

# Catherine Debiemme-Chouvy

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1039229/publications.pdf>

Version: 2024-02-01

105  
papers

2,136  
citations

201658

27  
h-index

276858

41  
g-index

108  
all docs

108  
docs citations

108  
times ranked

2541  
citing authors

#	ARTICLE	IF	CITATIONS
1	Antimicrobial <i>N</i> -Halamine Polymers and Coatings: A Review of Their Synthesis, Characterization, and Applications. <i>Biomacromolecules</i> , 2013, 14, 585-601.	5.4	233
2	Template-free one-step electrochemical formation of polypyrrole nanowire array. <i>Electrochemistry Communications</i> , 2009, 11, 298-301.	4.7	106
3	EIS study of photo-induced modifications of nano-columnar TiO <sub>2</sub> films. <i>Electrochimica Acta</i> , 2009, 54, 1228-1232.	5.2	88
4	An insight into the overoxidation of polypyrrole materials. <i>Electrochemistry Communications</i> , 2008, 10, 947-950.	4.7	85
5	Electropolymerized Polypyrrole Nanowires for Hydrogen Gas Sensing. <i>Journal of Physical Chemistry C</i> , 2012, 116, 13388-13394.	3.1	77
6	X-ray photoemission investigation of the corrosion film formed on a polished Cu-13Sn alloy in aerated NaCl solution. <i>Applied Surface Science</i> , 2001, 174, 55-61.	6.1	50
7	A Reduced Polyoxomolybdenum Borophosphate Anion Related to the Wells-Dawson Clusters. <i>Journal of the American Chemical Society</i> , 2002, 124, 908-909.	13.7	50
8	New Insights into Pseudocapacitive Charge-Storage Mechanisms in Li-Birnessite Type MnO <sub>2</sub> Monitored by Fast Quartz Crystal Microbalance Methods. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26551-26559.	3.1	49
9	Mechanism of formation of templateless electrogenerated polypyrrole nanostructures. <i>Electrochimica Acta</i> , 2015, 179, 297-303.	5.2	48
10	Amorphous carbon nitride as an alternative electrode material in electroanalysis: Simultaneous determination of dopamine and ascorbic acid. <i>Analytica Chimica Acta</i> , 2013, 797, 30-39.	5.4	45
11	Electrosynthesis of polypyrrole nano/micro structures using an electrogenerated oriented polypyrrole nanowire array as framework. <i>Electrochimica Acta</i> , 2018, 268, 66-72.	5.2	44
12	Double Layer at [BuMeIm][Tf <sub>2</sub> N] Ionic Liquid-Pt or <sup>13</sup> C Material Interfaces. <i>Journal of Physical Chemistry C</i> , 2013, 117, 22915-22925.	3.1	43
13	Templateless electrogeneration of polypyrrole nanostructures: impact of the anionic composition and pH of the monomer solution. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9859.	10.3	43
14	Study by XPS of the chlorination of proteins aggregated onto tin dioxide during electrochemical production of hypochlorous acid. <i>Applied Surface Science</i> , 2007, 253, 5506-5510.	6.1	38
15	Electrochemical treatments using tin oxide anode to prevent biofouling. <i>Electrochimica Acta</i> , 2011, 56, 10364-10370.	5.2	37
16	Functionalizing Surfaces with Nickel Ions for the Grafting of Proteins. <i>Langmuir</i> , 2003, 19, 4138-4143.	3.5	36
17	Supersaturated Zincate Solutions: A Study of the Decomposition Kinetics. <i>Journal of the Electrochemical Society</i> , 1991, 138, 2538-2542.	2.9	35
18	Insight into the electroreduction of nitrate ions at a copper electrode, in neutral solution, after determination of their diffusion coefficient by electrochemical impedance spectroscopy. <i>Electrochimica Acta</i> , 2010, 55, 7341-7345.	5.2	34

#	ARTICLE	IF	CITATIONS
19	One-Step Electrochemical Synthesis of a Very Thin Overoxidized Polypyrrole Film. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, E24.	2.2	33
20	A very thin overoxidized polypyrrole membrane as coating for fast time response and selective H <sub>2</sub> O <sub>2</sub> amperometric sensor. <i>Biosensors and Bioelectronics</i> , 2010, 25, 2454-2457.	10.1	33
21	Relationship between the structure and the optical and electrical properties of reactively sputtered carbon nitride films. <i>Solid State Communications</i> , 2008, 145, 392-396.	1.9	31
22	Simultaneous detection of ascorbic acid and dopamine with electrochemically pretreated carbon nitride electrodes: Comparison with boron-doped diamond electrodes. <i>Electrochemistry Communications</i> , 2012, 24, 61-64.	4.7	31
23	Comparative Study of Basal-Plane Pyrolytic Graphite, Boron-Doped Diamond, and Amorphous Carbon Nitride Electrodes for the Voltammetric Determination of Furosemide in Pharmaceutical and Urine Samples. <i>Electrochimica Acta</i> , 2016, 197, 179-185.	5.2	31
24	Determination of the Diffusion Coefficient of Protons in Nafion Thin Films by <i>in situ</i> -Electrogravimetry. <i>Langmuir</i> , 2013, 29, 13655-13660.	3.5	30
25	Improvement and characterization of the electrochemical reactivity of amorphous carbon nitride electrodes. <i>Electrochemistry Communications</i> , 2005, 7, 496-499.	4.7	29
26	Nanocomposite coatings based on graphene and siloxane polymers deposited by atmospheric pressure plasma. Application to corrosion protection of steel. <i>Surface and Coatings Technology</i> , 2019, 377, 124928.	4.8	28
27	First Evidence of the Oxidation and Regeneration of Polysulfides at a GaAs Electrode, under Anodic Conditions. A Study by <i>in situ</i> UV-Visible Spectroelectrochemistry. <i>Journal of Physical Chemistry B</i> , 2004, 108, 18291-18296.	2.6	27
28	Thin films of amorphous nitrogenated carbon a-CN <sub>x</sub> : Electron transfer and surface reactivity. <i>Electrochimica Acta</i> , 2008, 53, 5752-5759.	5.2	26
29	Nanocomposite systems based on gold nanoparticles and thiometalates. From colloids to networks. <i>Journal of Materials Chemistry</i> , 2003, 13, 338.	6.7	25
30	Correlation between electrochemical reactivity and surface chemistry of amorphous carbon nitride films. <i>Surface and Interface Analysis</i> , 2006, 38, 719-722.	1.8	25
31	Photocurrent Generation in Carbon Nitride and Carbon Nitride/Conjugated Polymer Composites. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 4579-4587.	8.0	25
32	Investigation by EQCM of the electrosynthesis and the properties of polypyrrole films doped with sulphate ions and/or a Keggin-type heteropolyanion, SiMo <sub>12</sub> O <sub>40</sub> 4 <sup>-</sup> . <i>Electrochimica Acta</i> , 2006, 51, 3622-3631.	5.2	24
33	A New Antibacterial <i>N</i> -Halamine Coating Based on Polydopamine. <i>Langmuir</i> , 2020, 36, 11005-11014.	3.5	23
34	Oxygen electroreduction catalysis: effect of sulfur addition on cobalt tetraazaannulene precursors. <i>Electrochimica Acta</i> , 1999, 45, 721-729.	5.2	22
35	Contribution to the understanding of the CdTe and Cd <sub>1-x</sub> Zn <sub>x</sub> Te surface chemistry. <i>Journal of Crystal Growth</i> , 1998, 184-185, 213-217.	1.5	20
36	Microstructure and electronic investigations of carbon nitride films deposited by RF magnetron sputtering. <i>Thin Solid Films</i> , 2005, 482, 41-44.	1.8	20

#	ARTICLE	IF	CITATIONS
37	Proton transport properties in hybrid membranes investigated by ac-electrogravimetry. <i>Electrochemistry Communications</i> , 2010, 12, 1136-1139.	4.7	19
38	Ion intercalation dynamics of electrosynthesized mesoporous WO <sub>3</sub> thin films studied by multi-scale coupled electrogravimetric methods. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 14773-14787.	2.8	19
39	Local oxide growth on the n-GaAs surface studied by small area XPS. <i>Surface Science</i> , 1999, 433-435, 131-135.	1.9	18
40	Electrochemical (pre)treatments to prevent biofouling. <i>Current Opinion in Electrochemistry</i> , 2018, 11, 48-54.	4.8	18
41	Tuning Charge Storage Properties of Supercapacitive Electrodes Evidenced by In Situ Gravimetric and Viscoelastic Explorations. <i>Analytical Chemistry</i> , 2019, 91, 2885-2893.	6.5	16
42	X-ray photoelectron spectroscopy study of GaAs surface exposed to a rf hydrogen plasma. <i>Applied Physics Letters</i> , 1993, 62, 2254-2255.	3.3	15
43	Reactivity of III-V and II-VI semiconductors toward hydrogen: surface modification and evolution in air. <i>Applied Surface Science</i> , 1995, 84, 187-192.	6.1	15
44	Supersaturated Zincate Solutions: A Structural Study. <i>Journal of the Electrochemical Society</i> , 1995, 142, 1359-1364.	2.9	15
45	ac-Electrogravimetry study of ionic and solvent motion in polypyrrole films doped with an heteropolyanion, SiMo <sub>12</sub> O <sub>40</sub> <sup>4-</sup> . <i>Electrochimica Acta</i> , 2008, 53, 3836-3843.	5.2	15
46	Influence of electrochemical pre-treatment on highly reactive carbon nitride thin films deposited on stainless steel for electrochemical applications. <i>Electrochimica Acta</i> , 2012, 75, 131-138.	5.2	15
47	An Original Route to Immobilize an Organic Biocide onto a Transparent Tin Dioxide Electrode. <i>Langmuir</i> , 2007, 23, 3873-3879.	3.5	14
48	Electrodeposition of Polypyrrole in TiO <sub>2</sub> Nanotube Arrays by Pulsed-Light and Pulsed-Potential Methods. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26341-26350.	3.1	14
49	Electrochemical techniques for the elucidation of the interface structure of the n-InP/aqueous electrolyte junction. <i>Journal of Electroanalytical Chemistry</i> , 1994, 365, 283-287.	3.8	13
50	Understanding the energy storage mechanisms of poly(3,4-ethylenedioxythiophene)-coated silicon nanowires by electrochemical quartz crystal microbalance. <i>Materials Letters</i> , 2019, 240, 59-61.	2.6	13
51	Improvement of dark current of Ga(Al)Sb mesa diodes using (NH <sub>4</sub> ) <sub>2</sub> S treatment. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1994, 28, 374-378.	3.5	12
52	Detection of cadmium oxides on a CdTe substrate by X-AES. <i>Surface Science</i> , 1996, 352-354, 495-498.	1.9	12
53	Proton Insertion Properties in a Hybrid Membrane/Conducting Polymer Bilayer Investigated by AC Electrogravimetry. <i>Journal of the Electrochemical Society</i> , 2010, 157, F69.	2.9	11
54	Redox Switching of Heteropolyanions Entrapped in Polypyrrole Films Investigated by ac Electrogravimetry. <i>Langmuir</i> , 2012, 28, 13746-13757.	3.5	11

#	ARTICLE	IF	CITATIONS
55	One-pot electrosynthesis of ultrathin overoxidized poly(3,4-ethylenedioxythiophene) films. <i>Electrochimica Acta</i> , 2022, 401, 139472.	5.2	11
56	Porosity and Tellurium-Enrichment of Anodized p-Cd <sub>0.95</sub> Zn <sub>0.05</sub> Te. <i>Electrochemical and Solid-State Letters</i> , 1999, 2, 619.	2.2	10
57	First evidence of the antibacterial property of SnO <sub>2</sub> surface electrochemically modified in the presence of bovine serum albumin and chloride ions. <i>Electrochemistry Communications</i> , 2006, 8, 1115-1118.	4.7	10
58	Preventing Graphene from Restacking <i>via</i> Bioinspired Chemical Inserts: Toward a Superior 2D Micro-supercapacitor Electrode. <i>ACS Applied Nano Materials</i> , 2021, 4, 4964-4973.	5.0	10
59	Convective mass transport in ionic liquids studied by electrochemical and electrohydrodynamic impedance spectroscopy. <i>Electrochimica Acta</i> , 2013, 93, 32-43.	5.2	9
60	Insights into Redox Reactions and Ionic Transfers in Nickel/Iron Layered Double Hydroxide in Potassium Hydroxide. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3037-3049.	3.1	9
61	Surface Evolution of n-Type CdTe in Acidic Medium in the Presence of Ce <sup>4+</sup> Ions. <i>The Journal of Physical Chemistry</i> , 1995, 99, 15198-15207.	2.9	8
62	Electrocatalytic Reduction of HNO <sub>2</sub> by a Silicomolybdate Polyanion: A Differential Electrochemical Mass Spectrometry Study. <i>Electroanalysis</i> , 2007, 19, 259-262.	2.9	8
63	Evidence by Electrochemical Impedance Spectroscopy of Surface States Mediated SiMo <sub>12</sub> O <sub>40</sub> <sup>4-</sup> Reduction at an n-InP Electrode. <i>Journal of Physical Chemistry C</i> , 2008, 112, 18183-18188.	3.1	8
64	Characterization of a very thin overoxidized polypyrrole membrane: application to H <sub>2</sub> O <sub>2</sub> determination. <i>Surface and Interface Analysis</i> , 2010, 42, 1144-1147.	1.8	8
65	Electrochemical Characterisations of Ultra Thin Overoxidized Polypyrrole Films Obtained by One-Step Electrosynthesis. <i>Journal of the Electrochemical Society</i> , 2013, 160, D465-D470.	2.9	8
66	Copper electrodeposition under a weak magnetic field: effect on the texturing and properties of the deposits. <i>Journal of Applied Electrochemistry</i> , 2021, 51, 235-243.	2.9	8
67	Study of the interaction at rest potential between silicotungstic heteropolyanion solution and GaAs surface. <i>Applied Surface Science</i> , 1998, 135, 65-70.	6.1	7
68	Mise en Évidence des mécanismes d'injection de porteurs majoritaires à l'interface semiconducteur/Électrolyte. <i>Journal De Physique III</i> , 1994, 4, 273-291.	0.3	7
69	Electrochemical Behavior of n-Type CdTe in the Presence of a Mono-electronic Oxidizing Agent (Ce <sup>4+</sup> ). <i>Journal of the Electrochemical Society</i> , 1994, 141, 2409-2413.	2.9	6
70	Study of the reactions taking place at the GaAs electrode/SiMo <sub>12</sub> O <sub>40</sub> <sup>4-</sup> solution interface. <i>Electrochimica Acta</i> , 2002, 47, 1615-1621.	5.2	6
71	Evidence by EIS of the interaction between proteins and tin oxide electrode surface. <i>Electrochimica Acta</i> , 2010, 55, 6233-6238.	5.2	6
72	Comparative AFM nanoscratching tests in air of bulk copper and electrogenerated cuprous oxide films. <i>Surface Science</i> , 2011, 605, 121-130.	1.9	6

#	ARTICLE	IF	CITATIONS
73	Tuning Redox State and Ionic Transfers of Mg/Fe-Layered Double Hydroxide Nanosheets by Electrochemical and Electrogravimetric Methods. <i>Nanomaterials</i> , 2020, 10, 1832.	4.1	6
74	Laser vibrational excitation of radicals to prevent crystallinity degradation caused by boron doping in diamond. <i>Science Advances</i> , 2021, 7, .	10.3	6
75	Dissolution Rate of III-V Compound Oxides Influence of Cerium Species. <i>Journal of the Electrochemical Society</i> , 1991, 138, L65-L66.	2.9	5
76	XPS studies of oxide layers on InP after oxidation in the presence of Ce <sup>4+</sup> . <i>Surface and Interface Analysis</i> , 1992, 19, 393-396.	1.8	5
77	Behavior of p-Type GaAs in an Aerated Boric Acid Solution at the Open-Circuit Potential. Influence of the Presence of Co(II) Ions. <i>Journal of Physical Chemistry B</i> , 2001, 105, 4840-4845.	2.6	5
78	Surface films on HgCdTe and CdTe etched in ferricyanide solution. <i>Applied Surface Science</i> , 2001, 175-176, 579-584.	6.1	5
79	Anodic photodissolution of n-InP, under electroless conditions. <i>Electrochimica Acta</i> , 2004, 49, 3129-3136.	5.2	5
80	XPS and RBS characterizations of electrosynthesized polypyrrole films doped with a heteropolyanion, SiMo <sub>12</sub> O <sub>40</sub> <sup>4-</sup> . <i>Surface and Interface Analysis</i> , 2006, 38, 531-534.	1.8	5
81	Poly( <i>ortho</i> -phenylenediamine) overlaid fibrous carbon networks exhibiting a synergistic effect for enhanced performance in hybrid micro energy storage devices. <i>Journal of Materials Chemistry A</i> , 2021, 9, 10487-10496.	10.3	5
82	Anisotropic thermal conductivity and enhanced hardness of copper matrix composite reinforced with carbonized polydopamine. <i>Composites Communications</i> , 2022, 33, 101210.	6.3	5
83	Modification of GaAs surface stoichiometry and reactivity induced by a hydrogen plasma. <i>Applied Surface Science</i> , 1993, 65-66, 643-646.	6.1	4
84	Ce <sup>4+</sup> : a New Etching Agent for Cadmium Telluride. <i>Japanese Journal of Applied Physics</i> , 1995, 34, L1344-L1347.	1.5	4
85	Enrichment in tellurium during photodissolution on n-CdTe in sulfuric acid solution. <i>Electrochimica Acta</i> , 1997, 42, 211-221.	5.2	4
86	Advantage of Ultra Thin Overoxidized Polypyrrole Membrane in the Design of Amperometric Biosensor. <i>ECS Transactions</i> , 2010, 33, 21-24.	0.5	4
87	Charge Storage Properties of Nanostructured Poly(3,4-ethylenedioxythiophene) Electrodes Revealed by Advanced Electrogravimetry. <i>Nanomaterials</i> , 2019, 9, 962.	4.1	4
88	Optimization and Antibacterial Response of N-Halamine Coatings Based on Polydopamine. <i>Colloids and Interfaces</i> , 2022, 6, 9.	2.1	4
89	Reactivity of heteropolyanions toward GaAs compound. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2000, 18, 2441.	2.1	3
90	A New Application for Heteropolyanions: Etching of III-V Semiconductor Compounds. <i>Journal of Cluster Science</i> , 2002, 13, 313-331.	3.3	3

#	ARTICLE	IF	CITATIONS
91	Determination of surface amine groups on amorphous carbon nitride thin films using a one step covalent grafting of a redox probe. <i>Electrochimica Acta</i> , 2014, 136, 473-482.	5.2	3
92	N-halamine coatings formed via the electroreduction of in situ generated diazonium cations: toward antimicrobial surfaces. <i>Surface and Interface Analysis</i> , 2016, 48, 630-635.	1.8	3
93	Weakening of the hole injection effect proceeding from the reduction of ceric species after oxidation of indium phosphide compounds. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1991, 312, 301-307.	0.1	2
94	Electrochemical characterization of GaSb in the presence of cerium species. <i>Electrochimica Acta</i> , 1995, 40, 189-196.	5.2	2
95	Oxidation of Hg <sub>0.8</sub> Cd <sub>0.2</sub> Te in basic media: an XPS and spectroscopic ellipsometry study. <i>Journal of Crystal Growth</i> , 1998, 184-185, 1237-1241.	1.5	2
96	Selective electroless photoetching of n-type InP in acidic solution containing an heteropolyanion (SiMo <sub>12</sub> O <sub>40</sub> <sup>4-</sup> ). <i>Electrochemistry Communications</i> , 2002, 4, 97-101.	4.7	2
97	Facile and Green Reduction of Graphene Oxide by a Reduced Polyoxometalate and Formation of a Nanohybrid. <i>ChemPlusChem</i> , 2017, 82, 186-189.	2.8	2
98	Properties of Tin Films Electrodeposited under a Weak Magnetic Field. <i>Surface Engineering and Applied Electrochemistry</i> , 2018, 54, 593-598.	0.8	1
99	High Performance 2D Micro-Supercapacitor Electrode Composed of Graphene with Polydopamine As Inserts. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 536-536.	0.0	1
100	Interface evolution and performance degradation in LiCoO <sub>2</sub> composite battery electrodes monitored by advanced EQCM. <i>Electrochimica Acta</i> , 2022, 413, 140171.	5.2	1
101	Use of XPS to follow the evolution of a solution/solid interface: SiMo <sub>12</sub> O <sub>40</sub> <sup>4-</sup> acidic solution/GaAs interface. <i>Surface and Interface Analysis</i> , 2002, 34, 628-631.	1.8	0
102	Influence of Co(II) ions on the electrochemical behavior of n- and p-type GaAs electrodes in boric acid solution. <i>Electrochimica Acta</i> , 2002, 47, 2533-2541.	5.2	0
103	Functionalized Hybrid Organic-Inorganic Membranes Investigated by ac-Electrogravimetry. <i>ECS Transactions</i> , 2009, 25, 1115-1123.	0.5	0
104	Electrosynthesis and Characterisation of Antimicrobial Modified Protein Nanoaggregates. , 2012, , 291-309.		0
105	Templateless Electrosynthesis of Nanostructured PEDOT Films. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 707-707.	0.0	0