

Ramon Tena-Zaera

List of Publications by Year in descending order

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98
papers

5,945
citations

66343

42
h-index

71685

76
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102
all docs

102
docs citations

102
times ranked

8216
citing authors

#	ARTICLE	IF	CITATIONS
1	ZnO-Based Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2012, 116, 11413-11425.	3.1	520
2	CdSe-Sensitized p-CuSCN/Nanowire n-ZnO Heterojunctions. <i>Advanced Materials</i> , 2005, 17, 1512-1515.	21.0	419
3	Determination of carrier density of ZnO nanowires by electrochemical techniques. <i>Applied Physics Letters</i> , 2006, 89, 203117.	3.3	277
4	Implications of the Negative Capacitance Observed at Forward Bias in Nanocomposite and Polycrystalline Solar Cells. <i>Nano Letters</i> , 2006, 6, 640-650.	9.1	217
5	Organo-metal halide perovskite-based solar cells with CuSCN as the inorganic hole selective contact. <i>Journal of Materials Chemistry A</i> , 2014, 2, 12754-12760.	10.3	174
6	Role of Chloride Ions on Electrochemical Deposition of ZnO Nanowire Arrays from O_2 Reduction. <i>Journal of Physical Chemistry C</i> , 2007, 111, 16706-16711.	3.1	154
7	Properties of the oxygen vacancy in ZnO. <i>Applied Physics A: Materials Science and Processing</i> , 2007, 88, 147-151.	2.3	153
8	Conversion of ZnO Nanowires into Nanotubes with Tailored Dimensions. <i>Chemistry of Materials</i> , 2008, 20, 6633-6637.	6.7	153
9	A Sulfide/Polysulfide-Based Ionic Liquid Electrolyte for Quantum Dot-Sensitized Solar Cells. <i>Journal of the American Chemical Society</i> , 2011, 133, 20156-20159.	13.7	153
10	Electrochemical deposition of ZnO nanowire arrays with tailored dimensions. <i>Journal of Electroanalytical Chemistry</i> , 2008, 621, 171-177.	3.8	147
11	PEDOT Nanotube Arrays as High Performing Counter Electrodes for Dye Sensitized Solar Cells. Study of the Interactions Among Electrolytes and Counter Electrodes. <i>Advanced Energy Materials</i> , 2011, 1, 781-784.	19.5	142
12	Electrodeposition of ZnO nanowires with controlled dimensions for photovoltaic applications: Role of buffer layer. <i>Thin Solid Films</i> , 2007, 515, 8553-8557.	1.8	139
13	Multicolor Electrochromics: Rainbow-Like Devices. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 14795-14801.	8.0	126
14	Electrodeposition of Antimony Selenide Thin Films and Application in Semiconductor Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 2836-2841.	8.0	113
15	Effect of the Chemical Nature of the Anions on the Electrodeposition of ZnO Nanowire Arrays. <i>Journal of Physical Chemistry C</i> , 2008, 112, 5736-5741.	3.1	110
16	ZnO nanowire arrays: Optical scattering and sensitization to solar light. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	98
17	Fabrication and characterization of ZnO nanowires/CdSe/CuSCN eta-solar cell. <i>Comptes Rendus Chimie</i> , 2006, 9, 717-729.	0.5	97
18	High Capacity NaO_2 Batteries: Key Parameters for Solution-Mediated Discharge. <i>Journal of Physical Chemistry C</i> , 2016, 120, 20068-20076.	3.1	96

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19	Annealing Effects on the Physical Properties of Electrodeposited ZnO/CdSe Core-Shell Nanowire Arrays. <i>Chemistry of Materials</i> , 2007, 19, 1626-1632.	6.7	90
20	All-in-One Gel-Based Electrochromic Devices: Strengths and Recent Developments. <i>Materials</i> , 2018, 11, 414.	2.9	89
21	ZnO/CdTe/CuSCN, a promising heterostructure to act as inorganic eta-solar cell. <i>Thin Solid Films</i> , 2005, 483, 372-377.	1.8	87
22	Graphene quantum dot membranes as fluorescent sensing platforms for Cr (VI) detection. <i>Carbon</i> , 2016, 109, 658-665.	10.3	87
23	Influence of the Potassium Chloride Concentration on the Physical Properties of Electrodeposited ZnO Nanowire Arrays. <i>Journal of Physical Chemistry C</i> , 2008, 112, 16318-16323.	3.1	82
24	Insights on the working principles of flexible and efficient ITO-free organic solar cells based on solution processed Ag nanowire electrodes. <i>Solar Energy Materials and Solar Cells</i> , 2012, 102, 148-152.	6.2	82
25	Colloidal PbS and PbSeS Quantum Dot Sensitized Solar Cells Prepared by Electrophoretic Deposition. <i>Journal of Physical Chemistry C</i> , 2012, 116, 16391-16397.	3.1	81
26	Modified Fullerenes for Efficient Electron Transport Layer-Free Perovskite/Fullerene Blend-Based Solar Cells. <i>ChemSusChem</i> , 2017, 10, 2023-2029.	6.8	79
27	Colorless to Neutral Color Electrochromic Devices Based on Asymmetric Viologens. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 29619-29627.	8.0	78
28	Multiresponsive PEDOT-Ionic Liquid Materials for the Design of Surfaces with Switchable Wettability. <i>Advanced Functional Materials</i> , 2009, 19, 3326-3333.	14.9	73
29	New insight into growth mechanism of ZnO nanowires electrodeposited from nitrate-based solutions. <i>Electrochimica Acta</i> , 2012, 69, 181-189.	5.2	73
30	Electrodeposition and impedance spectroscopy characterization of ZnO nanowire arrays. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 2345-2350.	1.8	69
31	ZnO solar cells with an indoline sensitizer: a comparison between nanoparticulate films and electrodeposited nanowire arrays. <i>Energy and Environmental Science</i> , 2011, 4, 3400.	30.8	67
32	Electron Transport Layer-Free Solar Cells Based on Perovskite/Fullerene Blend Films with Enhanced Performance and Stability. <i>ChemSusChem</i> , 2016, 9, 2679-2685.	6.8	60
33	Inverted ITO-free organic solar cells based on p and n semiconducting oxides. New designs for integration in tandem cells, top or bottom detecting devices, and photovoltaic windows. <i>Energy and Environmental Science</i> , 2011, 4, 453-458.	30.8	58
34	Colorless to Black/Gray Electrochromic Devices Based on Single Alkyl-1-Aryl Asymmetric Viologen-Modified Monolayered Electrodes. <i>Advanced Optical Materials</i> , 2017, 5, 1600989.	7.3	57
35	Efficient Regular Perovskite Solar Cells Based on Pristine [70]Fullerene as Electron-Selective Contact. <i>ChemSusChem</i> , 2016, 9, 1263-1270.	6.8	54
36	Correlative infrared-electron nanoscopy reveals the local structure-conductivity relationship in zinc oxide nanowires. <i>Nature Communications</i> , 2012, 3, 1131.	12.8	53

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37	Determination of Interfacial Charge Transfer Rate Constants in Perovskite Solar Cells. <i>ChemSusChem</i> , 2016, 9, 1647-1659.	6.8	52
38	Electrochemical synthesis of poly(3,4-ethylenedioxythiophene) nanotube arrays using ZnO templates. <i>Journal of Polymer Science Part A</i> , 2010, 48, 4648-4653.	2.3	51
39	Electrochemical deposition of ZnO in a room temperature ionic liquid: 1-Butyl-1-methylpyrrolidinium bis(trifluoromethane sulfonyl)imide. <i>Electrochemistry Communications</i> , 2009, 11, 2184-2186.	4.7	48
40	Positron annihilation lifetime spectroscopy of ZnO bulk samples. <i>Physical Review B</i> , 2007, 76, .	3.2	47
41	Energetically deep defect centers in vapor-phase grown zinc oxide. <i>Applied Physics A: Materials Science and Processing</i> , 2007, 88, 141-145.	2.3	47
42	Modeling and characterization of extremely thin absorber (eta) solar cells based on ZnO nanowires. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 7162.	2.8	45
43	Attachment of Protoporphyrin Dyes to Nanostructured ZnO Surfaces: Characterization by Near Edge X-ray Absorption Fine Structure Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2011, 115, 18195-18201.	3.1	41
44	Passivation of ZnO Nanowire Guests and 3D Inverse Opal Host Photoanodes for Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2014, 4, 1400217.	19.5	37
45	Physicochemical Phenomena and Application in Solar Cells of Perovskite:Fullerene Films. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2893-2902.	4.6	37
46	Anharmonic effects in ZnO optical phonons probed by Raman spectroscopy. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	35
47	NiO cathodic electrochemical deposition from an aprotic ionic liquid: Building metal oxide n-p heterojunctions. <i>Electrochimica Acta</i> , 2012, 71, 39-43.	5.2	35
48	Plastic electrochromic devices based on viologen-modified TiO2 films prepared at low temperature. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 624-635.	6.2	34
49	Localized versus delocalized states: Photoluminescence from electrochemically synthesized ZnO nanowires. <i>Journal of Applied Physics</i> , 2009, 106, 054304.	2.5	33
50	Novel ZnO nanostructured electrodes for higher power conversion efficiencies in polymeric solar cells. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 20871.	2.8	32
51	Electrodeposited NiO anode interlayers: Enhancement of the charge carrier selectivity in organic solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2013, 117, 564-568.	6.2	32
52	ZnO/ZnO Core-Shell Nanowire Array Electrodes: Blocking of Recombination and Impressive Enhancement of Photovoltage in Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2013, 117, 13365-13373.	3.1	32
53	Electrochemical reduction of O2 in 1-butyl-1-methylpyrrolidinium bis(trifluoromethanesulfonyl)imide ionic liquid containing Zn ²⁺ cations: deposition of non-polar oriented ZnO nanocrystalline films. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 13433.	2.8	30
54	Electrochemical Reduction of Oxygen in Aprotic Ionic Liquids Containing Metal Cations: A Case Study on the Na ₂ O system. <i>ChemSusChem</i> , 2017, 10, 1616-1623.	6.8	30

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55	Development of ZnO nanowire based CdTe thin film solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 160, 107-115.	6.2	30
56	Quantum and Classical Molecular Dynamics of Ionic Liquid Electrolytes for Na/Li-based Batteries: Molecular Origins of the Conductivity Behavior. <i>ChemPhysChem</i> , 2016, 17, 2473-2481.	2.1	29
57	ZnO-ionic liquid hybrid films: electrochemical synthesis and application in dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2013, 1, 10173.	10.3	27
58	Study of the ZnO crystal growth by vapour transport methods. <i>Journal of Crystal Growth</i> , 2004, 270, 711-721.	1.5	26
59	Fullerene-Based Materials as Hole-Transporting/Electron-Blocking Layers: Applications in Perovskite Solar Cells. <i>Chemistry - A European Journal</i> , 2018, 24, 8524-8529.	3.3	25
60	Dimethylformamide-free processing of halide perovskite solar cells from electrodeposited PbI ₂ precursor films. <i>Electrochimica Acta</i> , 2017, 246, 1193-1199.	5.2	24
61	Schottky diodes based on electrodeposited ZnO nanorod arrays for humidity sensing at room temperature. <i>Sensors and Actuators B: Chemical</i> , 2012, 174, 274-278.	7.8	23
62	Molecular Dynamics Analysis of Charge Transport in Ionic-Liquid Electrolytes Containing Added Salt with Mono, Di, and Trivalent Metal Cations. <i>ChemPhysChem</i> , 2018, 19, 1665-1673.	2.1	23
63	Laponite-Based Surfaces with Holistic Self-Cleaning Functionality by Combining Antistatics and Omniphobicity. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 39078-39085.	8.0	22
64	Nanomorphology influence on the light conversion mechanisms in highly efficient diketopyrrolopyrrole based organic solar cells. <i>Organic Electronics</i> , 2013, 14, 326-334.	2.6	21
65	Zinc oxide nanocrystals as electron injecting building blocks for plastic light sources. <i>Journal of Materials Chemistry</i> , 2012, 22, 4916.	6.7	20
66	Ultrafast characterization of the electron injection from CdSe quantum dots and dye N719 co-sensitizers into TiO ₂ using sulfide based ionic liquid for enhanced long term stability. <i>Electrochimica Acta</i> , 2013, 100, 35-43.	5.2	20
67	Consecutive anchoring of symmetric viologens: Electrochromic devices providing colorless to neutral-color switching. <i>Solar Energy Materials and Solar Cells</i> , 2018, 177, 110-119.	6.2	20
68	One-step wet chemical deposition of NiO from the electrochemical reduction of nitrates in ionic liquid based electrolytes. <i>Electrochimica Acta</i> , 2013, 96, 261-267.	5.2	19
69	Co-Solvent Effect in the Processing of the Perovskite:Fullerene Blend Films for Electron Transport Layer-Free Solar Cells. <i>Journal of Physical Chemistry C</i> , 2018, 122, 2512-2520.	3.1	19
70	MOCVD growth of CdTe on glass: analysis of in situ post-growth annealing. <i>Journal of Crystal Growth</i> , 2004, 262, 19-27.	1.5	18
71	Spray-Pyrolyzed ZnO as Electron Selective Contact for Long-Term Stable Planar CH ₃ NH ₃ PbI ₃ Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 4057-4064.	5.1	18
72	Ni/NiO Based 3D Core-Shell Foam Anode for Lithium Ion Batteries. <i>Electrochimica Acta</i> , 2015, 180, 16-21.	5.2	17

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73	Picosecond Capture of Photoexcited Electrons Improves Photovoltaic Conversion in MAPbI ₃ :C ₇₀ -Doped Planar and Mesoporous Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1801496.	21.0	17
74	Incorporating paper matrix into flexible devices based on liquid electrochromic mixtures: Enhanced robustness, durability and multi-color versatility. <i>Solar Energy Materials and Solar Cells</i> , 2017, 167, 22-27.	6.2	16
75	Unravelling fullerene-perovskite interactions introduces advanced blend films for performance-improved solar cells. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2779-2787.	4.9	16
76	Structural characterization of CdTe layers grown on (0001) sapphire by MOCVD. <i>Journal of Crystal Growth</i> , 2004, 270, 309-315.	1.5	15
77	Numerical study of the ZnO growth by MOCVD. <i>Journal of Crystal Growth</i> , 2004, 264, 237-245.	1.5	14
78	Cathodic electrochemical deposition of CuI from room temperature ionic liquid-based electrolytes. <i>Electrochemistry Communications</i> , 2015, 59, 20-23.	4.7	13
79	ZnO/CdSe nanowires and nanotubes: formation, properties and applications. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, 1596-1600.	0.8	12
80	Dense TiO ₂ films grown by sol-gel dip coating on glass, F-doped SnO ₂ , and silicon substrates. <i>Journal of Materials Research</i> , 2013, 28, 385-393.	2.6	12
81	Control of the recombination rate by changing the polarity of the electrolyte in dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 21513-21523.	2.8	12
82	Optoelectronic Characterization of ZnO Nanorod Arrays Obtained by Pulse Electrodeposition. <i>Journal of the Electrochemical Society</i> , 2018, 165, D595-D603.	2.9	12
83	Negative U-properties of the oxygen-vacancy in ZnO. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006, 3, 997-1000.	0.8	11
84	Intrinsic and extrinsic point-defects in vapor transport grown ZnO bulk crystals. <i>Physica B: Condensed Matter</i> , 2006, 376-377, 767-770.	2.7	11
85	Growth of ZnO crystals by vapour transport: Some ways to act on physical properties. <i>Crystal Research and Technology</i> , 2006, 41, 742-747.	1.3	11
86	A new approach to the growth of ZnO by vapour transport. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 1106-1114.	0.8	10
87	Effect of different photoanode nanostructures on the initial charge separation and electron injection process in dye sensitized solar cells: A photophysical study with indoline dyes. <i>Materials Chemistry and Physics</i> , 2016, 170, 218-228.	4.0	10
88	Electrochemical Deposition of Bi ₂ S ₃ Thin Films Using Dimethylsulfoxide as a Solvent. <i>Journal of the Electrochemical Society</i> , 2007, 154, D669.	2.9	8
89	Ionic liquid-based electrodeposition of ZnS:nano-MoS ₂ composite films with self-lubricating properties. <i>Surface and Coatings Technology</i> , 2019, 374, 957-965.	4.8	8
90	Face-Selective Etching of ZnO during Attachment of Dyes. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18414-18422.	3.1	7

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91	Nanophotoactivity of Porphyrin Functionalized Polycrystalline ZnO Films. ACS Applied Materials & Interfaces, 2016, 8, 16783-16790.	8.0	7
92	Numerical study of the growth conditions in an MOCVD reactor: application to the epitaxial growth of HgTe. Journal of Crystal Growth, 2002, 240, 124-134.	1.5	6
93	Photoelectrochemical texturization of n-type multicrystalline silicon. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 1260-1265.	1.8	4
94	Efficient Regular Perovskite Solar Cells Based on Pristine [70]Fullerene as Electron-Selective Contact. ChemSusChem, 2016, 9, 1218-1218.	6.8	2
95	Electrodeposition of ZnO nanowire arrays with tailored dimensions: building blocks for photoelectrochemical devices. , 2007, , .		1
96	Structural and electrical characterisation of MgCl ₂ -treated CdTe solar cells. , 2015, , .		1
97	ZnO nanowire radial CdTe solar cells. , 2015, , .		1
98	The Scope of Zinc Oxide Bulk Growth. , 2005, , 3-14.		1