

Falk Muench

List of Publications by Year in descending order

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64
papers

1,162
citations

331670

21
h-index

454955

30
g-index

65
all docs

65
docs citations

65
times ranked

1282
citing authors

#	ARTICLE	IF	CITATIONS
1	Electroless synthesis of nanostructured nickel and nickelâ€“boron tubes and their performance as unsupported ethanol electrooxidation catalysts. <i>Journal of Power Sources</i> , 2013, 222, 243-252.	7.8	82
2	Fabrication of Single Cylindrical Au-Coated Nanopores with Non-Homogeneous Fixed Charge Distribution Exhibiting High Current Rectifications. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 12486-12494.	8.0	55
3	Ligand-optimized electroless synthesis of silver nanotubes and their activity in the reduction of 4-nitrophenol. <i>Nanotechnology</i> , 2011, 22, 415602.	2.6	51
4	Free-Standing Networks of Coreâ€“Shell Metal and Metal Oxide Nanotubes for Glucose Sensing. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 771-781.	8.0	41
5	Multiple activation of ion track etched polycarbonate for the electroless synthesis of metal nanotubes. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 105, 847-854.	2.3	37
6	Electroless Plating of Metal Nanomaterials. <i>ChemElectroChem</i> , 2021, 8, 2993-3012.	3.4	37
7	4-(Dimethylamino)pyridine as a Powerful Auxiliary Reagent in the Electroless Synthesis of Gold Nanotubes. <i>Langmuir</i> , 2011, 27, 430-435.	3.5	36
8	Hierarchical pipe cactus-like Ni/NiCo-LDH coreâ€“shell nanotube networks as a self-supported battery-type electrode for supercapacitors with high volumetric energy density. <i>Journal of Materials Chemistry A</i> , 2022, 10, 12473-12488.	10.3	36
9	Electroless synthesis of platinum and platinumâ€“ruthenium nanotubes and their application in methanol oxidation. <i>Journal of Materials Chemistry</i> , 2011, 21, 6286.	6.7	35
10	Thermal stability of electrodeposited platinum nanowires and morphological transformations at elevated temperatures. <i>Nanotechnology</i> , 2012, 23, 475710.	2.6	35
11	3D NiCo-Layered double Hydroxide@Ni nanotube networks as integrated free-standing electrodes for nonenzymatic glucose sensing. <i>Journal of Colloid and Interface Science</i> , 2021, 591, 384-395.	9.4	35
12	A simple and effective method for the accurate extraction of kinetic parameters using differential Tafel plots. <i>Scientific Reports</i> , 2021, 11, 8974.	3.3	32
13	Electrodeposition and electroless plating of hierarchical metal superstructures composed of 1D nano- and microscale building blocks. <i>Electrochimica Acta</i> , 2016, 202, 47-54.	5.2	30
14	Template-Free Electroless Plating of Gold Nanowires: Direct Surface Functionalization with Shape-Selective Nanostructures for Electrochemical Applications. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 31142-31152.	8.0	29
15	Template-based synthesis of metallic Pd nanotubes by electroless deposition and their use as catalysts in the 4-nitrophenol model reaction. <i>Green Chemistry</i> , 2016, 18, 558-564.	9.0	28
16	Fabrication of porous rhodium nanotube catalysts by electroless plating. <i>Journal of Materials Chemistry</i> , 2012, 22, 12784.	6.7	26
17	Polymer activation by reducing agent absorption as a flexible tool for the creation of metal films and nanostructures by electroless plating. <i>Surface and Coatings Technology</i> , 2014, 242, 100-108.	4.8	26
18	Electroless decoration of macroscale foam with nickel nano-spikes: A scalable route toward efficient catalyst electrodes. <i>Electrochemistry Communications</i> , 2016, 65, 39-43.	4.7	26

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19	NiCo nanotubes plated on Pd seeds as a designed magnetically collectable catalyst with high noble metal utilisation. RSC Advances, 2016, 6, 70033-70039.	3.6	24
20	Metal Nanotube/Nanowire-Based Unsupported Network Electrocatalysts. Catalysts, 2018, 8, 597.	3.5	24
21	Metal Nanotubes and Nanowires with Rhombohedral Cross-Section Electrolessly Deposited in Mica Templates. Langmuir, 2014, 30, 10878-10885.	3.5	23
22	Nucleation-Controlled Solution Deposition of Silver Nanoplate Architectures for Facile Derivatization and Catalytic Applications. Advanced Materials, 2018, 30, e1805179.	21.0	23
23	Self-assembled micellar clusters based on Triton-X-family surfactants for enhanced solubilization, encapsulation, proteins permeability control, and anticancer drug delivery. Materials Science and Engineering C, 2019, 99, 794-804.	7.3	23
24	Green plating of high aspect ratio gold nanotubes and their morphology-dependent performance in enzyme-free peroxide sensing. RSC Advances, 2014, 4, 24504.	3.6	21
25	Self-Supporting Metal Nanotube Networks Obtained by Highly Conformal Electroless Plating. ChemPlusChem, 2015, 80, 1448-1456.	2.8	18
26	Conformal Solution Deposition of Pt-Pd Titania Nanocomposite Coatings for Light-Assisted Formic Acid Electro-Oxidation. ACS Applied Materials & Interfaces, 2019, 11, 43081-43092.	8.0	17
27	Empowering Electroless Plating to Produce Silver Nanoparticle Films for DNA Biosensing Using Localized Surface Plasmon Resonance Spectroscopy. ACS Applied Bio Materials, 2019, 2, 856-864.	4.6	17
28	Nano- and microstructured silver films synthesised by halide-assisted electroless plating. New Journal of Chemistry, 2015, 39, 6803-6812.	2.8	16
29	Electroless synthesis of cellulose-metal aerogel composites. Applied Physics Letters, 2016, 108, .	3.3	16
30	Expanding the boundaries of metal deposition: High aspect ratio silver nanoplatelets created by merging nanobelts. Electrochimica Acta, 2018, 264, 233-243.	5.2	16
31	A comparative study on degradation characteristics of fluoropolymers irradiated by high energy heavy ions. RSC Advances, 2014, 4, 50171-50179.	3.6	15
32	Electroless plating of ultrathin palladium films: self-initiated deposition and application in microreactor fabrication. Materials Research Express, 2015, 2, 105010.	1.6	15
33	Facile wet-chemical synthesis of differently shaped cuprous oxide particles and a thin film: Effect of catalyst morphology on the glucose sensing performance. Sensors and Actuators B: Chemical, 2015, 214, 189-196.	7.8	15
34	Shape-Selective Electroless Plating within Expanding Template Pores: Etching-Assisted Deposition of Spiky Nickel Nanotube Networks. Langmuir, 2019, 35, 4246-4253.	3.5	15
35	Platinum nanowires with pronounced texture, controlled crystallite size and excellent growth homogeneity fabricated by optimized pulsed electrodeposition. RSC Advances, 2014, 4, 4804.	3.6	14
36	Electrocatalytic applications of platinum-decorated TiO ₂ nanotubes prepared by a fully wet-chemical synthesis. Journal of Materials Science, 2017, 52, 7754-7767.	3.7	14

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37	Electroless Synthesis of Highly Stable and Free-standing Porous Pt Nanotube Networks and their Application in Methanol Oxidation. <i>ChemElectroChem</i> , 2018, 5, 1087-1097.	3.4	14
38	Polycarbonate activation for electroless plating by dimethylaminoborane absorption and subsequent nanoparticle deposition. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 116, 287-294.	2.3	13
39	Double-Walled Ag-Pt Nanotubes Fabricated by Galvanic Replacement and Dealloying: Effect of Composition on the Methanol Oxidation Activity. <i>Nano</i> , 2015, 10, 1550085.	1.0	13
40	Templated synthesis of pure and bimetallic gold/platinum nanotubes using complementary seeding and plating reactions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 508, 197-204.	4.7	13
41	Electroless Nanoplatinum of Pd-Pt Alloy Nanotube Networks: Catalysts with Full Compositional Control for the Methanol Oxidation Reaction. <i>ChemElectroChem</i> , 2020, 7, 855-864.	3.4	12
42	Hierarchically porous carbon membranes containing designed nanochannel architectures obtained by pyrolysis of ion-track etched polyimide. <i>Materials Chemistry and Physics</i> , 2014, 148, 846-853.	4.0	11
43	Deposition of Nanofilms inside a Polymer Template: Formation of Metal Nanotubes. <i>E-Journal of Surface Science and Nanotechnology</i> , 2012, 10, 578-584.	0.4	10
44	Tailored dendritic platinum nanostructures as a robust and efficient direct formic acid fuel cell anode. <i>New Journal of Chemistry</i> , 2019, 43, 4100-4105.	2.8	10
45	Carbon nanocasting in ion-track etched polycarbonate membranes. <i>Materials Letters</i> , 2017, 187, 56-59.	2.6	7
46	Stable platinum nanostructures on nitrogen-doped carbon obtained by high-temperature synthesis for use in PEMFC. <i>Journal of Applied Electrochemistry</i> , 2014, 44, 573-580.	2.9	6
47	Dual Metastability in Electroless Plating: Complex Inertness Enabling the Deposition of Composition-tunable Platinum Copper Alloy Nanostructures. <i>Chemistry - A European Journal</i> , 2020, 26, 3030-3033.	3.3	6
48	Electrical and thermal conductivities of polycrystalline platinum nanowires. <i>Nanotechnology</i> , 2019, 30, 455706.	2.6	5
49	<i>In Situ</i> Transmission Electron Microscopy Analysis of Thermally Decaying Polycrystalline Platinum Nanowires. <i>ACS Nano</i> , 2020, 14, 11309-11318.	14.6	5
50	Electroless Nanoplatinum of Iridium: Template-assisted Nanotube Deposition for the Continuous Flow Reduction of 4-Nitrophenol. <i>ChemElectroChem</i> , 2020, 7, 3496-3507.	3.4	5
51	Synthesis of nanoparticle/ligand composite thin films by sequential ligand self assembly and surface complex reduction. <i>Journal of Colloid and Interface Science</i> , 2013, 389, 23-30.	9.4	4
52	Increasing the structural and compositional diversity of ion-track templated 1D nanostructures through multistep etching, plastic deformation, and deposition. <i>Nanotechnology</i> , 2022, 33, 245603.	2.6	4
53	Wet-chemical etching of SrMoO ₃ thin films. <i>Materials Letters</i> , 2016, 184, 173-176.	2.6	3
54	Use of a nanostructured surface coating to achieve higher sputter rates. <i>Materials Letters</i> , 2016, 164, 532-534.	2.6	3

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55	Electrodeposition of palladium-dotted nickel nanowire networks as a robust self-supported methanol electrooxidation catalyst. <i>Journal of Materials Science</i> , 2021, 56, 12620-12633.	3.7	3
56	Copper Nanowires, Nanotubes, and Hierarchical Nanopatterns: One-Dimensional Architectures using Ion Track Etched Templates. <i>Transactions of the Materials Research Society of Japan</i> , 2012, 37, 213-218.	0.2	3
57	Impact of Specifically Adsorbing Anions on the Electroless Growth of Gold Nanotubes. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-10.	2.7	2
58	Data on peptidyl platform-based anticancer drug synthesis and triton-x-based micellar clusters (MCs) self-assembly peculiarities for enhanced solubilization, encapsulation of hydrophobic compounds and their interaction with HeLa cells. <i>Data in Brief</i> , 2019, 25, 104052.	1.0	2
59	Electroless Plating of Stacked, Single-Crystalline Silver Nanoplatelets and Dendrites. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	2
60	Larch-derived hierarchical nitrogen-doped carbon with echinus-like architecture for supercapacitor applications. <i>Holzforschung</i> , 2020, 74, 529-538.	1.9	1
61	Electroless Plating of Metal Nanomaterials. <i>ChemElectroChem</i> , 2021, 8, 2988-2989.	3.4	1
62	Direct surface functionalization with metal and metal oxide nanostructures. , 2023, , 318-336.		1
63	Nanoparticles as a Metal Source in Plasma Processes. <i>Transactions of the Materials Research Society of Japan</i> , 2017, 42, 31-36.	0.2	0
64	Funtionalization and Electrocatalytic Application of Electrolessly Deposited Silver Nanoplatelet Films. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0