## Frederic Kanoufi

List of Publications by Year in descending order

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126907 138484 4,222 123 33 58 citations h-index g-index papers 125 125 125 3491 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Emerging Optical Microscopy Techniques for Electrochemistry. Annual Review of Analytical Chemistry, 2022, 15, 57-82.	5.4	24
2	Probing the reactive intermediate species generated during electrocatalysis by scanning electrochemical microscopy. Current Opinion in Electrochemistry, 2022, 35, 101071.	4.8	6
3	Decoupling the Dynamics of Zinc Hydroxide Sulfate Precipitation/Dissolution in Aqueous Zn–MnO <sub>2</sub> Batteries by Operando Optical Microscopy: A Missing Piece of the Mechanistic Puzzle. Advanced Energy Materials, 2022, 12, .	19.5	22
4	Bridging the Gap between Single Nanoparticle Imaging and Global Electrochemical Response by Correlative Microscopy Assisted By Machine Vision. Small Methods, 2022, 6, .	8.6	13
5	Imaging and Quantifying the Formation of Single Nanobubbles at Single Platinum Nanoparticles during the Hydrogen Evolution Reaction. ACS Nano, 2021, 15, 2643-2653.	14.6	51
6	Operando analysis of the electrosynthesis of Ag2O nanocubes by scanning electrochemical microscopy. Electrochemistry Communications, 2021, 124, 106950.	4.7	3
7	Deciphering Competitive Routes for Nickelâ€Based Nanoparticle Electrodeposition by an Operando Optical Monitoring. Angewandte Chemie, 2021, 133, 17117-17120.	2.0	1
8	Deciphering Competitive Routes for Nickelâ€Based Nanoparticle Electrodeposition by an Operando Optical Monitoring. Angewandte Chemie - International Edition, 2021, 60, 16980-16983.	13.8	17
9	Direct vs Indirect Grafting of Alkyl and Aryl Halides. ChemPhysChem, 2021, 22, 1844-1849.	2.1	4
10	Differentiating electrochemically active regions of indium tin oxide electrodes for hydrogen evolution and reductive decomposition reactions. An in situ optical microscopy approach. Electrochimica Acta, 2021, 386, 138498.	5.2	30
11	Influence of lift forces on particle capture on a functionalized surface. Microfluidics and Nanofluidics, 2021, 25, 1.	2.2	O
12	Hybrid scanning electrochemical cell microscopy-interference reflection microscopy (SECCM-IRM): tracking phase formation on surfaces in small volumes. Faraday Discussions, 2021, 233, 122-148.	3.2	35
13	The Potentiality of Optics in Correlative Microscopies Strategies for In situ Nanoscale Probing of Electrochemical Processes. Microscopy and Microanalysis, 2021, 27, 51-52.	0.4	O
14	Revealing the sub-50 ms electrochemical conversion of silver halide nanocolloids by stochastic electrochemistry and optical microscopy. Nanoscale, 2020, 12, 15128-15136.	5.6	10
15	Probing the Activity of Iron Peroxo Porphyrin Intermediates in the Reaction Layer during the Electrochemical Reductive Activation of O <sub>2</sub> . Angewandte Chemie - International Edition, 2020, 59, 16376-16380.	13.8	9
16	Probing the Activity of Iron Peroxo Porphyrin Intermediates in the Reaction Layer during the Electrochemical Reductive Activation of O 2. Angewandte Chemie, 2020, 132, 16518.	2.0	0
17	Optical monitoring of the electrochemical nucleation and growth of silver nanoparticles on electrode: From single to ensemble nanoparticles inspection. Journal of Electroanalytical Chemistry, 2020, 872, 114043.	3.8	27
18	Effect of the driving force on nanoparticles growth and shape: an opto-electrochemical study. Nanoscale, 2020, 12, 3227-3235.	5.6	11

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19	Electrografting of methylamine through C–H activation or oxidation to give highly aminated surfaces. Electrochimica Acta, 2020, 345, 136170.	5.2	6
20	In Situ Optical Monitoring of the Electrochemical Conversion of Dielectric Nanoparticles: From Multistep Charge Injection to Nanoparticle Motion. Journal of the American Chemical Society, 2020, 142, 7937-7946.	13.7	35
21	Optical Nanoimpacts of Dielectric and Metallic Nanoparticles on Gold Surface by Reflectance Microscopy: Adsorption or Bouncing?. Journal of Analysis and Testing, 2019, 3, 175-188.	5.1	21
22	Single LiBH4 nanocrystal stochastic impacts at a micro water   ionic liquid interface. Electrochimica Acta, 2019, 299, 222-230.	5.2	13
23	Indirect electrografting of aryl iodides. Electrochemistry Communications, 2019, 98, 119-123.	4.7	6
24	Scanning Electrochemical Microscopy for the Electroless Deposition of Gold on Natural Pyrite: Effect of Ferric Ions. ChemElectroChem, 2019, 6, 779-786.	3.4	8
25	A conductive hydrogel based on alginate and carbon nanotubes for probing microbial electroactivity. Soft Matter, 2018, 14, 1434-1441.	2.7	37
26	Light Driven Design of Dynamical Thermosensitive Plasmonic Superstructures: A Bottom-Up Approach Using Silver Supercrystals. ACS Nano, 2018, 12, 10833-10842.	14.6	13
27	Alkyl-Modified Gold Surfaces: Characterization of the Au–C Bond. Langmuir, 2018, 34, 11264-11271.	3.5	26
28	Monitoring Cobalt-Oxide Single Particle Electrochemistry with Subdiffraction Accuracy. Analytical Chemistry, 2018, 90, 7341-7348.	6.5	33
29	The promise of antireflective gold electrodes for optically monitoring the electro-deposition of single silver nanoparticles. Faraday Discussions, 2018, 210, 381-395.	3.2	16
30	Combining Electrodeposition and Optical Microscopy for Probing Sizeâ€Dependent Singleâ€Nanoparticle Electrochemistry. Angewandte Chemie, 2018, 130, 12174-12178.	2.0	7
31	Patterning Surfaces through Photografting of Iodonium Salts. Journal of Physical Chemistry C, 2018, 122, 19722-19730.	3.1	14
32	Combining Electrodeposition and Optical Microscopy for Probing Sizeâ€Dependent Singleâ€Nanoparticle Electrochemistry. Angewandte Chemie - International Edition, 2018, 57, 11998-12002.	13.8	49
33	Single Nanoparticle Growth from Nanoparticle Tracking Analysis: From Monte Carlo Simulations to Nanoparticle Electrogeneration. ChemElectroChem, 2018, 5, 3036-3043.	3.4	8
34	Imaging of a Thin Oxide Film Formation from the Combination of Surface Reflectivity and Electrochemical Methods. Analytical Chemistry, 2017, 89, 5303-5310.	6.5	23
35	Optoâ€electrochemical In Situ Monitoring of the Cathodic Formation of Single Cobalt Nanoparticles. Angewandte Chemie - International Edition, 2017, 56, 10598-10601.	13.8	48
36	Some Theoretical and Experimental Insights on the Mechanistic Routes Leading to the Spontaneous Grafting of Gold Surfaces by Diazonium Salts. Langmuir, 2017, 33, 8730-8738.	3.5	41

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37	Platinum Nanoparticle Impacts at a Liquid   Liquid Interface. Angewandte Chemie, 2017, 129, 13678-13682.	2.0	13
38	Platinum Nanoparticle Impacts at a Liquid   Liquid Interface. Angewandte Chemie - International Edition, 2017, 56, 13493-13497.	13.8	44
39	Optoelektrochemische Inâ€situâ€Beobachtung der kathodischen Abscheidung einzelner Cobaltnanopartikel. Angewandte Chemie, 2017, 129, 10734-10737.	2.0	5
40	Electrochemical transformation of individual nanoparticles revealed by coupling microscopy and spectroscopy. Faraday Discussions, 2016, 193, 339-352.	3.2	28
41	Surface modification by electrochemical reduction of alkyldiazonium salts. Electrochemistry Communications, 2016, 68, 5-9.	4.7	9
42	Electrochemistry of Single Nanodomains Revealed by Three-Dimensional Holographic Microscopy. Accounts of Chemical Research, 2016, 49, 2049-2057.	15.6	49
43	Grafting of an aluminium surface with organic layers. RSC Advances, 2016, 6, 78369-78377.	3.6	18
44	Calibration procedures for quantitative multiple wavelengths reflectance microscopy. Review of Scientific Instruments, 2016, 87, 013702.	1.3	1
45	Prussian Blue Degradation during Hydrogen Peroxide Reduction: A Scanning Electrochemical Microscopy Study on the Role of the Hydroxide Ion and Hydroxyl Radical. ChemElectroChem, 2016, 3, 1178-1184.	3.4	23
46	Facilitated Lewis Acid Transfer by Phospholipids at a (Water CHCl <sub>3</sub> ) Liquid Liquid Interface toward Biomimetic and Energy Applications. Journal of Physical Chemistry C, 2016, 120, 11977-11983.	3.1	18
47	Surface Functionalization of Metals by Alkyl Chains through a Radical Crossover Reaction. Langmuir, 2016, 32, 6335-6342.	3.5	12
48	Electron Transfer to a Phosphomolybdate Monolayer on Glassy Carbon: Ambivalent Effect of Protonation. Inorganic Chemistry, 2016, 55, 6929-6937.	4.0	15
49	Surface Modification of Polymers by Reaction of Alkyl Radicals. Langmuir, 2016, 32, 512-518.	3.5	19
50	Correlated Electrochemical and Optical Detection Reveals the Chemical Reactivity of Individual Silver Nanoparticles. Journal of the American Chemical Society, 2016, 138, 3478-3483.	13.7	136
51	Holographic Superlocalization of Individual Silver Nanoparticle Impacts in Micro-electrochemical Cells. , 2016, , .		0
52	Electron transfer properties of a monolayer of hybrid polyoxometalates on silicon. Journal of Materials Chemistry C, 2015, 3, 6266-6275.	5.5	36
53	Multiscale electrochemistry of hydrogels embedding conductive nanotubes. Chemical Science, 2015, 6, 3900-3905.	7.4	8
54	Two-step local functionalization of fluoropolymer Dyneon THV microfluidic materials by scanning electrochemical microscopy combined to click reaction. Electrochemistry Communications, 2015, 60, 5-8.	4.7	7

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55	Shearforce positioning of nanoprobe electrode arrays for scanning electrochemical microscopy experiments. Electrochimica Acta, 2015, 179, 45-56.	5.2	13
56	One-Step Formation of Bifunctionnal Aryl/Alkyl Grafted Films on Conducting Surfaces by the Reduction of Diazonium Salts in the Presence of Alkyl Iodides. Langmuir, 2015, 31, 5406-5415.	3.5	16
57	Deciphering the Elementary Steps of Transport-Reaction Processes at Individual Ag Nanoparticles by 3D Superlocalization Microscopy. Nano Letters, 2015, 15, 6454-6463.	9.1	65
58	Scanning Electrochemical Microscopy of Belousov–Zhabotinsky Reaction: How Confined Oscillations Reveal Short Lived Radicals and Auto-Catalytic Species. Analytical Chemistry, 2015, 87, 9621-9630.	6.5	20
59	Chemical communication between liposomes encapsulating a chemical oscillatory reaction. Chemical Science, 2014, 5, 1854-1859.	7.4	71
60	Electrografting of Alkyl Films at Low Driving Force by Diverting the Reactivity of Aryl Radicals Derived from Diazonium Salts. Langmuir, 2014, 30, 13907-13913.	3.5	23
61	Mapping electrogenerated chemiluminescence reactivity in space: mechanistic insight into model systems used in immunoassays. Chemical Science, 2014, 5, 2568-2572.	7.4	182
62	Control of the Grafting of Hybrid Polyoxometalates on Metal and Carbon Surfaces: Toward Submonolayers. Langmuir, 2014, 30, 2287-2296.	3.5	39
63	Simultaneous electrochemical and 3D optical imaging of silver nanoparticle oxidation. Chemical Physics Letters, 2014, 597, 20-25.	2.6	34
64	Localized Reduction of Graphene Oxide by Electrogenerated Naphthalene Radical Anions and Subsequent Diazonium Electrografting. Journal of the American Chemical Society, 2014, 136, 4833-4836.	13.7	27
65	In Situ, Real Time Monitoring of Surface Transformation: Ellipsometric Microscopy Imaging of Electrografting at Microstructured Gold Surfaces. Analytical Chemistry, 2013, 85, 1965-1971.	6.5	15
66	Electrografting of Diazoniumâ€Functionalized Polyoxometalates: Synthesis, Immobilisation and Electronâ€Transfer Characterisation from Glassy Carbon. Chemistry - A European Journal, 2013, 19, 13838-13846.	3.3	42
67	Electrochemical Detection of Single Microbeads Manipulated by Optical Tweezers in the Vicinity of Ultramicroelectrodes. Analytical Chemistry, 2013, 85, 8902-8909.	6.5	12
68	Mapping fluxes of radicals from the combination of electrochemical activation and optical microscopy. Faraday Discussions, 2013, 164, 241.	3.2	23
69	Sensitized Photografting of Diazonium Salts by Visible Light Chemistry of Materials, 2013, 25, 90-97.	6.7	61
70	Self-assembled thiolate functionalized gold nanoparticles template toward tailoring the morphology of electrochemically deposited silver nanostructure. Electrochimica Acta, 2013, 88, 621-631.	5.2	17
71	Radical Chemistry from Diazonium-Terminated Surfaces. Chemistry of Materials, 2013, 25, 605-612.	6.7	18
72	Immobilization of Magnetic Nanoparticles onto Conductive Surfaces Modified by Diazonium Chemistry. Langmuir, 2012, 28, 12671-12680.	3.5	11

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73	Scanning Electrochemical Microscopy Monitoring in Microcantilever Platforms Analytical Chemistry, 2012, 84, 7449-7455.	6.5	3
74	Reactivity of Surfaces Determined by Local Electrochemical Triggering: A Bromoâ€Terminated Selfâ€Assembled Monolayer. Angewandte Chemie - International Edition, 2012, 51, 5208-5212.	13.8	21
75	Using Timeâ€Resolved Electrochemical Patterning to Gain Fundamental Insight into Arylâ€Radical Surface Modification. ChemPhysChem, 2012, 13, 3303-3307.	2.1	7
76	Photochemical grafting of diazonium salts on metals. Chemical Communications, 2011, 47, 12631.	4.1	40
77	Local Oxidation of Polystyrene by Scanning Electrochemical Microscopy. Journal of Physical Chemistry C, 2011, 115, 17891-17897.	3.1	19
78	Surface Reactivity from Electrochemical Lithography: Illustration in the Steady-State Reductive Etching of Perfluorinated Surfaces. Analytical Chemistry, 2011, 83, 6106-6113.	6.5	18
79	Microchip integrating magnetic nanoparticles for allergy diagnosis. Lab on A Chip, 2011, 11, 4207.	6.0	64
80	Physisorption vs grafting of aryldiazonium salts onto iron: A corrosion study. Electrochimica Acta, 2011, 56, 10762-10766.	5.2	24
81	Local etching of copper films by the Scanning Electrochemical Microscope in the feedback mode: A theoretical and experimental investigation. Electrochimica Acta, 2011, 56, 10701-10707.	5.2	23
82	Kinetic analyses and performance of a colloidal magnetic nanoparticle based immunoassay dedicated to allergy diagnosis. Analytical and Bioanalytical Chemistry, 2011, 400, 3395-3407.	3.7	18
83	Scanning Electron Microscopy Investigation of Molecular Transport and Reactivity within Polymer Brushes. ChemPhysChem, 2010, 11, 670-682.	2.1	33
84	Indirect Grafting of Acetonitrile-Derived Films on Metallic Substrates. Chemistry of Materials, 2010, 22, 2962-2969.	6.7	27
85	Lithography by Scanning Electrochemical Microscopy with a Multiscaled Electrode. Analytical Chemistry, 2010, 82, 5169-5175.	6.5	24
86	Structural Effects in Radical Clocks and Mechanisms of Grignard Reagent Formation: Special Effect of a Phenyl Substituent in a Radical Clock when the Crossroads of Selectivity is at a Metal/Solution Interface. European Journal of Organic Chemistry, 2009, 2009, 2775-2787.	2.4	5
87	Spontaneous grafting of diazoates on metals. Electrochimica Acta, 2009, 54, 2164-2170.	5.2	48
88	Steric Effects in the Reaction of Aryl Radicals on Surfaces. Langmuir, 2009, 25, 286-293.	3.5	121
89	Local direct and indirect reduction of electrografted aryldiazonium/gold surfaces for polymer brushes patterning. Electrochimica Acta, 2009, 54, 5127-5136.	5.2	47
90	Scanning electrochemical microscopy for the direct patterning of a gold surface with organic moities derived from iodonium salt. Electrochemistry Communications, 2008, 10, 1230-1234.	4.7	44

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91	Microelectrochemical Patterning of Surfaces with Polymer Brushes. Chemistry of Materials, 2008, 20, 6677-6685.	6.7	33
92	Sterically Hindered Diazonium Salts for the Grafting of a Monolayer on Metals. Journal of the American Chemical Society, 2008, 130, 8576-8577.	13.7	215
93	Radical Clocks, Solvated Electrons, and Magnesium. Heterogeneous versus Homogeneous Electron Transfer. Selectivity at Interfaces. Journal of Physical Chemistry C, 2008, 112, 2545-2557.	3.1	14
94	Surface Modification of Halogenated Polymers. 10. Redox Catalysis Induction of the Polymerization of Vinylic Monomers. Application to the Localized Graft Copolymerization of Poly(tetrafluoroethylene) Surfaces by Vinylic Monomers. Chemistry of Materials, 2007, 19, 3830-3839.	6.7	24
95	Wetting and surface properties of (modified) fluoro-silanised glass. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 307, 7-15.	4.7	10
96	Formation of Polyphenylene Films on Metal Electrodes by Electrochemical Reduction of Benzenediazonium Salts. Chemistry of Materials, 2006, 18, 2021-2029.	6.7	153
97	Alkyl halides reactions with cathodes or with magnesium. Grignard reagent studied with radical clocks. What is the step competing with the isomerisation of the intermediate radical?. Journal of Physical Organic Chemistry, 2006, 19, 847-866.	1.9	13
98	Surface modification of halogenated polymers. 9. Etching of polytetrafluoroethylene with the scanning electrochemical microscope. Journal of Electroanalytical Chemistry, 2006, 589, 243-248.	3.8	15
99	Spontaneous grafting of iron surfaces by reduction of aryldiazonium salts in acidic water. Applications to the inhibition of iron corrosion., 2006,, 697-702.		4
100	Time-of-Flight Secondary Ion Mass Spectroscopy Characterization of the Covalent Bonding between a Carbon Surface and Aryl Groups. Langmuir, 2005, 21, 280-286.	3.5	168
101	Scanning Electrochemical Microscopy. Hydrodynamics Generated by the Motion of a Scanning Tip and Its Consequences on the Tip Current. Analytical Chemistry, 2005, 77, 7966-7975.	6.5	40
102	Hydrogenation versus hydrogenolysis with a safe, selective and reusable catalyst: palladium black on Teflonî. New Journal of Chemistry, 2005, 29, 761.	2.8	4
103	Spontaneous Grafting of Iron Surfaces by Reduction of Aryldiazonium Salts in Acidic or Neutral Aqueous Solution. Application to the Protection of Iron against Corrosion. Chemistry of Materials, 2005, 17, 3968-3975.	6.7	179
104	Surface modification of halogenated polymers. 6. Graft copolymerization of poly(tetrafluoroethylene) surfaces by polyacrylic acid. Polymer, 2004, 45, 4669-4675.	3.8	32
105	Surface Modification of Halogenated Polymers. 8. Local Reduction of Poly(tetrafluoroethylene) by the Scanning Electrochemical Microscope â^ Transient Investigation. Journal of Physical Chemistry B, 2004, 108, 19260-19268.	2.6	28
106	Scanning Electrochemical Microscopy with a Band Microelectrode:Â Theory and Application. Analytical Chemistry, 2004, 76, 3612-3618.	6.5	33
107	Surface modification of halogenated polymers. 6. Graft copolymerization of poly(tetrafluoroethylene) surfaces by polyacrylic acid. Polymer, 2004, 45, 4669-4669.	3.8	2
108	Surface Modification of Halogenated Polymers. 7. Local Reduction of Poly(tetrafluoroethylene) and Poly(chlorotrifluoroethylene) by a Scanning Electrochemical Microscope in the Feedback Mode. Journal of Physical Chemistry B, 2004, 108, 6391-6397.	2.6	24

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109	Cyclic voltammetry and scanning electrochemical microscopy of ferrocenemethanol at monolayer and bilayer-modified gold electrodes. Journal of Electroanalytical Chemistry, 2003, 547, 83-91.	3.8	138
110	Surface modification of halogenated polymers. Journal of Electroanalytical Chemistry, 2003, 556, 43-52.	3.8	36
111	Surface modification of halogenated polymers. 4. Functionalisation of poly(tetrafluoroethylene) surfaces by diazonium salts. Polymer, 2003, 44, 19-24.	3.8	62
112	Wetting Line Behavior on a Locally Surface Treated Poly(tetrafluoroethylene). Langmuir, 2003, 19, 6711-6716.	3.5	21
113	Reduction of Polyfluorinated Compounds. Journal of Physical Chemistry B, 2003, 107, 10894-10905.	2.6	24
114	Cyclic Voltammetric and Scanning Electrochemical Microscopic Study of Menadione Permeability through a Self-Assembled Monolayer on a Gold Electrode. Langmuir, 2002, 18, 8134-8141.	3.5	68
115	Homogeneous Oxidation of Trialkylamines by Metal Complexes and Its Impact on Electrogenerated Chemiluminescence in the Trialkylamine/Ru(bpy)32+System. Journal of Physical Chemistry B, 2001, 105, 210-216.	2.6	180
116	Scanning Electrochemical Microscopy. 43. Investigation of Oxalate Oxidation and Electrogenerated Chemiluminescence across the Liquidâ°'Liquid Interface. Journal of Physical Chemistry B, 2001, 105, 8951-8962.	2.6	33
117	Micrometrically Controlled Surface Modification of Teflon $\langle \sup \rangle \hat{A}^{\otimes} \langle \sup \rangle$ by Redox Catalysis: Electrochemical Coupling between Teflon $\langle \sup \rangle \hat{A}^{\otimes} \langle \sup \rangle$ and a Gold Band Ultramicroelectrode. Chemistry - A European Journal, 2000, 6, 820-835.	3.3	20
118	Surface modification of halogenated polymers. Polymer, 1999, 40, 2011-2026.	3.8	18
119	Selective Metallization of Mg/NH3-Treated Teflon by Copper CVD. Chemical Vapor Deposition, 1999, 5, 185-190.	1.3	13
120	Electrogenerated Chemiluminescence. 65. An Investigation of the Oxidation of Oxalate by Tris(polypyridine) Ruthenium Complexes and the Effect of the Electrochemical Steps on the Emission Intensity. Journal of Physical Chemistry B, 1999, 103, 10469-10480.	2.6	94
121	Surface modification of halogenated polymers. 2. Chloro- and fluoropolymers. Polymer, 1998, 39, 4867-4873.	3.8	11
122	Dynamics of Bond Breaking in Ion Radicals. Mechanisms and Reactivity in the Reductive Cleavage of Carbonâ^Fluorine Bonds of Fluoromethylarenes. Journal of the American Chemical Society, 1997, 119, 9527-9540.	13.7	87
123	Surface modification of halogenated polymers: 1. Polytetrafluoroethylene. Polymer, 1997, 38, 3295-3305.	3.8	29