Pantaleo Davide Cozzoli

List of Publications by Year
in descending order

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119	10,423	43973 48	31759 101
papers	citations	h-index	g-index

125	125	125	13842
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Low-Temperature Synthesis of Soluble and Processable Organic-Capped Anatase TiO2Nanorods. Journal of the American Chemical Society, 2003, 125, 14539-14548.	6.6	924
2	Synthesis, properties and perspectives of hybrid nanocrystal structures. Chemical Society Reviews, 2006, 35, 1195.	18.7	855
3	Microwaveâ€Assisted Synthesis of Colloidal Inorganic Nanocrystals. Angewandte Chemie - International Edition, 2011, 50, 11312-11359.	7.2	686
4	Colloidal heterostructured nanocrystals: Synthesis and growth mechanisms. Nano Today, 2010, 5, 449-493.	6.2	628
5	Magnetically Driven Floating Foams for the Removal of Oil Contaminants from Water. ACS Nano, 2012, 6, 5413-5419.	7.3	574
6	Metallic-like Stoichiometric Copper Sulfide Nanocrystals: Phase- and Shape-Selective Synthesis, Near-Infrared Surface Plasmon Resonance Properties, and Their Modeling. ACS Nano, 2013, 7, 7352-7369.	7.3	306
7	Photocatalytic Synthesis of Silver Nanoparticles Stabilized by TiO2Nanorods:Â A Semiconductor/Metal Nanocomposite in Homogeneous Nonpolar Solution. Journal of the American Chemical Society, 2004, 126, 3868-3879.	6.6	304
8	UV-induced photocatalytic degradation of azo dyes by organic-capped ZnO nanocrystals immobilized onto substrates. Applied Catalysis B: Environmental, 2005, 60, 1-11.	10.8	262
9	Nonhydrolytic Synthesis of High-Quality Anisotropically Shaped Brookite TiO₂ Nanocrystals. Journal of the American Chemical Society, 2008, 130, 11223-11233.	6.6	247
10	Shape and Phase Control of Colloidal ZnSe Nanocrystals. Chemistry of Materials, 2005, 17, 1296-1306.	3.2	220
11	Colloidal oxide nanoparticles for the photocatalytic degradation of organic dye. Materials Science and Engineering C, 2003, 23, 285-289.	3.8	218
12	ZnO Nanocrystals by a Non-hydrolytic Route:Â Synthesis and Characterization. Journal of Physical Chemistry B, 2003, 107, 4756-4762.	1.2	212
13	Heterodimers Based on CoPt3â^'Au Nanocrystals with Tunable Domain Size. Journal of the American Chemical Society, 2006, 128, 6690-6698.	6.6	202
14	Photocatalytic degradation of azo dyes by organic-capped anatase TiO nanocrystals immobilized onto substrates. Applied Catalysis B: Environmental, 2005, 55, 81-91.	10.8	190
15	Role of Metal Nanoparticles in TiO2/Ag Nanocomposite-Based Microheterogeneous Photocatalysis. Journal of Physical Chemistry B, 2004, 108, 9623-9630.	1.2	188
16	One-Pot Synthesis and Characterization of Size-Controlled Bimagnetic FePtâ^'Iron Oxide Heterodimer Nanocrystals. Journal of the American Chemical Society, 2008, 130, 1477-1487.	6.6	179
17	Colloidal Strategies for Preparing Oxideâ€Based Hybrid Nanocrystals. European Journal of Inorganic Chemistry, 2008, 2008, 837-854.	1.0	175
18	Seeded Growth of Asymmetric Binary Nanocrystals Made of a Semiconductor TiO2Rodlike Section and a Magnetic Î³-Fe2O3Spherical Domain. Journal of the American Chemical Society, 2006, 128, 16953-16970.	6.6	163

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19	Topologically Controlled Growth of Magnetic-Metal-Functionalized Semiconductor Oxide Nanorods. Nano Letters, 2007, 7, 1386-1395.	4.5	155
20	Colloidal Synthesis and Characterization of Tetrapod-Shaped Magnetic Nanocrystals. Nano Letters, 2006, 6, 1966-1972.	4.5	140
21	Architectural Control of Seeded-Grown Magneticâ^'Semicondutor Iron Oxideâ^'TiO₂ Nanorod Heterostructures: The Role of Seeds in Topology Selection. Journal of the American Chemical Society, 2010, 132, 2437-2464.	6.6	139
22	Correlating Magneto-Structural Properties to Hyperthermia Performance of Highly Monodisperse Iron Oxide Nanoparticles Prepared by a Seeded-Growth Route. Chemistry of Materials, 2011, 23, 4170-4180.	3.2	134
23	Nano-Objects on a Round Trip from Water to Organics in a Polymeric Ionic Liquid Vehicle. Small, 2006, 2, 507-512.	5.2	131
24	Fluorescent Asymmetrically Cobalt-Tipped CdSe@CdS Core@Shell Nanorod Heterostructures Exhibiting Room-Temperature Ferromagnetic Behavior. Journal of the American Chemical Society, 2009, 131, 12817-12828.	6.6	119
25	Reversibly Lightâ€Switchable Wettability of Hybrid Organic/Inorganic Surfaces With Dual Microâ€/Nanoscale Roughness. Advanced Functional Materials, 2009, 19, 1149-1157.	7.8	115
26	Colloidal Arenethiolate-Capped PbS Quantum Dots: Optoelectronic Properties, Self-Assembly, and Application in Solution-Cast Photovoltaics. Journal of Physical Chemistry C, 2013, 117, 13305-13317.	1.5	112
27	Hyperbranched Anatase TiO₂Nanocrystals: Nonaqueous Synthesis, Growth Mechanism, and Exploitation in Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2011, 133, 19216-19239.	6.6	110
28	Selective reactions on the tips of colloidal semiconductor nanorods. Journal of Materials Chemistry, 2006, 16, 3952.	6.7	108
29	Reversible Wettability Changes in Colloidal TiO₂ Nanorod Thin-Film Coatings under Selective UV Laser Irradiation. Journal of Physical Chemistry C, 2008, 112, 701-714.	1.5	96
30	Colloidal TiO2Nanocrystals/MEH-PPV Nanocomposites:Â Photo(electro)chemical Study. Journal of Physical Chemistry B, 2005, 109, 1554-1562.	1.2	91
31	Ultrathin TiO₂(B) Nanorods with Superior Lithium-Ion Storage Performance. ACS Applied Materials & Interfaces, 2014, 6, 1933-1943.	4.0	89
32	Dynamical Formation of Spatially Localized Arrays of Aligned Nanowires in Plastic Films with Magnetic Anisotropy. ACS Nano, 2010, 4, 1873-1878.	7.3	87
33	Efficient charge storage in photoexcited TiO2 nanorod-noble metal nanoparticle composite systems. Chemical Communications, 2005, , 3186.	2.2	85
34	Photochemical Synthesis of Water-Soluble Gold Nanorods: The Role of Silver in Assisting Anisotropic Growth. Chemistry of Materials, 2009, 21, 4192-4202.	3.2	85
35	Colloidal Synthesis of Organic-Capped ZnO Nanocrystals via a Sequential Reductionâ^'Oxidation Reaction. Journal of Physical Chemistry B, 2005, 109, 2638-2644.	1.2	68
36	Magneticâ€“Fluorescent Colloidal Nanobeads: Preparation and Exploitation in Cell Separation Experiments. Macromolecular Bioscience, 2009, 9, 952-958.	2.1	66

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37	TiO2 nanocrystals â€“ MEH-PPV composite thin films as photoactive material. Thin Solid Films, 2004, 451-452, 64-68.	0.8	64
38	Spin-Polarization Transfer in Colloidal Magnetic-Plasmonic Au/Iron Oxide Hetero-nanocrystals. ACS Nano, 2013, 7, 857-866.	7.3	64
39	From capacitance-controlled to diffusion-controlled electrochromism in one-dimensional shape-tailored tungsten oxide nanocrystals. Nano Energy, 2017, 41, 634-645.	8.2	63
40	Exchange-Coupled Bimagnetic Cobalt/Iron Oxide Branched Nanocrystal Heterostructures. Nano Letters, 2009, 9, 366-376.	4.5	62
41	Photocatalytic activity of organic-capped anatase TiO2 nanocrystals in homogeneous organic solutions. Materials Science and Engineering C, 2003, 23, 707-713.	3.8	60
42	Size, Shape, and Internal Atomic Ordering of Nanocrystals by Atomic Pair Distribution Functions: A Comparative Study of Î³-Fe₂O₃ Nanosized Spheres and Tetrapods. Journal of the American Chemical Society, 2009, 131, 14264-14266.	6.6	59
43	Electron diffractive imaging of oxygen atoms in nanocrystals at sub-Ã¥ngstrÃ¶m resolution. Nature Nanotechnology, 2010, 5, 360-365.	15.6	56
44	Tips on growing nanocrystals. Nature Materials, 2005, 4, 801-802.	13.3	55
45	Synthesis of TiO2â€“Au Composites by Titania-Nanorod-Assisted Generation of Gold Nanoparticles at Aqueous/Nonpolar Interfaces. Small, 2006, 2, 413-421.	5.2	54
46	Spatially Controlled Surface Energy Traps on Superhydrophobic Surfaces. ACS Applied Materials & Interfaces, 2014, 6, 1036-1043.	4.0	52
47	Nonâ€Blinking Singleâ€Photon Generation with Anisotropic Colloidal Nanocrystals: Towards Roomâ€Temperature, Efficient, Colloidal Quantum Sources. Advanced Materials, 2013, 25, 1974-1980.	11.1	51
48	Colloidal semiconductor/magnetic heterostructures based on iron-oxide-functionalized brookite TiO2 nanorods. Physical Chemistry Chemical Physics, 2009, 11, 3680.	1.3	48
49	Wettability conversion of colloidal TiO2 nanocrystal thin films with UV-switchable hydrophilicity. Physical Chemistry Chemical Physics, 2009, 11, 3692.	1.3	47
50	Picosecond Photoluminescence Decay Time in Colloidal Nanocrystals:â€‰ The Role of Intrinsic and Surface States. Journal of Physical Chemistry C, 2007, 111, 10541-10545.	1.5	46
51	Investigation on alcohol vapours/TiO2 nanocrystal thin films interaction by SPR technique for sensing application. Sensors and Actuators B: Chemical, 2004, 100, 75-80.	4.0	45
52	Magnetic properties of novel superparamagnetic MRI contrast agents based on colloidal nanocrystals. Journal of Magnetism and Magnetic Materials, 2008, 320, e320-e323.	1.0	45
53	Photocatalytic degradation of methyl-red by immobilised nanoparticles of TiO2 and ZnO. Water Science and Technology, 2004, 49, 183-188.	1.2	43
54	Light-Controlled Directional Liquid Drop Movement on TiO₂ Nanorods-Based Nanocomposite Photopatterns. Langmuir, 2010, 26, 18557-18563.	1.6	35

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55	Shape-tailored TiO2 nanocrystals with synergic peculiarities as building blocks for highly efficient multi-stack dye solar cells. Energy and Environmental Science, 2013, 6, 1791.	15.6	35
56	Colloidal Magnetic Heterostructured Nanocrystals with Asymmetric Topologies: Seeded-Growth Synthetic Routes and Formation Mechanisms. Frontiers in Materials, 2016, 3, .	1.2	35
57	Tunneling Magnetoresistance with Sign Inversion in Junctions Based on Iron Oxide Nanocrystal Superlattices. ACS Nano, 2011, 5, 1731-1738.	7.3	34
58	Enhancement of the optically activated NO2 gas sensing response of brookite TiO2 nanorods/nanoparticles thin films deposited by matrix-assisted pulsed-laser evaporation. Sensors and Actuators B: Chemical, 2012, 161, 869-879.	4.0	34
59	High-quality photoelectrodes based on shape-tailored TiO2 nanocrystals for dye-sensitized solar cells. Journal of Materials Chemistry, 2011, 21, 13371.	6.7	33
60	TiO2 nanocrystal films for sensing applications based on surface plasmon resonance. Synthetic Metals, 2005, 148, 25-29.	2.1	32
61	Low-dimensional chainlike assemblies of TiO2 nanorod-stabilized Au nanoparticles. Chemical Communications, 2005, , 942.	2.2	31
62	Thermal and mechanical characterization of poly(methyl methacrylate) nanocomposites filled with TiO2 nanorods. Composites Part B: Engineering, 2012, 43, 3114-3119.	5.9	30
63	Thin films of TiO2 nanocrystals with controlled shape and surface coating for surface plasmon resonance alcohol vapour sensing. Sensors and Actuators B: Chemical, 2007, 126, 562-572.	4.0	29
64	Control of the water adhesion on hydrophobic micropillars by spray coating technique. Colloid and Polymer Science, 2013, 291, 401-407.	1.0	29
65	Fabrication of flexible all-inorganic nanocrystal solar cells by room-temperature processing. Energy and Environmental Science, 2013, 6, 1565.	15.6	29
66	Colloidal Anisotropic ZnOâ€“Fe@FexOy Nanoarchitectures with Interface-Mediated Exchange-Bias and Band-Edge Ultraviolet Fluorescence. Chemistry of Materials, 2012, 24, 2722-2732.	3.2	27
67	Electrochemical Assessment of the Band-Edge Positioning in Shape-Tailored TiO₂-Nanorod-Based Photoelectrodes for Dye Solar Cells. Journal of Physical Chemistry C, 2013, 117, 2574-2583.	1.5	27
68	UV-Light-Driven Immobilization of Surface-Functionalized Oxide Nanocrystals onto Silicon. Advanced Functional Materials, 2007, 17, 201-211.	7.8	26
69	Improvement of thermal stability of poly(methyl methacrylate) by incorporation of colloidal TiO2 nanorods. Polymer Degradation and Stability, 2011, 96, 1377-1381.	2.7	26
70	Near-infrared selective dynamic windows controlled by charge transfer impedance at the counter electrode. Nanoscale, 2016, 8, 20056-20065.	2.8	26
71	TiO2 brookite nanostructured thin layer on magneto-optical surface plasmon resonance transductor for gas sensing applications. Journal of Applied Physics, 2012, 112, .	1.1	24
72	Films of brookite TiO2 nanorods/nanoparticles deposited by matrix-assisted pulsed laser evaporation as NO2 gas-sensing layers. Applied Physics A: Materials Science and Processing, 2011, 104, 963-968.	1.1	23

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73	Formation and magnetic manipulation of periodically aligned microchains in thin plastic membranes. Journal of Applied Physics, 2012, 112, 083927.	1.1	22
74	MAPLE deposition of nanomaterials. Applied Surface Science, 2014, 302, 92-98.	3.1	22
75	An Insight into Chemistry and Structure of Colloidal 2D-WS2 Nanoflakes: Combined XPS and XRD Study. Nanomaterials, 2021, 11, 1969.	1.9	22
76	Organic photovoltaic devices with colloidal TiO2 nanorods as key functional components. Physical Chemistry Chemical Physics, 2012, 14, 3987.	1.3	21
77	Photoelectrochemical study on photosynthetic pigments-sensitized nanocrystalline ZnO films. Bioelectrochemistry, 2004, 63, 99-102.	2.4	20
78	The Role of Intrinsic and Surface States on the Emission Properties of Colloidal CdSe and CdSe/ZnS Quantum Dots. Nanoscale Research Letters, 2007, 2, 512-514.	3.1	20
79	Photoelectrochemical properties of Zn(II) phthalocyanine/ZnO nanocrystals heterojunctions: nanocrystal surface chemistry effect. Applied Surface Science, 2005, 246, 367-371.	3.1	19
80	Exploiting GISAXS for the Study of a 3D Ordered Superlattice of Self-Assembled Colloidal Iron Oxide Nanocrystals. Crystal Growth and Design, 2012, 12, 5505-5512.	1.4	19
81	Thermal and Mechanical Characterization of PMMA TiO₂ Nanocomposites. Advanced Materials Research, 0, 67, 209-214.	0.3	18
82	Surfactant-induced thermomechanical and morphological changes in TiO2-polystyrene nanocomposites. Journal of Colloid and Interface Science, 2013, 405, 103-108.	5.0	18
83	Controlled Swapping of Nanocomposite Surface Wettability by Multilayer Photopolymerization. Langmuir, 2011, 27, 8522-8529.	1.6	17
84	Directional enhancement of refractive index and tunable wettability of polymeric coatings due to preferential dispersion of colloidal TiO2 nanorods towards their surface. Thin Solid Films, 2010, 518, 4425-4431.	0.8	16
85	In-plane Aligned Colloidal 2D WS2 Nanoflakes for Solution-Processable Thin Films with High Planar Conductivity. Scientific Reports, 2019, 9, 9002.	1.6	16
86	Optically controlled liquid flow in initially prohibited elastomeric nanocomposite micro-paths. RSC Advances, 2012, 2, 9543.	1.7	15
87	Photochemical sensitisation process at photosynthetic pigments/Q-sized colloidal semiconductor hetero-junctions. Synthetic Metals, 2003, 139, 593-596.	2.1	14
88	Advances in the Chemical Fabrication of Complex Multimaterial Nanocrystals. Recent Patents on Nanotechnology, 2007, 1, 224-232.	0.7	14
89	Synthesis routes for the growth of complex nanostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 128-133.	1.3	14
90	Determination of surface properties of various substrates using TiO2 nanorod coatings with tunable characteristics. Journal of Materials Science, 2008, 43, 3474-3480.	1.7	14

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91	Room-temperature processed films of colloidal carved rod-shaped nanocrystals of reduced tungsten oxide as interlayers for perovskite solar cells. Physical Chemistry Chemical Physics, 2018, 20, 11396-11404.	1.3	12
92	Static and Dynamical Structural Investigations of Metalâ€Oxide Nanocrystals by Powder Xâ€ray Diffraction: Colloidal Tungsten Oxide as a Case Study. ChemPhysChem, 2016, 17, 699-709.	1.0	11
93	Surface chemistry of arenethiolate-capped PbS quantum dots and application as colloidally stable photovoltaic ink. Thin Solid Films, 2014, 560, 2-9.	0.8	9
94	Synthesis of Reduced Graphite Oxide by a Novel Green Process Based on UV Light Irradiation. Science of Advanced Materials, 2015, 7, 2445-2451.	0.1	9
95	TiO 2 nanorod-based photoelectrodes for dye solar cells with tunable morphological features. Thin Solid Films, 2014, 568, 122-130.	0.8	8
96	Colloidal Au/iron oxide nanocrystal heterostructures: magnetic, plasmonic and magnetic hyperthermia properties. Journal of Materials Chemistry C, 2018, 6, 12329-12340.	2.7	8
97	Photoelectrochemical properties of hybrid junctions based on zinc phthalocyanine and semiconducting colloidal nanocrystals. Electrochimica Acta, 2006, 51, 5120-5124.	2.6	7
98	Synthetic Strategies to Size and Shape Controlled Nanocrystals and Nanocrystal Heterostructures. Advances in Experimental Medicine and Biology, 2007, 620, 1-17.	0.8	7
99	Three-Dimensional Self-Assembly of Networked Branched TiO2 Nanocrystal Scaffolds for Efficient Room-Temperature Processed Depleted Bulk Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 5026-5033.	4.0	7
100	Synthetic Approaches to Colloidal Nanocrystal Heterostructures Based on Metal and Metal-Oxide Materials. Nanomaterials, 2022, 12, 1729.	1.9	6
101	Mechanistic insight into the formation of colloidal WS₂ nanoflakes in hot alkylamine media. Nanoscale Advances, 2019, 1, 2772-2782.	2.2	5
102	Study of titania nanorod films deposited by matrix-assisted pulsed laser evaporation as a function of laser fluence. Applied Physics A: Materials Science and Processing, 2011, 105, 605-610.	1.1	4
103	An ensemble-based method to assess the quality of a sample of nanocrystals as single photon emitters. Optics Communications, 2013, 300, 215-219.	1.0	4
104	Room-temperature treatments for all-inorganic nanocrystal solar cell devices. Thin Solid Films, 2014, 560, 44-48.	0.8	4
105	Self-assembled supracrystals and hetero-structures made from colloidal nanocrystals. CrystEngComm, 2014, 16, 9365-9367.	1.3	4
106	Laser-induced disaggregation of TiO₂nanofillers for uniform nanocomposites. Nanotechnology, 2014, 25, 125702.	1.3	3
107	Tailoring the Nanostructure of TiO₂ Photoanodes for Efficient Co(II)/Co(III)â€Mediated Dyeâ€Sensitized Solar Cells. Advanced Sustainable Systems, 2017, 1, 1700098.	2.7	3
108	Photoluminescence emission induced by localized states in halide-passivated colloidal two-dimensional WS₂ nanoflakes. Journal of Materials Chemistry C, 2021, 9, 2398-2407.	2.7	3

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109	The influence of intrinsic and surface states on the emission properties of colloidal nanocrystals. Superlattices and Microstructures, 2008, 43, 528-531.	1.4	2
110	Reversible wettability of hybrid organic/inorganic surfaces of systems upon light irradiation/storage cycles. International Journal of Nanomanufacturing, 2010, 6, 312.	0.3	2
111	Influence of the Precipitation Temperature on Properties of Nanohydroxyapatite Powder for the Fabrication of Highly Porous Bone Scaffolds. Key Engineering Materials, 2013, 587, 27-32.	0.4	2
112	Colloidal oxide-based heterostructured nanocrystals. , 2020, , 401-470.		1
113	Assembly of Iron Oxide Nanocrystal Superstructures. Science of Advanced Materials, 2013, 5, 2015-2020.	0.1	1
114	Comparative Raman Study of Organic-Free and Surfactant-Capped Rod-Shaped Anatase TiO₂ Nanocrystals. Science of Advanced Materials, 2014, 6, 923-932.	0.1	1
115	ZnO Nanocrystals by a Non-Hydrolytic Route: Synthesis and Characterization.. ChemInform, 2003, 34, no.	0.1	0
116	<title>Collodial TiO<formula><inf><roman>2</roman></inf></formula> rod and dot based thin films for chemical sensors based on surface plasmon resonance</title>. , 2005, 5836, 27.		0
117	Magnetic Multicomponent Heterostructured Nanocrystals. , 2017, , 217-290.		0
118	Magnetically Active Asymmetric Nanoheterostructures Based on Colloidal All-Inorganic Multicomponent Nanocrystals. , 2017, , 69-121.		0
119	Matrix-Assisted Pulsed Laser Evaporation Deposition of Pd Nanoparticles: The Role of Solvent. Science of Advanced Materials, 2015, 7, 2388-2400.	0.1	0