Renaud Cornut

List of Publications by Year
in descending order

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33 papers	1,509 citations	394421 19 h-index	377865 34 g-index
34 all docs	34 docs citations	34 times ranked	2025 citing authors

#	Article	IF	Citations
1	Carbon Nanotube-Templated Synthesis of Covalent Porphyrin Network for Oxygen Reduction Reaction. Journal of the American Chemical Society, 2014, 136, 6348-6354.	13.7	231
2	Electrochemical Nanoprobes for Single-Cell Analysis. ACS Nano, 2014, 8, 875-884.	14.6	195
3	New analytical approximation of feedback approach curves with a microdisk SECM tip and irreversible kinetic reaction at the substrate. Journal of Electroanalytical Chemistry, 2008, 621, 178-184.	3.8	185
4	Analytical Expressions for Quantitative Scanning Electrochemical Microscopy (SECM). ChemPhysChem, 2010, 11, 547-556.	2.1	154
5	A unified new analytical approximation for negative feedback currents with a microdisk SECM tip. Journal of Electroanalytical Chemistry, 2007, 608, 59-66.	3.8	101
6	Enhancing the Performances of P3HT:PCBMâ€“MoS₃-Based H₂-Evolving Photocathodes with Interfacial Layers. ACS Applied Materials & Interfaces, 2015, 7, 16395-16403.	8.0	51
7	Investigating Catalase Activity Through Hydrogen Peroxide Decomposition by Bacteria Biofilms in Real Time Using Scanning Electrochemical Microscopy. Analytical Chemistry, 2014, 86, 498-505.	6.5	49
8	Assessing multidrug resistance protein 1-mediated function in cancer cell multidrug resistance by scanning electrochemical microscopy and flow cytometry. Bioelectrochemistry, 2011, 82, 29-37.	4.6	43
9	All solution-processed organic photocathodes with increased efficiency and stability via the tuning of the hole-extracting layer. Journal of Materials Chemistry A, 2016, 4, 4831-4839.	10.3	42
10	Detection of Hydrogen Peroxide Produced during the Oxygen Reduction Reaction at Self-Assembled Thiolâ^'Porphyrin Monolayers on Gold using SECM and Nanoelectrodes. Langmuir, 2010, 26, 13000-13006.	3.5	39
11	New analytical approximations for negative feedback currents with a microdisk SECM tip. Journal of Electroanalytical Chemistry, 2007, 604, 91-100.	3.8	37
12	Local surface modification via confined electrochemical deposition with FluidFM. RSC Advances, 2015, 5, 84517-84522.	3.6	37
13	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
14	Accuracy study on fitting procedure of kinetics SECM feedback experiments. Journal of Electroanalytical Chemistry, 2010, 650, 55-61.	3.8	26
15	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
16	Ohmic Drop in LiFePO4Based Lithium Battery Cathodes Containing Agglomerates. Journal of the Electrochemical Society, 2012, 159, A822-A827.	2.9	21
17	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
18	Optimization of the shearforce signal for scanning electrochemical microscopy and application for kinetic analysis. Electrochimica Acta, 2013, 88, 877-884.	5.2	20

#	Article	IF	Citations
19	Accurate and Simplified Consideration of the Probe Geometrical Defaults in Scanning Electrochemical Microscopy: Theoretical and Experimental Investigations. Analytical Chemistry, 2011, 83, 9669-9675.	6.5	19
20	Forced Convection during Feedback Approach Curve Measurements in Scanning Electrochemical Microscopy: Maximal Displacement Velocity with a Microdisk. Analytical Chemistry, 2012, 84, 3531-3537.	6.5	19
21	Contactless Surface Conductivity Mapping of Graphene Oxide Thin Films Deposited on Glass with Scanning Electrochemical Microscopy. Analytical Chemistry, 2013, 85, 1812-1818.	6.5	19
22	Surface Reactivity from Electrochemical Lithography: Illustration in the Steady-State Reductive Etching of Perfluorinated Surfaces. Analytical Chemistry, 2011, 83, 6106-6113.	6.5	18
23	Studying permeable films with scanning electrochemical microscopy (SECM): Quantitative determination of permeability parameter. Journal of Electroanalytical Chemistry, 2008, 623, 197-203.	3.8	17
24	Spontaneous adsorbed layers of 4-nitrobenzenediazonium salt on gold and glassy carbon: Local characterization by SECM and electron-transfer kinetics evaluation. Journal of Electroanalytical Chemistry, 2010, 647, 93-96.	3.8	17
25	Enzyme-mediator kinetics studies with SECM: Numerical results and procedures to determine kinetics constants. Journal of Electroanalytical Chemistry, 2009, 633, 221-227.	3.8	16
26	New Insights into the Electronic Transport of Reduced Graphene Oxide Using Scanning Electrochemical Microscopy. Journal of Physical Chemistry Letters, 2014, 5, 4162-4166.	4.6	13
27	Local probe investigation of electrocatalytic activity. Chemical Science, 2021, 12, 71-98.	7.4	13
28	Localized electrochemistry for the investigation and the modification of 2D materials. Applied Materials Today, 2017, 8, 116-124.	4.3	11
29	Bifunctional coatings: coupling an organic adhesion promoter with an anticorrosion inorganic layer. RSC Advances, 2019, 9, 24043-24049.	3.6	10
30	Steadyâ€State Electrocatalytic Activity Evaluation with the Redox Competition Mode of Scanning Electrochemical Microscopy: A Gold Probe and a Boronâ€Doped Diamond Substrate. ChemElectroChem, 2020, 7, 4633-4640.	3.4	10
31	Scanning Electrochemical Microscopy Approach Curves for Ring Microelectrodes in Pure Negative and Positive Feedback Mode. Journal of the Electrochemical Society, 2010, 157, F77.	2.9	9
32	Electronic Transport of MoS₂ Monolayered Flakes Investigated by Scanning Electrochemical Microscopy. ChemPhysChem, 2017, 18, 2777-2781.	2.1	7
33	Unraveling the Link between Catalytic Activity and Agglomeration State with Scanning Electrochemical Microscopy and Atomic Force Microscopy. Analytical Chemistry, 2022, 94, 1697-1704.	6.5	5