionic Liquidâ€Surface Functionalized Polystyrene Spheres Hybrid Electrolyte for Rechargeable Zinc/Conductive Polymer Batteries. ChemElectroChem, 2018, 5, 2321-2325.	3.4	11

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73	Electrodeposition of Indium from an Ionic Liquid Investigated by In Situ Electrochemical XPS. Metals, 2022, 12, 59.	2.3	11
74	In Situ Electrochemical XPS Monitoring of the Formation of Anionic Gold Species by Cathodic Corrosion of a Gold Electrode in an Ionic Liquid. Journal of Physical Chemistry C, 2021, 125, 26793-26800.	3.1	10
75	Investigation of Non-Saccharomyces Yeast Strains for Their Suitability for the Production of Non-Alcoholic Beers with Novel Flavor Profiles. Journal of the American Society of Brewing Chemists, 0, , 1-15.	1.1	9
76	Electrochemical Synthesis of Gallium Nanowires and Macroporous Structures in an Ionic Liquid. ChemPhysChem, 2011, 12, 2751-2754.	2.1	8
77	Electrodeposition of Lithium in Polystyrene Sphere Opal Structures on Copper from an Ionic Liquid. Australian Journal of Chemistry, 2012, 65, 1507.	0.9	8
78	Electrodeposition of Lithium/Polystyrene Composite Electrodes from an Ionic Liquid: First Attempts. Zeitschrift Fur Physikalische Chemie, 2012, 226, 121-128.	2.8	8
79	In situ STM study of zinc electrodeposition on Au(111) from the ionic liquid 1-ethyl-3-methylimidazolium trifluoromethylsulfonate. Journal of Solid State Electrochemistry, 2014, 18, 2581-2587.	2.5	8
80	Nanostructure of the H-terminated p-Si(111)/ionic liquid interface and the effect of added lithium salt. Physical Chemistry Chemical Physics, 2017, 19, 54-58.	2.8	8
81	On the Electrodeposition of Titanium from TiCl₄in 1-butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)amide: In Situ AFM and Spectroscopic Investigations. Journal of the Electrochemical Society, 2018, 165, D223-D230.	2.9	8
82	Entropy Changes upon Double Layer Charging at a (111)-Textured Au Film in Pure 1-Butyl-1-Methylpyrrolidinium Bis[(trifluoromethyl)sulfonyl]imide Ionic Liquid. Journal of Physical Chemistry C, 2020, 124, 693-700.	3.1	8
83	Multi-color poly(3-methylthiophene) films prepared by a novel pre-nucleation electrodeposition grown method for enhancing electrochromic stability. Electrochimica Acta, 2020, 362, 137103.	5.2	8
84	Zinc Storage Mechanism in Polypyrrole Electrodeposited from Aqueous, Organic, and Ionic Liquid Electrolytes: An In Situ Raman Spectroelectrochemical Study. ACS Applied Energy Materials, 2022, 5, 3217-3226.	5.1	8
85	Electrochemical Synthesis of Battery Electrode Materials from Ionic Liquids. Topics in Current Chemistry, 2018, 376, 9.	5.8	7
86	Interactions between Lithium, an Ionic Liquid, and Si(111) Surfaces Studied by X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry Letters, 2018, 9, 4673-4678.	4.6	7
87	Surface-Oxygen Induced Electrochemical Self-Assembly of Mesoporous Conducting Polymers for Electrocatalysis. Journal of the Electrochemical Society, 2020, 167, 112501.	2.9	7
88	Electrochemically induced phase separation and in situ formation of mesoporous structures in ionic liquid mixtures. Science Advances, 2018, 4, eaau9663.	10.3	6
89	Influence of Chemical Structure and Temperature on Oxygen Reduction Reaction and Transport in Ionic Liquids. Zeitschrift Fur Physikalische Chemie, 2017, 231, 1077-1092.	2.8	5
90	Lithiation of Single-Crystalline Ge(111) and Si(111) Investigated by X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2021, 125, 13501-13507.	3.1	5

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91	Ionic Liquid and Polymer Coated Garnet Solid Electrolytes for Highâ€Energy Solidâ€State Lithium Metal Batteries. Energy Technology, 2022, 10, .	3.8	5
92	Modification of the Electrolyte/Electrode Interface for the Template-free Electrochemical Synthesis of Metal Nanowires from Ionic Liquids. Journal of Physical Chemistry Letters, 2018, 9, 1272-1278.	4.6	4
93	In Situ Atomic Force Microscopy and Electrochemical Quartz Crystal Microbalance Studies on the Electrodeposition and Oxidation of Silicon. Journal of Physical Chemistry C, 2018, 122, 14499-14510.	3.1	4
94	Electrochemical synthesis of nanowires and macroporous CuSn alloy from ionic liquids. Journal of Solid State Electrochemistry, 2022, 26, 783-789.	2.5	3
95	In Situ Atomic Force Microscopic Studies of LiFSI-[Py_{1,4}]FSI Interfacial Nanostructure on Au(111): Solid Electrolyte Interphase and Lithium Underpotential Deposition. Journal of Physical Chemistry C, 2021, 125, 27140-27147.	3.1	3
96	The Apparent Band Gap of p-Doped H-Passivated Si (111) with a Thin Film of an Ionic Liquid on Top. Journal of Physical Chemistry C, 2018, 122, 5481-5488.	3.1	2
97	Electrodeposition of Lithium-Silicon Alloys from 1-butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)amide. Journal of the Electrochemical Society, 2018, 165, D790-D795.	2.9	2
98	3D Ordered Macroporous Ge/Al and Ge/Si Bilayer Films Made by Electrodeposition from Ionic Liquids. Zeitschrift Fur Physikalische Chemie, 2013, 227, 1731-1740.	2.8	1
99	How a Transitionâ€Metal(II) Chloride Interacts with a Eutectic AlCl₃â€Based Ionic Liquid: Insights into the Speciation of the Electrolyte and Electrodeposition of Magnetic Materials. Chemistry - an Asian Journal, 2017, 12, 2684-2693.	3.3	1
100	Electrocodeposition of Titanium and Gallium from 1-Butyl-1-Methylpyrrolidinium Trifluoromethanesulfonate. Journal of the Electrochemical Society, 2020, 167, 122512.	2.9	1
101	Ionic Liquid and Polymer Coated Garnet Solid Electrolytes for Highâ€Energy Solidâ€State Lithium Metal Batteries. Energy Technology, 2022, 10, .	3.8	1
102	Ionic Liquid Multilayers on Electrode Surfaces: Influence of Electrode Potential and Solutes. , 2020, , 159-182.		0