Dengfeng Peng

List of Publications by Year
in descending order

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88 papers	3,964 citations	81839 39 h-index	128225 60 g-index
92 all docs	92 docs citations	92 times ranked	3369 citing authors

#	Article	IF	Citations
1	Dynamic Pressure Mapping of Personalized Handwriting by a Flexible Sensor Matrix Based on the Mechanoluminescence Process. Advanced Materials, 2015, 27, 2324-2331.	11.1	468
2	Piezophotonic effect based on mechanoluminescent materials for advanced flexible optoelectronic applications. Nano Energy, 2019, 55, 389-400.	8.2	126
3	Mechanically Induced Light Emission and Infrared-Laser-Induced Upconversion in the Er-Doped CaZnOS Multifunctional Piezoelectric Semiconductor for Optical Pressure and Temperature Sensing. Journal of Physical Chemistry C, 2015, 119, 28136-28142.	1.5	123
4	Mechanically Excited Multicolor Luminescence in Lanthanide Ions. Advanced Materials, 2019, 31, e1807062.	11.1	120
5	A ZnS/CaZnOS Heterojunction for Efficient Mechanicalâ€toâ€Optical Energy Conversion by Conduction Band Offset. Advanced Materials, 2020, 32, e1907747.	11.1	114
6	Strong red emission in Pr doped (Bi0.5Na0.5)TiO3 ferroelectric ceramics. Journal of Applied Physics, 2011, 110, .	1.1	111
7	Recent Advances in Doped Mechanoluminescent Phosphors. ChemPlusChem, 2015, 80, 1209-1215.	1.3	107
8	Bright Upconversion Emission, Increased T_c, Enhanced Ferroelectric and Piezoelectric Properties in <scp><scp>E</scp></scp>râ€Doped <scp><scp>Ca</scp><scp>Bi</scp></scp>₄<scp><scp>Ti</scp></scp>₄<scp><scp>O</scp></scp><sub>15 Multifunctional Ferroelectric Oxides. Journal of the American Ceramic Society, 2013, 96, 184-190.	1.9	93
9	Lanthanide-Doped Energy Cascade Nanoparticles: Full Spectrum Emission by Single Wavelength Excitation. Chemistry of Materials, 2015, 27, 3115-3120.	3.2	92
10	Piezoelectricity in Multilayer Black Phosphorus for Piezotronics and Nanogenerators. Advanced Materials, 2020, 32, e1905795.	11.1	84
11	Selfâ€Recoverable Mechanically Induced Instant Luminescence from Cr³⁺â€Doped LiGa₅O₈. Advanced Functional Materials, 2021, 31, 2010685.	7.8	84
12	Tactile Sensors for Advanced Intelligent Systems. Advanced Intelligent Systems, 2019, 1, 1900090.	3.3	80
13	Controllable Growth of Aligned Monocrystalline CsPbBr₃ Microwire Arrays for Piezoelectricâ€Induced Dynamic Modulation of Singleâ€Mode Lasing. Advanced Materials, 2019, 31, e1900647.	11.1	76
14	A Stretchable Nanogenerator with Electric/Light Dualâ€Mode Energy Conversion. Advanced Energy Materials, 2016, 6, 1600829.	10.2	74
15	Blue excited photoluminescence of Pr doped CaBi2Ta2O9 based ferroelectrics. Journal of Alloys and Compounds, 2012, 511, 159-162.	2.8	72
16	Mechanoluminescence materials for advanced artificial skin. Science Bulletin, 2020, 65, 1147-1149.	4.3	62
17	Er doped BaBi4Ti4O15 multifunctional ferroelectrics: Up-conversion photoluminescence, dielectric and ferroelectric properties. Journal of Alloys and Compounds, 2013, 552, 463-468.	2.8	61
18	Establishing the Structural Integrity of Coreâ€“Shell Nanoparticles against Elemental Migration using Luminescent Lanthanide Probes. Angewandte Chemie - International Edition, 2015, 54, 12788-12790.	7.2	61

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19	Achieving Remote Stress and Temperature Dualâ€Modal Imaging by Doubleâ€Lanthanideâ€Activated Mechanoluminescent Materials. Advanced Functional Materials, 2021, 31, 2101567.	7.8	61
20	Hydrothermal synthesis of monodisperse Î±-Fe2O3 hexagonal platelets. Particuology, 2010, 8, 386-389.	2.0	59
21	Bioinspired Electronic Whisker Arrays by Pencilâ€Drawn Paper for Adaptive Tactile Sensing. Advanced Electronic Materials, 2016, 2, 1600093.	2.6	59
22	Polarization-induced enhancement of photoluminescence in Pr3+ doped ferroelectric diphase BaTiO3-CaTiO3 ceramics. Journal of Applied Physics, 2013, 114, .	1.1	57
23	Green and red emission for (K0.5Na0.5)NbO3:Pr ceramics. Journal of Applied Physics, 2012, 111, 046102.	1.1	56
24	Color-tunable upconversion emission and optical temperature sensing behaviour in Er-Yb-Mo codoped Bi_7Ti_4NbO_21 multifunctional ferroelectric oxide. Optical Materials Express, 2014, 4, 1545.	1.6	56
25	Dynamically Modulated GaN Whispering Gallery Lasing Mode for Strain Sensor. Advanced Functional Materials, 2019, 29, 1905051.	7.8	56
26	Bimodal Tactile Sensor without Signal Fusion for User-Interactive Applications. ACS Nano, 2022, 16, 2789-2797.	7.3	54
27	Mechanoluminescent hybrids from a natural resource for energyâ€related applications. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 1272-1284.	8.5	53
28	Room-Temperature Large and Reversible Modulation of Photoluminescence by in Situ Electric Field in Ergodic Relaxor Ferroelectrics. ACS Applied Materials & Interfaces, 2017, 9, 34042-34049.	4.0	52
29	An upconversion nanoprobe operating in the first biological window. Journal of Materials Chemistry B, 2015, 3, 3548-3555.	2.9	49
30	WS2/CsPbBr3 van der Waals heterostructure planar photodetectors with ultrahigh on/off ratio and piezo-phototronic effect-induced strain-gated characteristics. Nano Energy, 2019, 65, 104001.	8.2	48
31	Multiresponsive Emissions in Luminescent Ions Doped Quaternary Piezophotonic Materials for Mechanicalâ€toâ€Optical Energy Conversion and Sensing Applications. Advanced Functional Materials, 2021, 31, 2010265.	7.8	48
32	Hydrothermal growth of octahedral Fe3O4 crystals. Particuology, 2009, 7, 35-38.	2.0	45
33	Stimuli responsive lanthanide ions doped layered piezophotonic microcrystals for optical multifunctional sensing applications. Nano Energy, 2021, 87, 106177.	8.2	44
34	Nanophotonic energy storage in upconversion nanoparticles. Nano Energy, 2019, 56, 473-481.	8.2	43
35	Tuning Multimode Luminescence in Lanthanide(III) and Manganese(II) Coâ€Doped CaZnOS Crystals. Advanced Optical Materials, 2020, 8, 2000274.	3.6	42
36	Reversible luminescence modulation of Hoâ€doped K_{0.5}Na_{0.5}NbO₃ piezoelectrics with high luminescence contrast. Journal of the American Ceramic Society, 2018, 101, 2305-2312.	1.9	41

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37	Red emission in Pr doped CaBi4Ti4O15 ferroelectric ceramics. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1513-1516.	1.7	40
38	Mechanically induced strong red emission in samarium ions doped piezoelectric semiconductor CaZnOS for dynamic pressure sensing and imaging. Optics Communications, 2017, 395, 24-28.	1.0	40
39	Metal Halide Perovskite Arrays: From Construction to Optoelectronic Applications. Advanced Functional Materials, 2021, 31, 2005230.	7.8	40
40	Upconversion luminescence, ferroelectrics and piezoelectrics of Er Doped SrBi4Ti4O15. AIP Advances, 2012, 2, .	0.6	37
41	A new multifunctional Aurivillius oxide Na0.5Er0.5Bi4Ti4O15: Up-conversion luminescent, dielectric, and piezoelectric properties. Ceramics International, 2014, 40, 12477-12483.	2.3	37
42	Reversible upconversion switching for Ho/Yb codoped (K,Na)NbO₃ ceramics with excellent luminescence readout capability. Journal of the American Ceramic Society, 2018, 101, 5659-5674.	1.9	36
43	Bright upconversion luminescence and increased Tc in CaBi2Ta2O9:Er high temperature piezoelectric ceramics. Journal of Applied Physics, 2012, 111, .	1.1	35
44	â€œEnergy Relay Centerâ€•for doped mechanoluminescence materials: a case study on Cu-doped and Mn-doped CaZnOS. Physical Chemistry Chemical Physics, 2017, 19, 1190-1208.	1.3	35
45	One-scan fluorescence emission difference nanoscopy developed with excitation orthogonalized upconversion nanoparticles. Nanoscale, 2018, 10, 21025-21030.	2.8	35
46	Siteâ€Selective Occupancy of Eu²⁺ toward High Luminescence Switching Contrast in BaMgSiO₄â€Based Photochromic Materials. Advanced Optical Materials, 2021, 9, 2001626.	3.6	35
47	MgF2:Mn2+: novel material with mechanically-induced luminescence. Science Bulletin, 2022, 67, 707-715.	4.3	34
48	Strong green and red up-conversion emission in Ho3+, Yb3+ and Li+ co- or tri-doped SrAl2O4 ceramics. Journal of Alloys and Compounds, 2012, 529, 49-51.	2.8	33
49	Controlled fabrication, lasing behavior and excitonic recombination dynamics in single crystal CH3NH3PbBr3 perovskite cuboids. Science Bulletin, 2019, 64, 698-704.	4.3	33
50	Mechanoluminescence properties of red-emitting piezoelectric semiconductor MZnOS:Mn²⁺ (M = Ca, Ba) with layered structure. Journal of the Ceramic Society of Japan, 2016, 124, 702-705.	0.5	30
51	Visually aided tactile enhancement system based on ultrathin highly sensitive crack-based strain sensors. Applied Physics Reviews, 2020, 7, .	5.5	30
52	Intrinsic energy conversions for photon-generation in piezo-phototronic materials: A case study on alkaline niobates. Nano Energy, 2018, 47, 150-171.	8.2	29
53	Mechanoluminescent materials for athletic analytics in sports science. Science Bulletin, 2021, 66, 206-209.	4.3	27
54	Halogen-doped phosphorescent carbon dots for grayscale patterning. Light: Science and Applications, 2022, 11, .	7.7	27

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55	Luminescent, dielectric, and ferroelectric properties of Pr doped Bi7Ti4NbO21 multifunctional ceramics. Journal of Applied Physics, 2013, 114, .	1.1	26
56	Effective Repeatable Mechanoluminescence in Heterostructured Li_{1â^'}_xNa_xNbO₃: Pr³⁺. Small, 2021, 17, e2103441.	5.2	26
57	Tuning NaYF4 Nanoparticles through Alkaline Earth Doping. Nanomaterials, 2013, 3, 583-591.	1.9	23
58	Enhanced Luminescence of NaY_{0.6â€“x}Ce_{0.1}Gd_{0.3}Eu_xF₄ Nanorods by Energy Transfers between Ce³⁺, Gd³⁺, and Eu³⁺. Journal of Physical Chemistry C, 2014, 118, 30197-30201.	1.5	21
59	Crystal-Orientation-Related Dynamic Tuning of the Lasing Spectra of CdS Nanobelts by Piezoelectric Polarization. ACS Nano, 2019, 13, 5049-5057.	7.3	21
60	Interface synergistic effects induced multi-mode luminescence. Nano Research, 2022, 15, 4457-4465.	5.8	21
61	Modeling Polyhedron Distortion for Mechanoluminescence in Mixed-Anion Compounds RE₂O₂S:Ln³⁺. Chemistry of Materials, 2022, 34, 5311-5319.	3.2	21
62	Molten Salt Shielded Synthesis of Monodisperse Layered CaZnOSâ€Based Semiconductors for Piezophotonic and Xâ€Ray Detection Applications. Small, 2022, 18, e2107437.	5.2	20
63	Epitaxial lift-off for controllable single-crystalline perovskites. Science Bulletin, 2021, 66, 6-8.	4.3	18
64	Rational design of an ITO/CuS nanosheet network composite film as a counter electrode for flexible dye sensitized solar cells. Journal of Materials Chemistry C, 2016, 4, 8130-8134.	2.7	17
65	One-step synthesis of CdTe branched nanowires and nanorod arrays. Applied Surface Science, 2011, 257, 7684-7688.	3.1	16
66	Luminescence in Manganese (II)-Doped SrZn2S2O Crystals From Multiple Energy Conversion. Frontiers in Chemistry, 2020, 8, 752.	1.8	15
67	Reproducible mechanical-to-optical energy conversion in Mn (II) doped sphalerite ZnS. Journal of Luminescence, 2021, 232, 117838.	1.5	15
68	Bright Green Emission in Ho⁺³-Yb⁺³Co-Doped Bi₁_/₂Na₁_/₂TiO₃Ferroelectric Ceramics and the Optical Thermometry Behavior. Ferroelectrics, 2015, 487, 133-141.	0.3	14
69	CdS@SiO₂Core-Shell Electroluminescent Nanorod Arrays Based on a Metal-Insulator-Semiconductor Structure. Small, 2016, 12, 5734-5740.	5.2	14
70	Rare earth orthoniobate photochromics with self-activated upconversion emissions for high-performance optical storage applications. Journal of Materials Chemistry C, 2021, 9, 13841-13850.	2.7	14
71	Fast self-bleaching Nb2O5-based photochromics for high security dynamic anti-counterfeiting and optical storage applications. Chemical Engineering Journal, 2022, 435, 134801.	6.6	14
72	Up-conversion luminescence of Er³⁺ and Yb³⁺ co-doped CaBi₂Ta₂O₉ multifunctional ferroelectrics. Journal of Advanced Dielectrics, 2014, 04, 1450018.	1.5	13

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73	Largely enhanced electromechanical properties of BaTiO3-(Na0.5Er0.5)TiO3 lead-free piezoelectric ceramics. Applied Physics Letters, 2014, 105, 082901.	1.5	12
74	A highly thermal stable and waterproof red phosphor: Pr3+-doped Sr2Al2SiO7. Journal of Materials Science, 2013, 48, 7981-7985.	1.7	11
75	Upconversion photoluminescence properties of Er3+ doped CaBi2Nb2O9 phosphors for temperature sensing. Journal of Materials Science: Materials in Electronics, 2017, 28, 11921-11925.	1.1	10
76	Photoluminescent and Dielectric Characterizations of Pr Doped CaBi₂Nb₂O₉Multifunctional Ferroelectrics. Ferroelectrics, 2013, 450, 113-120.	0.3	8
77	Broadband multimodal emission in Sb-doped CaZnOS-layered semiconductors. Science China Materials, 2022, 65, 1329-1336.	3.5	8
78	Mixed-solvent thermal synthesis and magnetic properties of flower-like microstructured nickel. Particuology, 2012, 10, 392-396.	2.0	6
79	Single-band near-infrared upconversion emission and visible-light absorption in highly doped pseudo-perovskite oxides. Solar Energy Materials and Solar Cells, 2020, 205, 110253.	3.0	6
80	Mechanoluminescent materials for tactile sensors. , 2021, , 91-112.		6
81	Photoluminescence and thermal stability of yellow-emitting Pr3+ doped CaAl2O4 phosphors. Journal of Advanced Dielectrics, 2013, 03, 1350022.	1.5	5
82	High-Brightness Perovskite Microcrystalline Light-Emitting Diodes. Journal of Physical Chemistry Letters, 2022, 13, 2963-2968.	2.1	5
83	Mechanoluminescence: Mechanically Excited Multicolor Luminescence in Lanthanide Ions (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Ov	11.1	4
84	5d â†' 4f transition of a lanthanide-activated MGa₂S₄ (M = Ca, Sr) semiconductor for mechanical-to-light energy conversion mediated by structural distortion. Dalton Transactions, 2022, 51, 10457-10465.	1.6	4
85	Piezophotonics: Multiresponsive Emissions in Luminescent Ions Doped Quaternary Piezophotonic Materials for Mechanicalâ€toâ€Optical Energy Conversion and Sensing Applications (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Ov	19.0	4
86	Continuous-wave lasing from quasi-2D perovskites. Science Bulletin, 2021, 66, 521-523.	4.3	1
87	Frontispiece: Recent Advances in Doped Mechanoluminescent Phosphors. ChemPlusChem, 2015, 80, .	1.3	0
88	Siteâ€Selective Occupancy of Eu²⁺ toward High Luminescence Switching Contrast in BaMgSiO₄â€Based Photochromic Materials (Advanced Optical Materials 6/2021). Advanced Optical Materials, 2021, 9, 2170021.	3.6	0