Renaud Demadrille

List of Publications by Year
in descending order

90 papers	3,830 citations	126708 33 h-index	128067 60 g-index
94 all docs	94 docs citations	94 times ranked	6234 citing authors

#	Article	IF	Citations
1	Electroactive materials for organic electronics: preparation strategies, structural aspects and characterization techniques. Chemical Society Reviews, 2010, 39, 2577.	18.7	419
2	Progress in understanding structure and transport properties of PEDOT-based materials: A critical review. Progress in Materials Science, 2020, 108, 100616.	16.0	355
3	Structure and Dopant Engineering in PEDOT Thin Films: Practical Tools for a Dramatic Conductivity Enhancement. Chemistry of Materials, 2016, 28, 3462-3468.	3.2	201
4	Fast Responding Exhaled-Breath Sensors Using WO₃ Hemitubes Functionalized by Graphene-Based Electronic Sensitizers for Diagnosis of Diseases. ACS Applied Materials & Interfaces, 2014, 6, 9061-9070.	4.0	170
5	A Robust Organic Dye for Dye Sensitized Solar Cells Based on Iodine/Iodide Electrolytes Combining High Efficiency and Outstanding Stability. Scientific Reports, 2014, 4, 4033.	1.6	168
6	Imaging the Carrier Photogeneration in Nanoscale Phase Segregated Organic Heterojunctions by Kelvin Probe Force Microscopy. Nano Letters, 2010, 10, 3337-3342.	4.5	124
7	Metal-free organic sensitizers with narrow absorption in the visible for solar cells exceeding 10% efficiency. Energy and Environmental Science, 2015, 8, 2010-2018.	15.6	124
8	Photochromic dye-sensitized solar cells with light-driven adjustable optical transmission and power conversion efficiency. Nature Energy, 2020, 5, 468-477.	19.8	120
9	Remarkable Tuning of the Coordination and Photophysical Properties of Lanthanide Ions in a Series of Tetrazoleâ€Based Complexes. Chemistry - A European Journal, 2009, 15, 9458-9476.	1.7	112
10	All-Polymeric Flexible Transparent Heaters. ACS Applied Materials & Interfaces, 2017, 9, 27250-27256.	4.0	108
11	Lanthanide Complexes Based on Î²-Diketonates and a Tetradentate Chromophore Highly Luminescent as Powders and in Polymers. Inorganic Chemistry, 2013, 52, 14382-14390.	1.9	94
12	Internal Structure of InP/ZnS Nanocrystals Unraveled by High-Resolution Soft X-ray Photoelectron Spectroscopy. ACS Nano, 2010, 4, 4799-4805.	7.3	93
13	Fluorenoneâ€Based Molecules for Bulkâ€Heterojunction Solar Cells: Synthesis, Characterization, and Photovoltaic Properties. Advanced Functional Materials, 2008, 18, 3444-3453.	7.8	91
14	Efficient Sensitization of Lanthanide Luminescence by Tetrazole-Based Polydentate Ligands. Inorganic Chemistry, 2008, 47, 3952-3954.	1.9	89
15	Carbodithioate-Containing Oligo- and Polythiophenes for Nanocrystals' Surface Functionalization. Chemistry of Materials, 2006, 18, 4817-4826.	3.2	67
16	Fluorenone core donorâ€“acceptorâ€“donor Ï€-conjugated molecules end-capped with dendritic oligo(thiophene)s: synthesis, liquid crystalline behaviour, and photovoltaic applications. Journal of Materials Chemistry, 2011, 21, 5238.	6.7	67
17	Amorphous Zinc Stannate (Zn₂SnO₄) Nanofibers Networks as Photoelectrodes for Organic Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2013, 23, 3146-3155.	7.8	67
18	Self-assembly of highly luminescent lanthanide complexes promoted by pyridine-tetrazolate ligands. Dalton Transactions, 2012, 41, 1268-1277.	1.6	62

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19	High-Resolution Kelvin Probe Force Microscopy Imaging of Interface Dipoles and Photogenerated Charges in Organic Donorâ€“Acceptor Photovoltaic Blends. ACS Nano, 2016, 10, 739-746.	7.3	57
20	Benzothiadiazole-based photosensitizers for efficient and stable dye-sensitized solar cells and 8.7% efficiency semi-transparent mini-modules. Sustainable Energy and Fuels, 2021, 5, 144-153.	2.5	48
21	Regiochemically Well-Defined Fluorenoneâ^'Alkylthiophene Copolymers:Â Synthesis, Spectroscopic Characterization, and Their Postfunctionalization with Oligoaniline. Macromolecules, 2003, 36, 7045-7054.	2.2	47
22	Plastic Solar Cells Based on Fluorenone-Containing Oligomers and Regioregular Alternate Copolymers. Advanced Functional Materials, 2005, 15, 1547-1552.	7.8	45
23	Conjugated alternating copolymer of dialkylquaterthiophene and fluorenone: synthesis, characterisation and photovoltaic properties. Journal of Materials Chemistry, 2007, 17, 4661.	6.7	44
24	Low Voltage Operating Field Effect Transistors with Composite In₂O₃â€“ZnOâ€“ZnGa₂O₄ Nanofiber Network as Active Channel Layer. ACS Nano, 2014, 8, 2318-2327.	7.3	44
25	Phosphorescent Binuclear Iridium Complexes Based on Terpyridineâ€“Carboxylate: An Experimental and Theoretical Study. Inorganic Chemistry, 2011, 50, 8197-8206.	1.9	42
26	Multiscale Scanning Tunneling Microscopy Study of Self-Assembly Phenomena in Two-Dimensional Polycrystals of Ï€-Conjugated Polymers: The Case of Regioregular Poly(dioctylbithiophene-alt-fluorenone). Advanced Materials, 2004, 16, 2087-2092.	11.1	39
27	Side chain engineering of organic sensitizers for dye-sensitized solar cells: a strategy to improve performances and stability. Journal of Materials Chemistry A, 2017, 5, 6122-6130.	5.2	39
28	Two-Dimensional Self-Assemblies of Thiopheneâ^'Fluorenone Conjugated Oligomers on Graphite:â€‰ A Joint STM and Molecular Modeling Study. Journal of Physical Chemistry C, 2008, 112, 6850-6859.	1.5	38
29	Work function tuning for flexible transparent electrodes based on functionalized metallic single walled carbon nanotubes. Carbon, 2012, 50, 3459-3464.	5.4	37
30	Electrospun materials for solar energy conversion: innovations and trends. Journal of Materials Chemistry C, 2016, 4, 10173-10197.	2.7	37
31	Application of a Novel Refinement Method for Accurate Determination of Chemical Diffusion Coefficients in Electroactive Materials by Potential Step Technique. Journal of the Electrochemical Society, 2005, 152, E61.	1.3	36
32	Increasing the Efficiency of Organic Dyeâ€Sensitized Solar Cells over 10.3% Using Locally Ordered Inverse Opal Nanostructures in the Photoelectrode. Advanced Functional Materials, 2018, 28, 1706291.	7.8	36
33	Activation Energy of Organic Cation Rotation in CH₃NH₃PbI₃ and CD₃NH₃PbI₃: Quasi-Elastic Neutron Scattering Measurements and First-Principles Analysis Including Nuclear Quantum Effects. Journal of Physical Chemistry Letters, 2018, 9, 3969-3977.	2.1	34
34	Influence of polymorphism on charge transport properties in isomers of fluorenone-based liquid crystalline semiconductors. Chemical Communications, 2012, 48, 3209.	2.2	33
35	Impact of Morphology on Charge Carrier Transport and Thermoelectric Properties of Nâ€Type FBDOPVâ€Based Polymers. Advanced Functional Materials, 2020, 30, 2000449.	7.8	33
36	Spectroscopic characterisation and photodegradation studies of photochromic spiro[fluorene-9,3â€²-[3â€²H]-naphtho[2,1-b]pyrans]. Journal of Photochemistry and Photobiology A: Chemistry, 2004, 168, 143-152.	2.0	29

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37	Mixed alkylthiophene-based heterocyclic polymers containing oxadiazole units via electrochemical polymerisation: spectroscopic, electrochemical and spectroelectrochemical properties. New Journal of Chemistry, 2005, 29, 707.	1.4	29
38	Visible and near-infrared organic photosensitizers comprising isoindigo derivatives as chromophores: synthesis, optoelectronic properties and factors limiting their efficiency in dye solar cells. Journal of Materials Chemistry A, 2018, 6, 10074-10084.	5.2	27
39	UV-Vis-NIR spectroelectrochemical and in situ conductance studies of unusual stability of n- and p-doped poly(dimethyldioctylquaterthiophene-alt-oxadiazole) under high cathodic and anodic polarizations. Physical Chemistry Chemical Physics, 2008, 10, 1032-1042.	1.3	26
40	Composites of Double-Walled Carbon Nanotubes with bis-Quaterthiophene-Fluorenone Conjugated Oligomer: Spectroelectrochemical and Photovoltaic Properties. Journal of Physical Chemistry C, 2009, 113, 17347-17354.	1.5	25
41	Photo-Carrier Multi-Dynamical Imaging at the Nanometer Scale in Organic and Inorganic Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 31460-31468.	4.0	24
42	Failure and Stabilization Mechanisms in Multiply Cycled Conducting Polymers for Energy Storage Devices. Journal of Physical Chemistry C, 2010, 114, 16823-16831.	1.5	23
43	Revisiting doping mechanisms of n-type organic materials with N-DMBI for thermoelectric applications: Photo-activation, thermal activation, and air stability. Applied Physics Letters, 2021, 118, .	1.5	23
44	Unusually high stability of a poly(alkylquaterthiophene-alt-oxadiazole) conjugated copolymer in its n and p-doped states. Chemical Communications, 2006, , 3299.	2.2	21
45	Insight into the Degradation Mechanisms of Highly Conductive Poly(3,4-ethylenedioxythiophene) Thin Films. ACS Applied Polymer Materials, 2020, 2, 2686-2695.	2.0	21
46	Electrodeposited ZnO nanowires as photoelectrodes in solid-state organic dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2014, 16, 7472-7480.	1.3	20
47	Synthesis, optoelectronic properties and photovoltaic performances of wide band-gap copolymers based on dibenzosilole and quinoxaline units, rivals to P3HT. Polymer Chemistry, 2016, 7, 4160-4175.	1.9	20
48	Spray-coated PEDOT:OTf films: thermoelectric properties and integration into a printed thermoelectric generator. Materials Chemistry Frontiers, 2020, 4, 2054-2063.	3.2	19
49	Bromination of the benzothioxanthene Bloc: toward new Ï€-conjugated systems for organic electronic applications. Journal of Materials Chemistry C, 2018, 6, 761-766.	2.7	18
50	Poly(alkylthiophene) with Pendant Dianiline Groups via Postpolymerization Functionalization:Â Preparation, Spectroscopic, and Spectroelectrochemical Characterization. Macromolecules, 2004, 37, 769-777.	2.2	17
51	Unusually stable and highly electrochemically reversible n-doping of regioregular alternate copolymer of dialkylthiophene and fluorenone. Electrochemistry Communications, 2006, 8, 993-998.	2.3	16
52	Oligothiophene-functionalized CdSe nanocrystals: preparation and electrochemical properties. Mikrochimica Acta, 2008, 160, 335-344.	2.5	16
53	Preparation and spectroelectrochemical behaviour of a new alternate copolymer of 3,3â€²-di-n-octyl-2,2â€²-bithiophene and fluoren-9-one. New Journal of Chemistry, 2003, 27, 1479-1484.	1.4	15
54	Probing the Local Conformation within Ï€â€Conjugated Oneâ€dimensional Supramolecular Stacks using Frequency Modulation Atomic Force Microscopy. Advanced Materials, 2009, 21, 4124-4129.	11.1	15

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55	Implementation of data-cube pumpâ€“probe KPFM on organic solar cells. Beilstein Journal of Nanotechnology, 2020, 11, 323-337.	1.5	14
56	The effect of chain microstructure on electrochemical and spectroelectrochemical properties of fluorenoneâ€“dialkyl bithiophene alternate copolymers. Electrochimica Acta, 2005, 50, 1597-1603.	2.6	13
57	Dithienylpyrazine-based photosensitizers: Effect of swapping a connecting unit on optoelectronic properties and photovoltaic performances. Dyes and Pigments, 2017, 146, 352-360.	2.0	11
58	Water content control during solution-based polymerization: a key to reach extremely high conductivity in PEDOT thin films. Journal of Materials Chemistry C, 2020, 8, 17254-17260.	2.7	11
59	Pushâ€“Pull Zinc Phthalocyanine Bearing Hexa-Tertiary Substituted Carbazolyl Donor Groups for Dye-Sensitized Solar Cells. Molecules, 2020, 25, 1692.	1.7	11
60	Random and Regioregular Thiophene-Based Copolymers Containing Oligoaniline Side Chains: Synthesis, Spectroscopic and Spectroelectrochemical Investigations. Synthetic Metals, 2005, 153, 137-140.	2.1	10
61	Nonâ€Fullerene Acceptors with an Extended Ï€â€Conjugated Core: Third Components in Ternary Blends for Highâ€Efficiency, Postâ€Treatmentâ€Free Organic Solar Cells. ChemSusChem, 2021, 14, 3502-3510.	3.6	10
62	Electrical and Mechanical Properties of Intrinsically Flexible and Stretchable PEDOT Polymers for Thermotherapy. ACS Applied Polymer Materials, 2021, 3, 5942-5949.	2.0	10
63	On the Photoâ€Induced Chargeâ€Carrier Generation within Monolayers of Selfâ€Assembled Organic Donorâ€“Acceptor Dyads. Advanced Materials, 2014, 26, 6416-6422.	11.1	9
64	Functional panchromatic BODIPY dyes with near-infrared absorption: design, synthesis, characterization and use in dye-sensitized solar cells. Beilstein Journal of Organic Chemistry, 2019, 15, 1758-1768.	1.3	8
65	Local contact potential difference of molecular self-assemblies investigated by Kelvin probe force microscopy. Applied Physics Letters, 2011, 99, 233102.	1.5	7
66	Organic dyes for the sensitization of nanostructured ZnO photoanodes: effect of the anchoring functions. RSC Advances, 2015, 5, 68929-68938.	1.7	7
67	Hidden surface photovoltages revealed by pump probe KPFM. Nanotechnology, 2022, 33, 225401.	1.3	7
68	Solution versus solid-state electropolymerization of regioregular conjugated fluorenoneâ€“thienylene vinylene macromonomersâ€”voltammetric and spectroelectrochemical investigations. Journal of Solid State Electrochemistry, 2007, 11, 1051-1058.	1.2	6
69	Multiple Hydrogen-Bond-Assisted Self-Assembly of Semiconductor Nanocrystals on Silicon Surfaces and Nanowires. Journal of Physical Chemistry C, 2009, 113, 21389-21395.	1.5	6
70	Qplus AFM driven nanostencil. Review of Scientific Instruments, 2011, 82, 063706.	0.6	6
71	Unraveling the mechanism behind air instability in thin semiconducting polymer layers p-doped with molybdenum dithiolene complexes. Synthetic Metals, 2020, 260, 116251.	2.1	6
72	Characterization of Photochromic Dye Solar Cells Using Small-Signal Perturbation Techniques. ACS Applied Energy Materials, 2021, 4, 8941-8952.	2.5	6

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73	High performance encapsulation of transparent conductive polymers by spatial atomic layer deposition. Synthetic Metals, 2022, 284, 116995.	2.1	6
74	Alternative Binary and Ternary Metal Oxides for Dye- and Quantum Dot-Sensitized Solar Cells. , 2018, , 85-115.		5
75	Pi-Conjugated Molecular Nanowire Stacks Investigated by Frequency-Modulation Atomic Force Microscopy in the qPlus Configuration. Applied Physics Express, 2009, 2, 091501.	1.1	5
76	Photochromic Naphthopyran Dyes Incorporating a Benzene, Thiophene, or Furan Spacer: Effect on Photochromic, Optoelectronic, and Photovoltaic Properties in Dyeâ€Sensitized Solar Cells. Solar Rrl, 0, , 2100929.	3.1	5
77	Atomic force microscopy imaging using a tip-on-chip: Opening the door to integrated near field nanotools. Review of Scientific Instruments, 2010, 81, 093707.	0.6	4
78	Synthesis, optoelectronic and photovoltaic properties of conjugated alternating copolymers incorporating 2,1,3-benzothiadiazole or fluorenone units: a comparative study. RSC Advances, 2014, 4, 15236-15244.	1.7	4
79	An Important Step toward More Efficient and Stable Dye-Sensitized Solar Cells. CheM, 2018, 4, 2267-2268.	5.8	4
80	On the Photodegradation of Some 2H-Chromene Derivatives in Fluid Solution or in Polyurethane Matrix. Bulletin of the Chemical Society of Japan, 2011, 84, 552-561.	2.0	3
81	Fabrication of multiscale electrodes on organic photovoltaic thin films and in situ electrical characterization by nanostencil combined with Qplus AFM. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 021803.	0.6	3
82	Pushâ€“pull organic dyes and dye-catalyst assembly featuring a benzothiadiazole unit for photoelectrochemical hydrogen production. Sustainable Energy and Fuels, 2022, 6, 3565-3572.	2.5	3
83	Comparative study of optoelectronic properties of various Europium complexes used in organic electroluminescent structures. , 2006, , .		2
84	1H and13C NMR chemical shift assignment of some 3H-naphtho[2,1-b]pyrans. Magnetic Resonance in Chemistry, 1999, 37, 328-330.	1.1	1
85	Editorsâ€™ choice collection on organic photovoltaics: back in the game. Materials Advances, 2021, 2, 1111-1112.	2.6	1
86	Editorsâ€™ choice collection on organic photovoltaics: back in the game. Journal of Materials Chemistry C, 2021, 9, 1124-1125.	2.7	1
87	Polythiophene Derivatives -Based Materials for Organic Field Effect Transistors and Photovoltaic Cells. , 2006, , .		0
88	A Special Focus on the Photodegradation of 6â€²-Indolino-1-isobutyl-3,3-dimethylspiro[indoline-2,3â€²-[3H]naphtho[2,1-b][1,4]oxazine]. Bulletin of the Chemical Society of Japan, 2012, 85, 1048-1052.	2.0	0
89	Des cellules solaires dont la transparence et la production dâ€™Ã©nergie sâ€™adaptent aux conditions dâ€™ensoleillement. , 2022, , 28-33.	0.1	0
90	Electrodeposition of Simonkolleite as a Low-Temperature Route to Crystalline ZnO Films for Dye-Sensitized Solar Cells. Journal of the Electrochemical Society, 2022, 169, 042504.	1.3	0