Angshuman Nag

List of Publications by Year
in descending order

112 papers	12,482 citations	26630 56 h-index	24258 110 g-index
113 all docs	113 docs citations	113 times ranked	11941 citing authors

#	Article	IF	Citations
1	Colloidal CsPbBr₃ Perovskite Nanocrystals: Luminescence beyond Traditional Quantum Dots. Angewandte Chemie - International Edition, 2015, 54, 15424-15428.	13.8	841
2	State of the Art and Prospects for Halide Perovskite Nanocrystals. ACS Nano, 2021, 15, 10775-10981.	14.6	705
3	Graphene Analogues of BN: Novel Synthesis and Properties. ACS Nano, 2010, 4, 1539-1544.	14.6	684
4	Metal-free Inorganic Ligands for Colloidal Nanocrystals: S^{2â€“}, HS^{â€“}, Se^{2â€“}, HSe^{â€“}, Te^{2â€“}, HTe^{â€“}, TeS₃^{2â€“}, OH^{â€“}, and NH₂^{â€“} as Surface Ligands. Journal of the American Chemical Society, 2011, 133, 10612-10620.	13.7	645
5	Terahertz Conductivity within Colloidal CsPbBr₃ Perovskite Nanocrystals: Remarkably High Carrier Mobilities and Large Diffusion Lengths. Nano Letters, 2016, 16, 4838-4848.	9.1	489
6	Band Edge Energies and Excitonic Transition Probabilities of Colloidal CsPbX₃ (X = Cl, Br,) Tj ETQq0 0 0 rgBT /Overlock 10 T	17.4	452
7	Can B-Site Doping or Alloying Improve Thermal- and Phase-Stability of All-Inorganic CsPbX₃ (X = Cl, Br, I) Perovskites?. ACS Energy Letters, 2018, 3, 286-289.	17.4	403
8	Colloidal Mn-Doped Cesium Lead Halide Perovskite Nanoplatelets. ACS Energy Letters, 2017, 2, 537-543.	17.4	341
9	Origin of the Substitution Mechanism for the Binding of Organic Ligands on the Surface of CsPbBr₃ Perovskite Nanocubes. Journal of Physical Chemistry Letters, 2017, 8, 4988-4994.	4.6	292
10	Beyond Colloidal Cesium Lead Halide Perovskite Nanocrystals: Analogous Metal Halides and Doping. ACS Energy Letters, 2017, 2, 1089-1098.	17.4	278
11	To Dope Mn²⁺ in a Semiconducting Nanocrystal. Journal of the American Chemical Society, 2008, 130, 10605-10611.	13.7	237
12	Bi³⁺â€Er³⁺ and Bi³⁺â€Yb³⁺ Codoped Cs₂AgInCl₆ Double Perovskite Nearâ€Infrared Emitters. Angewandte Chemie - International Edition, 2020, 59, 11307-11311.	13.8	223
13	Luminescence, Plasmonic, and Magnetic Properties of Doped Semiconductor Nanocrystals. Angewandte Chemie - International Edition, 2017, 56, 7038-7054.	13.8	211
14	BCN: A Graphene Analogue with Remarkable Adsorptive Properties. Chemistry - A European Journal, 2010, 16, 149-157.	3.3	194
15	Postsynthesis Doping of Mn and Yb into CsPbX₃ (X = Cl, Br, or I) Perovskite Nanocrystals for Downconversion Emission. Chemistry of Materials, 2018, 30, 8170-8178.	6.7	191
16	Colloidal Synthesis and Photophysics of M₃Sb₂I₉ (M=Cs and Rb) Nanocrystals: Leadâ€Free Perovskites. Angewandte Chemie - International Edition, 2017, 56, 14187-14191.	13.8	185
17	CsPbBr₃/ZnS Core/Shell Type Nanocrystals for Enhancing Luminescence Lifetime and Water Stability. ACS Energy Letters, 2020, 5, 1794-1796.	17.4	184
18	Synthesis and luminescence of Mn-doped Cs₂AgInCl₆ double perovskites. Chemical Communications, 2018, 54, 5205-5208.	4.1	181

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19	Lanthanide doping in metal halide perovskite nanocrystals: spectral shifting, quantum cutting and optoelectronic applications. NPG Asia Materials, 2020, 12, .	7.9	179
20	ns² Electron (Bi³⁺ and Sb³⁺) Doping in Lead-Free Metal Halide Perovskite Derivatives. Chemistry of Materials, 2020, 32, 10255-10267.	6.7	178
21	Inorganic Analogues of Graphene. European Journal of Inorganic Chemistry, 2010, 2010, 4244-4250.	2.0	175
22	Leadâ€Free Double Perovskite Cs₂AgInCl₆. Angewandte Chemie - International Edition, 2021, 60, 11592-11603.	13.8	168
23	Mn²⁺â€Doped Metal Halide Perovskites: Structure, Photoluminescence, and Application. Laser and Photonics Reviews, 2021, 15, .	8.7	167
24	Effect of Metal Ions on Photoluminescence, Charge Transport, Magnetic and Catalytic Properties of All-Inorganic Colloidal Nanocrystals and Nanocrystal Solids. Journal of the American Chemical Society, 2012, 134, 13604-13615.	13.7	156
25	Ultrafast Exciton Dynamics in Colloidal CsPbBr₃ Perovskite Nanocrystals: Biexciton Effect and Auger Recombination. Journal of Physical Chemistry C, 2017, 121, 4734-4739.	3.1	152
26	White Light from Mn²⁺-Doped CdS Nanocrystals:â€‰ A New Approach. Journal of Physical Chemistry C, 2007, 111, 13641-13644.	3.1	146
27	Colloidal Synthesis and Photophysics of M₃Sb₂I₉ (M=Cs and Rb) Nanocrystals: Leadâ€Free Perovskites. Angewandte Chemie, 2017, 129, 14375-14379.	2.0	146
28	A Study of Mn2+Doping in CdS Nanocrystals. Chemistry of Materials, 2007, 19, 3252-3259.	6.7	138
29	Low Voltage, Hysteresis Free, and High Mobility Transistors from All-Inorganic Colloidal Nanocrystals. Nano Letters, 2012, 12, 1813-1820.	9.1	137
30	Synthesis and Near-Infrared Emission of Yb-Doped Cs₂AgInCl₆ Double Perovskite Microcrystals and Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 15787-15793.	3.1	136
31	Postsynthesis Mn-doping in CsPbI₃ nanocrystals to stabilize the black perovskite phase. Nanoscale, 2019, 11, 4278-4286.	5.6	127
32	Origin of the Enhanced Photoluminescence from Semiconductor CdSeS Nanocrystals. Journal of Physical Chemistry Letters, 2010, 1, 2149-2153.	4.6	126
33	<i>To Exchange or Not to Exchange</i>. Suppressing Anion Exchange in Cesium Lead Halide Perovskites with PbSO₄â€“Oleate Capping. ACS Energy Letters, 2018, 3, 1049-1055.	17.4	119
34	Blue light emitting graphene-based materials and their use in generating white light. Solid State Communications, 2010, 150, 1774-1777.	1.9	114
35	Excellent green but less impressive blue luminescence from CsPbBr₃perovskite nanocubes and nanoplatelets. Nanotechnology, 2016, 27, 325708.	2.6	110
36	Synthesis and Optical Properties of Colloidal M₃Bi₂I₉ (M = Cs, Rb) Perovskite Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 10643-10649.	3.1	95

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37	Possible Dual Bandgap in (C₄H₉NH₃)₂PbI₄ 2D Layered Perovskite: Single-Crystal and Exfoliated Few-Layer. ACS Energy Letters, 2018, 3, 2940-2946.	17.4	94
38	X-ray Photoelectron Spectroscopy: A Unique Tool To Determine the Internal Heterostructure of Nanoparticles. Chemistry of Materials, 2013, 25, 1222-1232.	6.7	92
39	Ultrafast exciton many-body interactions and hot-phonon bottleneck in colloidal cesium lead halide perovskite nanocrystals. Physical Review B, 2018, 98, .	3.2	89
40	Are Chalcogenide Perovskites an Emerging Class of Semiconductors for Optoelectronic Properties and Solar Cell?. Chemistry of Materials, 2019, 31, 565-575.	6.7	88
41	Phase Stabilized Î±â€CsPbI₃ Perovskite Nanocrystals for Photodiode Applications. Laser and Photonics Reviews, 2018, 12, 1700209.	8.7	86
42	Ultranarrow and Widely TunableMn2+-Induced Photoluminescence from Single Mn-Doped Nanocrystals of ZnS-CdS Alloys. Physical Review Letters, 2013, 110, 267401.	7.8	84
43	Size-Dependent Tuning of Mn²⁺ d Emission in Mn²⁺-Doped CdS Nanocrystals: Bulk vs Surface. Journal of Physical Chemistry C, 2010, 114, 18323-18329.	3.1	80
44	Initiation and future prospects of colloidal metal halide double-perovskite nanocrystals: Cs₂AgBiX₆ (X = Cl, Br, I). Journal of Materials Chemistry A, 2018, 6, 21666-21675.	10.3	77
45	White-light emission from a blend of CdSeS nanocrystals of different Se:S ratio. Nanotechnology, 2007, 18, 075401.	2.6	72
46	Lowâ€Bandgap Cs₄CuSb₂Cl₁₂ Layered Double Perovskite: Synthesis, Reversible Thermal Changes, and Magnetic Interaction. Chemistry - an Asian Journal, 2018, 13, 2085-2092.	3.3	70
47	Ligand Engineering to Improve the Luminance Efficiency of CsPbBr₃ Nanocrystal Based Light-Emitting Diodes. Journal of Physical Chemistry C, 2018, 122, 13767-13773.	3.1	69
48	Terahertz Spectroscopic Probe of Hot Electron and Hole Transfer from Colloidal CsPbBr₃ Perovskite Nanocrystals. Nano Letters, 2017, 17, 5402-5407.	9.1	68
49	Mn Doping in Centimeter-Sized Layered 2D Butylammonium Lead Bromide (BA₂PbBr₄) Single Crystals and Their Optical Properties. Journal of Physical Chemistry C, 2019, 123, 9420-9427.	3.1	68
50	Origin of Unusual Excitonic Absorption and Emission from Colloidal Ag₂S Nanocrystals: Ultrafast Photophysics and Solar Cell. Journal of Physical Chemistry Letters, 2015, 6, 3915-3922.	4.6	66
51	Introducing Intermolecular Cationâ€Ï€ Interactions for Waterâ€Stable Low Dimensional Hybrid Lead Halide Perovskites. Angewandte Chemie - International Edition, 2021, 60, 18265-18271.	13.8	64
52	Sb³⁺â€“Er³⁺â€Codoped Cs₂NaInCl₆for Emitting Blue and Shortâ€Wave Infrared Radiation. Angewandte Chemie - International Edition, 2022, 61, .	13.8	62
53	Luminescence and solar cell from ligand-free colloidal AgInS2 nanocrystals. CrystEngComm, 2014, 16, 3605.	2.6	61
54	<i>Donâ€™t Let the Lead Out</i>: New Material Chemistry Approaches for Sustainable Lead Halide Perovskite Solar Cells. ACS Omega, 2020, 5, 29631-29641.	3.5	60

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55	Doping Controls Plasmonics, Electrical Conductivity, and Carrier-Mediated Magnetic Coupling in Fe and Sn Codoped In₂O₃ Nanocrystals: Local Structure Is the Key. Chemistry of Materials, 2015, 27, 892-900.	6.7	59
56	Correlation of Dielectric Confinement and Excitonic Binding Energy in 2D Layered Hybrid Perovskites Using Temperature Dependent Photoluminescence. Journal of Physical Chemistry C, 2020, 124, 16177-16185.	3.1	59
57	Origin of Photoluminescence and XAFS Study of (ZnS)_{1â€“<i>x</i>}(AgInS₂)_{<i>x</i>} Nanocrystals. Journal of Physical Chemistry Letters, 2014, 5, 167-173.	4.6	57
58	Ligand-Free, Colloidal, and Luminescent Metal Sulfide Nanocrystals. Journal of Physical Chemistry Letters, 2013, 4, 1676-1681.	4.6	54
59	Multifunctional Sn- and Fe-Codoped In₂O₃ Colloidal Nanocrystals: Plasmonics and Magnetism. Journal of Physical Chemistry Letters, 2014, 5, 2306-2311.	4.6	53
60	Luminescence in Mn-doped CdS nanocrystals. Bulletin of Materials Science, 2008, 31, 561-568.	1.7	51
61	Crystal Structure Engineering by Fine-Tuning the Surface Energy: The Case of CdE (E = S/Se) Nanocrystals. Journal of Physical Chemistry Letters, 2011, 2, 706-712.	4.6	51
62	Molecular Intercalation and Electronic Two Dimensionality in Layered Hybrid Perovskites. Angewandte Chemie - International Edition, 2020, 59, 11653-11659.	13.8	49
63	Origin of Luminescence in Sb³⁺- and Bi³⁺-Doped Cs₂SnCl₆ Perovskites: Excited State Relaxation and Spinâ€“Orbit Coupling. Journal of Physical Chemistry Letters, 2021, 12, 10002-10008.	4.6	49
64	Inorganic Surface Ligands for Colloidal Nanomaterials. Zeitschrift Fur Physikalische Chemie, 2015, 229, 85-107.	2.8	47
65	Colloidal BaZrS₃ chalcogenide perovskite nanocrystals for thin film device fabrication. Nanoscale, 2021, 13, 1616-1623.	5.6	46
66	Size-Induced Enhancement of Carrier Density, LSPR Quality Factor, and Carrier Mobility in Crâ€“Sn Doped In₂O₃ Nanocrystals. Chemistry of Materials, 2017, 29, 9360-9368.	6.7	45
67	Internal Heterostructure of Anion-Exchanged Cesium Lead Halide Nanocubes. Journal of Physical Chemistry C, 2018, 122, 13399-13406.	3.1	44
68	Colloidal Nanocomposite of TiN and N-Doped Few-Layer Graphene for Plasmonics and Electrocatalysis. ACS Energy Letters, 2017, 2, 2251-2256.	17.4	36
69	Leadâ€Free Double Perovskite Cs₂AgInCl₆. Angewandte Chemie, 2021, 133, 11696-11707.	2.0	36
70	2D Nanocomposite of gâ€C₃N₄ and TiN Embedded Nâ€Doped Graphene for Photoelectrochemical Reduction of Water Using Sunlight. Advanced Materials Interfaces, 2018, 5, 1801488.	3.7	34
71	Graphene analogue BCN: Femtosecond nonlinear optical susceptibility and hot carrier dynamics. Chemical Physics Letters, 2010, 499, 152-157.	2.6	33
72	Organic-free colloidal semiconductor nanocrystals as luminescent sensors for metal ions and nitroaromatic explosives. Chemical Communications, 2014, 50, 4743.	4.1	33

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73	Defect-Mediated Electronâ€“Hole Separation in Colloidal Ag₂Sâ€“AgInS₂ Hetero Dimer Nanocrystals Tailoring Luminescence and Solar Cell Properties. Journal of Physical Chemistry C, 2016, 120, 19461-19469.	3.1	33
74	Challenges and Strategies to Design Phosphors for Future White Light Emitting Diodes. Journal of Physical Chemistry C, 2022, 126, 8553-8564.	3.1	33
75	Dual Excitonic Emission in Hybrid 2D Layered Tin Iodide Perovskites. Journal of Physical Chemistry C, 2020, 124, 21129-21136.	3.1	32
76	Optically Bifunctional Heterostructured Nanocrystals. Journal of Physical Chemistry C, 2008, 112, 8229-8233.	3.1	31
77	Delocalized Electrons Mediated Magnetic Coupling in Mnâ€“Sn Codoped In₂O₃ Nanocrystals: Plasmonics Shows the Way. Chemistry of Materials, 2016, 28, 3620-3624.	6.7	31
78	Synthesis and optical properties of colloidal Cs2AgSb1â^’xBixCl6 double perovskite nanocrystals. Journal of Chemical Physics, 2019, 151, 161101.	3.0	28
79	Synthesis of CdSe Nanocrystals in a Noncoordinating Solvent: Effect of Reaction Temperature on Size and Optical Properties. Journal of Nanoscience and Nanotechnology, 2007, 7, 1965-1968.	0.9	26
80	Microscopic description of the evolution of the local structure and an evaluation of the chemical pressure concept in a solid solution. Physical Review B, 2014, 89, .	3.2	26
81	Colloidal thallium halide nanocrystals with reasonable luminescence, carrier mobility and diffusion length. Chemical Science, 2017, 8, 4602-4611.	7.4	26
82	Colloidal Synthesis, Optical Properties, and Hole Transport Layer Applications of Cu₂BaSnS₄ (CBTS) Nanocrystals. ACS Applied Energy Materials, 2019, 2, 3049-3055.	5.1	24
83	Bi³⁺â€Er³⁺ and Bi³⁺â€Yb³⁺ Codoped Cs₂AgInCl₆ Double Perovskite Nearâ€Infrared Emitters. Angewandte Chemie, 2020, 132, 11403-11407.	2.0	24
84	Dielectric confinement for designing compositions and optoelectronic properties of 2D layered hybrid perovskites. Physical Chemistry Chemical Physics, 2021, 23, 82-93.	2.8	24
85	Visible light-induced hydrogen generation using colloidal (ZnS)_{0.4}(AgInS₂)_{0.6} nanocrystals capped by S^{2â^’} ions. Journal of Materials Chemistry A, 2015, 3, 8276-8279.	10.3	23
86	Electronic grade and flexible semiconductor film employing oriented attachment of colloidal ligand-free PbS and PbSe nanocrystals at room temperature. Nanoscale, 2015, 7, 9204-9214.	5.6	23
87	First-Principles Study of the Effect of Organic Ligands on the Crystal Structure of CdS Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 6507-6511.	3.1	22
88	Seeded-growth, nanocrystal-fusion, ion-exchange and inorganic-ligand mediated formation of semiconductor-based colloidal heterostructured nanocrystals. CrystEngComm, 2014, 16, 9391-9407.	2.6	20
89	Strategy to overcome recombination limited photocurrent generation in CsPbX3 nanocrystal arrays. Applied Physics Letters, 2018, 112, .	3.3	19
90	Chiral Methylbenzylammonium Bismuth Iodide with Zero-Dimensional Perovskite Derivative Structure. Journal of Physical Chemistry C, 2022, 126, 9889-9897.	3.1	19

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91	g-C3N4:Sn-doped In2O3 (ITO) nanocomposite for photoelectrochemical reduction of water using solar light. Journal of Solid State Chemistry, 2020, 285, 121187.	2.9	17
92	Colloidal Sb³⁺-Doped Cs₂InCl₅Â·H₂O Perovskite Nanocrystals with Temperature-Dependent Luminescence. Journal of Physical Chemistry C, 2021, 125, 27671-27677.	3.1	16
93	Dual excitonic emissions and structural phase transition of octylammonium lead iodide 2D layered perovskite single crystal. Materials Research Express, 2019, 6, 124002.	1.6	15
94	Intervalley polaronic biexcitons in metal halide perovskite quantum dots. Physical Review B, 2021, 104, .	3.2	15
95	Iodineâ€“Iodine Interactions Suppressing Phase Transitions of 2D Layered Hybrid (I-(CH₂)_{<i>n</i>}-NH₃)₂PbI₄ (<i>n</i> =) Tj ETQq1 1 0.784314 rgBT /C	6.1	14
96	â€œPlenty of Roomâ€•at the Interface of Hybrid Metal Halide Perovskite Single Crystals. Nano Letters, 2021, 21, 8529-8531.	9.1	12
97	Solvothermal Synthesis of InP Quantum Dots. Journal of Nanoscience and Nanotechnology, 2009, 9, 5633-5636.	0.9	10
98	Dotierte Halbleiterâ€Nanokristalle: Lumineszenz, plasmonische und magnetische Eigenschaften. Angewandte Chemie, 2017, 129, 7144-7160.	2.0	10
99	Revealing the Band Structure of FAPI Quantum Dot Film and Its Interfaces with Electron and Hole Transport Layer Using Time Resolved Photoemission. Journal of Physical Chemistry C, 2020, 124, 3873-3880.	3.1	10
100	Third Harmonic Upconversion and Self-Trapped Excitonic Emission in 1D Pyridinium Lead Iodide. Journal of Physical Chemistry C, 2021, 125, 22674-22683.	3.1	10
101	Effect of chirality on the optical properties of layered hybrid perovskite<i>R</i>-and<i>S</i>-Î±-methylbenzylammonium lead iodide. Chemical Communications, 2022, 58, 7650-7653.	4.1	10
102	Electrical and Plasmonic Properties of Ligandâ€Free Sn⁴⁺â€Doped In₂O₃ (ITO) Nanocrystals. ChemPhysChem, 2016, 17, 710-716.	2.1	9
103	Reduction of Mn3+ to Mn2+ and near infrared plasmonics from Mnâ€“Sn codoped In2O3 nanocrystals. RSC Advances, 2016, 6, 79153-79159.	3.6	7
104	Neural Networks for Analysis of Optical Properties in 2D Layered Hybrid Lead Halide Perovskites. Journal of Physical Chemistry C, 2021, 125, 5251-5259.	3.1	7
105	Search for new transparent conductors: Effect of Ge doping on the conductivity of , and. Solid State Communications, 2010, 150, 1679-1682.	1.9	6
106	Interaction of CdSe and ZnO nanocrystals with electron-donor and -acceptor molecules. Chemical Physics Letters, 2013, 556, 200-206.	2.6	6
107	Molecular Intercalation and Electronic Two Dimensionality in Layered Hybrid Perovskites. Angewandte Chemie, 2020, 132, 11750-11756.	2.0	6
108	Introducing Intermolecular Cationâ€Ï€ Interactions for Waterâ€Stable Low Dimensional Hybrid Lead Halide Perovskites. Angewandte Chemie, 2021, 133, 18413-18419.	2.0	6

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109	Temperatureâ€Dependent Photoluminescence of Hexafluorobenzeneâ€Intercalated Phenethylammonium Tin Iodide 2D Perovskite. Chemistry - an Asian Journal, 2021, 16, 2745-2751.	3.3	3
110	Sb³⁺â€“Er³⁺â€Codoped Cs₂NaInCl₆for Emitting Blue and Shortâ€Wave Infrared Radiation. Angewandte Chemie, 2022, 134, .	2.0	3
111	Phase Stabilized Î±-CsPbI3 Perovskite Nanocrystals for Photodiode Applications (Laser Photonics Rev.) Tj ETQq1 1 0.784314 rgBT /Overl	8.7	2
112	Yb³⁺â€Doped Phenylethylammonium Lead Bromide 2D Layered Hybrid Perovskite for Nearâ€Infrared Emission. ChemNanoMat, 2022, 8, .	2.8	2