Elena Maria Tresso

List of Publications by Year
in descending order

105 papers	3,134 citations	159585 30 h-index	168389 53 g-index
105 all docs	105 docs citations	105 times ranked	4141 citing authors

#	Article	IF	Citations
1	Comparison of photocatalytic and transport properties of TiO₂ and ZnO nanostructures for solar-driven water splitting. Physical Chemistry Chemical Physics, 2015, 17, 7775-7786.	2.8	234
2	In situ MoS₂ Decoration of Laser-Induced Graphene as Flexible Supercapacitor Electrodes. ACS Applied Materials & Interfaces, 2016, 8, 10459-10465.	8.0	228
3	Influence of doping on the structural and optoelectronic properties of amorphous and microcrystalline silicon carbide. Journal of Applied Physics, 1992, 72, 1327-1333.	2.5	146
4	A flexible and portable powerpack by solid-state supercapacitor and dye-sensitized solar cell integration. Journal of Power Sources, 2017, 359, 311-321.	7.8	134
5	Mixed 1Tâ€“2H Phase MoS₂/Reduced Graphene Oxide as Active Electrode for Enhanced Supercapacitive Performance. ACS Applied Materials & Interfaces, 2016, 8, 32842-32852.	8.0	132
6	Innovative multipolymer electrolyte membrane designed by oxygen inhibited UV-crosslinking enables solid-state in plane integration of energy conversion and storage devices. Energy, 2019, 166, 789-795.	8.8	87
7	New insights on laser-induced graphene electrodes for flexible supercapacitors: tunable morphology and physical properties. Nanotechnology, 2017, 28, 174002.	2.6	80
8	A Chemometric Approach for the Sensitization Procedure of ZnO Flowerlike Microstructures for Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 11288-11295.	8.0	78
9	Characterization of photovoltaic modules for low-power indoor application. Applied Energy, 2013, 102, 1295-1302.	10.1	77
10	Interfacial Effects in Solidâ€“Liquid Electrolytes for Improved Stability and Performance of Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 37797-37803.	8.0	76
11	High efficiency dye-sensitized solar cells exploiting sponge-like ZnO nanostructures. Physical Chemistry Chemical Physics, 2012, 14, 16203.	2.8	75
12	TiO 2 nanotubes as flexible photoanode for back-illuminated dye-sensitized solar cells with hemi-squaraine organic dye and iodine-free transparent electrolyte. Organic Electronics, 2014, 15, 3715-3722.	2.6	74
13	First Pseudohalogen Polymer Electrolyte for Dye-Sensitized Solar Cells Promising for In Situ Photopolymerization. Journal of Physical Chemistry C, 2013, 117, 20421-20430.	3.1	71
14	Toward Totally Flexible Dye-Sensitized Solar Cells Based on Titanium Grids and Polymeric Electrolyte. IEEE Journal of Photovoltaics, 2016, 6, 498-505.	2.5	70
15	Self-assembly of graphene aerogel on copper wire for wearable fiber-shaped supercapacitors. Carbon, 2016, 105, 649-654.	10.3	67
16	Nafion and carbon nanotube nanocomposites for mixed proton and electron conduction. Journal of Membrane Science, 2010, 363, 265-270.	8.2	64
17	Fiber-shaped asymmetric supercapacitor exploiting rGO/Fe2O3 aerogel and electrodeposited MnOx nanosheets on carbon fibers. Carbon, 2019, 144, 91-100.	10.3	61
18	Microfluidic sealing and housing system for innovative dye-sensitized solar cell architecture. Microelectronic Engineering, 2011, 88, 2308-2310.	2.4	47

#	Article	IF	Citations
19	An easy approach for the fabrication of TiO2 nanotube-based transparent photoanodes for Dye-sensitized Solar Cells. Solar Energy, 2013, 95, 90-98.	6.1	45
20	Flexible solid-state CuxO-based pseudo-supercapacitor by thermal oxidation of copper foils. International Journal of Hydrogen Energy, 2016, 41, 11700-11708.	7.1	44
21	Degree of crystallinity and electrical transport properties of microcrystalline silicon-carbon alloys. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1993, 67, 331-346.	0.6	42
22	Observation of negative capacitance in a-SiC:H/a-Si:H UV photodetectors. Solid-State Electronics, 2006, 50, 367-371.	1.4	40
23	Compositional and structural properties of hydrogenated amorphous silicon-carbon films prepared by ultra-high-vacuum plasma-enhanced chemical vapour deposition with different carbon sources. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 72, 913-929.	0.6	39
24	Photoluminescence and electronic density of states in a-C:H films. Applied Physics Letters, 1998, 72, 2520-2522.	3.3	39
25	Optical properties of hydrogenated amorphous silicon. Journal of Applied Physics, 1986, 59, 611-618.	2.5	36
26	The influence of hydrogen dilution on the optoelectronic and structural properties of hydrogenated amorphous silicon carbide films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 69, 377-386.	0.6	35
27	New Transparent Laser-Drilled Fluorine-doped Tin Oxide covered Quartz Electrodes for Photo-Electrochemical Water Splitting. Electrochimica Acta, 2014, 131, 184-194.	5.2	35
28	Coral-shaped ZnO nanostructures for dye-sensitized solar cell photoanodes. Progress in Photovoltaics: Research and Applications, 2014, 22, 189-197.	8.1	34
29	Physical properties of chemically sprayed tin oxide and indium tin oxide transparent conductive films. Journal Physics D: Applied Physics, 1985, 18, 1825-1832.	2.8	32
30	Comparison between methane and acetylene as carbon sources for C-rich a-SiC: H films. Diamond and Related Materials, 1995, 4, 473-477.	3.9	31
31	An automatic evaluation system for technical education at the University level. IEEE Transactions on Education, 2002, 45, 268-275.	2.4	31
32	Combined experimental and theoretical investigation of the hemi-squaraine/TiO2 interface for dye sensitized solar cells. Physical Chemistry Chemical Physics, 2013, 15, 7198.	2.8	31
33	Determination of optical properties of SnO2 films. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1984, 4, 68-78.	0.4	30
34	Infrared vibrational spectra of hydrogenated amorphous and microcrystalline silicon-carbon alloys. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1993, 68, 329-340.	0.6	30
35	Optimization of a-Si1â^'xCx: H films prepared by ultrahigh vacuum plasma enhanced chemical vapour deposition for electroluminescent devices. Thin Solid Films, 1994, 241, 274-277.	1.8	30
36	Bonding structure and defects in wide band gap a-Si_{1â^'x}C_x:H films deposited in Hz diluted SiH₄+ CH₄gas mixtures. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1995, 71, 1015-1033.	0.6	30

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37	An easy method for the room-temperature growth of spongelike nanostructured Zn films as initial step for the fabrication of nanostructured ZnO. Thin Solid Films, 2012, 524, 107-112.	1.8	30
38	Comparison of Hemi-Squaraine Sensitized TiO₂ and ZnO Photoanodes for DSSC Applications. Journal of Physical Chemistry C, 2013, 117, 22778-22783.	3.1	30
39	Multifunctional NIR-reflective and self-cleaning UV-cured coating for solar cell applications based on cycloaliphatic epoxy resin. Progress in Organic Coatings, 2014, 77, 458-462.	3.9	30
40	Dynamical analysis of microbial fuel cells based on planar and 3D-packed anodes. Chemical Engineering Journal, 2016, 288, 38-49.	12.7	29
41	Microcrystallization formation in silicon carbide thin films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1992, 66, 135-146.	0.6	28
42	Physical properties of undoped and doped hydrogenated amorphous silicon carbide. Semiconductor Science and Technology, 1991, 6, 1141-1146.	2.0	24
43	Toward quasi-solid state Dye-sensitized Solar Cells: Effect of Î³-Al 2 O 3 nanoparticle dispersion into liquid electrolyte. Solar Energy, 2015, 111, 125-134.	6.1	24
44	Nafion membranes with vertically-aligned CNTs for mixed proton and electron conduction. Journal of Membrane Science, 2012, 415-416, 346-352.	8.2	23
45	High energy and high voltage integrated photo-electrochemical double layer capacitor. Sustainable Energy and Fuels, 2018, 2, 968-977.	4.9	23
46	Differences in physical properties of hydrogenated and fluorinated amorphous silicon carbide prepared by reactive sputtering. Journal of Applied Physics, 1992, 71, 5641-5645.	2.5	22
47	Hydrogen and nitrogen effects on optical and structural properties of amorphous carbon. Materials Science and Engineering C, 2008, 28, 795-798.	7.3	20
48	Microfluidic housing system: a useful tool for the analysis of dye-sensitized solar cell components. Applied Physics A: Materials Science and Processing, 2012, 109, 377-383.	2.3	19
49	Hydrogen diffusion and related defects in hydrogenated amorphous silicon carbide. Journal of Non-Crystalline Solids, 1991, 128, 133-138.	3.1	18
50	Influence of film thickness on optical and electrical properties of hydrogenated amorphous silicon. Thin Solid Films, 1987, 150, 1-9.	1.8	17
51	Evaluation of thermophotovoltaic conversion efficiency. Journal of Applied Physics, 1982, 53, 9098-9104.	2.5	16
52	A model for amorphous solar cell analysis. Solar Cells, 1985, 14, 149-156.	0.6	16
53	Structural and optical properties of Fe1â^'xMxSi2 thin films (M=Co, Mn; 0â‰¤xâ‰¤0.20). Microelectronic Engineering, 2001, 55, 233-241.	2.4	16
54	Spark plasma sintering of self-propagating high-temperature synthesized TiC0.7/TiB2 powders and detailed characterization of dense product. Ceramics International, 2009, 35, 2587-2599.	4.8	15

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55	Differential scanning calorimetry (DSC) studies of hydrogenated amorphous semiconductor alloys. Physica B: Condensed Matter, 1992, 176, 73-77.	2.7	14
56	Structural and optoelectronic properties of doped microcrystalline silicon carbide films. Semiconductor Science and Technology, 1994, 9, 1543-1548.	2.0	14
57	Electric Characterization and Modeling of Microfluidic-Based Dye-Sensitized Solar Cell. International Journal of Photoenergy, 2012, 2012, 1-11.	2.5	14
58	Amorphous hydrogenated silicon-carbon-tin alloy films. Physical Review B, 1988, 37, 1231-1236.	3.2	13
59	Density of gap states in a-SiC:H films by means of photoconductive and photothermal spectroscopies. Physica B: Condensed Matter, 1995, 205, 169-174.	2.7	13
60	Effect of defects on electrical properties of 4H-SiC Schottky diodes. Materials Science and Engineering C, 2008, 28, 799-804.	7.3	13
61	Optical analysis of amorphous solar cells. Solar Cells, 1984, 11, 375-388.	0.6	11
62	Magnetronâ€sputtered amorphous silicon. Journal of Applied Physics, 1985, 57, 5424-5427.	2.5	11
63	Influence of inhomogeneous contact in electrical properties of 4Hâ€“SiC based Schottky diode. Solid-State Electronics, 2008, 52, 1232-1236.	1.4	11
64	Structural, optical and electrical properties of helium diluted a-Si1â^'xCx:H films deposited by PECVD. Journal of Non-Crystalline Solids, 2006, 352, 1388-1391.	3.1	10
65	Physical properties and structure ofa-Si1â^'x C x : H alloy films. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1987, 9, 393-408.	0.4	9
66	Effects of temperature on structural properties of hydrogenated amorphous siliconâ€germanium and carbonâ€siliconâ€germanium alloys. Journal of Applied Physics, 1991, 69, 2029-2032.	2.5	9
67	Consistent static and small-signal physics-based modeling of dye-sensitized solar cells under different illumination conditions. Physical Chemistry Chemical Physics, 2013, 15, 14634.	2.8	9
68	Using a Stack Shunt to Mitigate Catalyst Support Carbon Corrosion in Polymer Electrolyte Membrane Fuel Cell Stacks During Start-Stop Cycling. Journal of Fuel Cell Science and Technology, 2014, 11, .	0.8	9
69	Novel spongelike nanostructured ZnO films: Properties and applications. Journal of Alloys and Compounds, 2014, 586, S331-S335.	5.5	9
70	Electrolytes based on Nâ€Butylâ€Nâ€Methylâ€Pyrrolidinium 4,5â€Dicyanoâ€2â€(Trifluoromethyl) Imidazole for High Voltage Electrochemical Double Layer Capacitors. ChemElectroChem, 2019, 6, 552-557.	3.4	9
71	Investigation on structure and optoelectronic properties of hydrogenated amorphous CSiGe:H alloys. Solid State Communications, 1989, 70, 381-384.	1.9	8
72	Effects of power density and molecule dwell time on compositional and optoelectronic properties of a-SiC : H alloys. Solid State Communications, 1996, 98, 617-622.	1.9	7

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73	Photogenerated current improvement by optimization of amorphous solar cell optical parameters. Journal of Applied Physics, 1984, 55, 3140-3143.	2.5	6
74	Influence of substrate temperature and annealing treatments on the properties of glow-discharge and sputtered a-SixC1â˜'x:H films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1991, 63, 1223-1233.	0.6	6
75	Physical description of the impregnation mechanism of dye molecules in contact with porous electrodes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 915-919.	2.1	6
76	Correlation between physical properties and hydrogen concentration in magnetron-sputtered amorphous silicon. Physical Review B, 1986, 33, 7022-7028.	3.2	5
77	Tetrahedrally bonded ternary amorphous semiconductor alloys. Physical Review B, 1989, 40, 1647-1651.	3.2	5
78	Electron spin resonance and photoacoustic spectroscopy of a-CSi:H and a-SiGe:H alloys. Thin Solid Films, 1990, 190, 351-358.	1.8	5
79	Hydrogen evolution in amorphous silicon carbide. Physica B: Condensed Matter, 1991, 170, 149-152.	2.7	5
80	Boron and phosphorus doping of a-SiC:H thin films by means of ion implantation. Thin Solid Films, 1995, 265, 113-118.	1.8	5
81	New insights on amorphous silicon-nitride microcavities. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 591-595.	2.7	5
82	Real time monitoring of ultrafast sensitization for Dye-Sensitized Solar Cell photoanodes. Solar Energy, 2016, 130, 74-80.	6.1	5
83	Enhanced Capacitive Deionization Exploiting Novel Functionalized Graphene Oxide Electrodes. Advanced Materials Technologies, 2022, 7, .	5.8	5
84	Recent progress in studies ofaâ€CSiSn:H alloys. Journal of Applied Physics, 1988, 64, 721-726.	2.5	4
85	Characterization of Si-CeO/sub 2/-YBCO tri-layers grown by magnetron sputtering. IEEE Transactions on Applied Superconductivity, 2003, 13, 2860-2863.	1.7	4
86	R.F. SPUTTERING DEPOSITION OF BUFFER LAYERS FOR Si/YBCO INTEGRATED MICROELECTRONICS. International Journal of Modern Physics B, 2005, 19, 4605-4617.	2.0	4
87	Static and dynamic electrical study of a-SiC:H based pâ€“iâ€“n structure, effect of hydrogen dilution of the intrinsic layer. Solid-State Electronics, 2007, 51, 159-163.	1.4	4
88	Modelling and analysis of a-SiC:H pâ€“iâ€“n photodetectors: Effect of hydrogen dilution on dynamic model. Solid-State Electronics, 2007, 51, 1067-1072.	1.4	4
89	<I>In-Situ</I> Spectroscopic Analyses of the Dye Uptake on ZnO and TiO₂ Photoanodes for Dye-Sensitized Solar Cells. Journal of Nanoscience and Nanotechnology, 2015, 15, 5993-6000.	0.9	4
90	Structure and optical properties of hydrogenated amorphous carbon-tin alloys prepared using the sputter-assisted plasma chemical deposition technique. Thin Solid Films, 1987, 150, 189-199.	1.8	3

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91	Semiconductor properties of amorphous C-Sn thin films. Thin Solid Films, 1987, 146, L19-L22.	1.8	3
92	Structural and optoelectronic properties of carbon-rich hydrogenated amorphous silicon-carbon films. Diamond and Related Materials, 1995, 4, 357-360.	3.9	3
93	Verifying the learning process in physics. European Journal of Physics, 2001, 22, 257-265.	0.6	3
94	Characterization of siliconâ€“YBCO buffered multilayers grown by sputtering. Applied Surface Science, 2004, 238, 485-489.	6.1	3
95	Investigation on physical properties and structure of amorphous hydrogenated carbon films. Journal of Non-Crystalline Solids, 1988, 101, 179-186.	3.1	2
96	Urbach tail and gap state distribution in as-deposited and annealed a-(C-Si-Ge): H alloys. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1989, 60, 713-720.	0.6	2
97	Study of the optical properties and the density-of-states distribution of hydrogenated amorphous silicon-nitrogen alloy. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 1951-1962.	0.6	2
98	Transport Characterization of Silicon-YBCO Buffered Multilayers Deposited by Magnetron Sputtering. IEEE Transactions on Applied Superconductivity, 2005, 15, 3062-3065.	1.7	1
99	Morphological and structural modifications induced inÂa-Si1âˆ’x C x :H films by excimer laser annealing. Applied Physics A: Materials Science and Processing, 2010, 100, 1163-1168.	2.3	1
100	Small-signal ac response of an electrolytic cell with recombining space charge. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 4225-4225.	2.1	1
101	An optimization model for amorphous solar cells in which optical, electrical and recombination properties are specified. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1986, 8, 447-463.	0.4	0
102	Nanostructured photoelectrodes and polymeric nanointerfaces engineering: The critical transition from rigid to flexible dye-sensitized solar cells. , 2015, , .		0
103	Analysis and Modelling of Negative Capacitance in p-Type a-SiC:H/Intrinsic a-Si:H/n-Type a-Si:H Heterostructures. Sensor Letters, 2011, 9, 2182-2185.	0.4	0
104	Anodically Grown TiO2 Nanotube Membranes: Synthesis, Characterization, and Application in Dye-Sensitized Solar Cells. , 2015, , 1-23.		0
105	Anodically Grown TiO2 Nanotube Membranes: Synthesis, Characterization, and Application in Dye-Sensitized Solar Cells. , 2016, , 1299-1325.		0