

# Cassandra L Fraser

## List of Publications by Year in descending order

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81  
papers

6,610  
citations

66315

42  
h-index

62565

80  
g-index

86  
all docs

86  
docs citations

86  
times ranked

5046  
citing authors

#	ARTICLE	IF	CITATIONS
1	A dual-emissive-materials design concept enables tumour hypoxia imaging. <i>Nature Materials</i> , 2009, 8, 747-751.	13.3	941
2	Polymorphism and Reversible Mechanochromic Luminescence for Solid-State Difluoroboron Avobenzene. <i>Journal of the American Chemical Society</i> , 2010, 132, 2160-2162.	6.6	765
3	Multi-Emissive Difluoroboron Dibenzoylmethane Polylactide Exhibiting Intense Fluorescence and Oxygen-Sensitive Room-Temperature Phosphorescence. <i>Journal of the American Chemical Society</i> , 2007, 129, 8942-8943.	6.6	527
4	In vivo optical molecular imaging and analysis in mice using dorsal window chamber models applied to hypoxia, vasculature and fluorescent reporters. <i>Nature Protocols</i> , 2011, 6, 1355-1366.	5.5	224
5	Mechanochromic Luminescence and Aggregation Induced Emission of Dinaphthoylmethane $\hat{I}^2$ -Diketones and Their Boronated Counterparts. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 1242-1251.	4.0	175
6	Aromatic Difluoroboron $\hat{I}^2$ -Diketonate Complexes: Effects of $\hat{I}^2$ -Conjugation and Media on Optical Properties. <i>Inorganic Chemistry</i> , 2013, 52, 3597-3610.	1.9	166
7	Alkyl chain length effects on solid-state difluoroboron $\hat{I}^2$ -diketonate mechanochromic luminescence. <i>Journal of Materials Chemistry</i> , 2011, 21, 8409.	6.7	161
8	The Relationship of Solid-State Plasticity to Mechanochromic Luminescence in Difluoroboron Avobenzene Polymorphs. <i>Advanced Functional Materials</i> , 2013, 23, 1422-1430.	7.8	158
9	Boron Polylactide Nanoparticles Exhibiting Fluorescence and Phosphorescence in Aqueous Medium. <i>ACS Nano</i> , 2008, 2, 1252-1258.	7.3	134
10	Site-Isolated Luminescent Europium Complexes with Polyester Macroligands: Metal-Centered Heteroarm Stars and Nanoscale Assemblies with Labile Block Junctions. <i>Journal of the American Chemical Society</i> , 2002, 124, 8526-8527.	6.6	127
11	Reversible solid-state mechanochromic fluorescence from a boron lipid dye. <i>Journal of Materials Chemistry</i> , 2011, 21, 8295.	6.7	121
12	Mechanochromic luminescence of halide-substituted difluoroboron $\hat{I}^2$ -diketonate dyes. <i>Journal of Materials Chemistry C</i> , 2015, 3, 352-363.	2.7	119
13	Oxygen Sensing Difluoroboron Dinaphthoylmethane Polylactide. <i>Macromolecules</i> , 2015, 48, 2967-2977.	2.2	117
14	Emission Color Tuning with Polymer Molecular Weight for Difluoroboron Dibenzoylmethane-Polylactide. <i>Advanced Materials</i> , 2008, 20, 2099-2104.	11.1	111
15	Arene effects on difluoroboron $\hat{I}^2$ -diketonate mechanochromic luminescence. <i>Journal of Materials Chemistry</i> , 2011, 21, 8401.	6.7	110
16	Efficient Synthesis of 4-, 5-, and 6-Methyl-2,2'-bipyridine by a Negishi Cross-Coupling Strategy Followed by High-Yield Conversion to Bromo- and Chloromethyl-2,2'-bipyridines. <i>Journal of Organic Chemistry</i> , 1998, 63, 10048-10051.	1.7	108
17	Oxygen Sensing Difluoroboron $\hat{I}^2$ -Diketonate Polylactide Materials with Tunable Dynamic Ranges for Wound Imaging. <i>ACS Sensors</i> , 2016, 1, 1366-1373.	4.0	104
18	Architectural Diversity via Metal Template-Assisted Polymer Synthesis: A Macroligand Chelation Approach to Linear and Star-Shaped Polymeric Ruthenium Tris(bipyridine) Complexes. <i>Macromolecules</i> , 2000, 33, 4053-4060.	2.2	90

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19	Biocompatible Polyester Macroligands: A New Subunits for the Assembly of Star-Shaped Polymers with Luminescent and Cleavable Metal Cores. <i>Biomacromolecules</i> , 2001, 2, 223-232.	2.6	86
20	Dual-Emissive Difluoroboron Naphthyl-Phenyl $\beta^2$ -Diketonate Polylactide Materials: Effects of Heavy Atom Placement and Polymer Molecular Weight. <i>Macromolecules</i> , 2014, 47, 3736-3746.	2.2	86
21	Transition Metals as Templates for Multifunctional Initiators: A Bulk Atom Transfer Radical Polymerization of Styrene Using Di-, Tetra- and Hexafunctional Ruthenium Tris(bipyridine) Reagents. <i>Macromolecules</i> , 1998, 31, 6715-6717.	2.2	85
22	Mechanochromic Luminescence Quenching: Force-Enhanced Singlet-to-Triplet Intersystem Crossing for Iodide-Substituted Difluoroboron $\beta^2$ -Dibenzoylmethane $\beta^2$ -Dodecane in the Solid State. <i>Inorganic Chemistry</i> , 2010, 49, 10747-10749.	1.9	85
23	Modified VEGF-A mRNA induces sustained multifaceted microvascular response and accelerates diabetic wound healing. <i>Scientific Reports</i> , 2018, 8, 17509.	1.6	80
24	Role of Boron in the Polymer Chemistry and Photophysical Properties of Difluoroboron $\beta^2$ -Dibenzoylmethane Polylactide. <i>Macromolecules</i> , 2009, 42, 8627-8633.	2.2	76
25	Stereocomplexed Poly(lactic acid) $\beta^2$ -Poly(ethylene glycol) Nanoparticles with Dual-Emissive Boron Dyes for Tumor Accumulation. <i>ACS Nano</i> , 2010, 4, 4989-4996.	7.3	72
26	Luminescence Oxygen Sensor Based on a Ruthenium(II) Star Polymer Complex. <i>Analytical Chemistry</i> , 2010, 82, 917-921.	3.2	72
27	Tailoring Oxygen Sensitivity with Halide Substitution in Difluoroboron Dibenzoylmethane Polylactide Materials. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 23633-23643.	4.0	72
28	Metal complexes with polymeric ligands: Chelation and metalloinitiation approaches to metal tris(bipyridine)-containing materials. <i>Journal of Polymer Science Part A</i> , 2000, 38, 4704-4716.	2.5	71
29	Metal-Centered Star Block Copolymers: A Amphiphilic Iron Tris(bipyridine)-Centered Polyoxazolines and Their Chemical Fragmentation to Bipyridine-Centered BAB Triblock Copolymers. <i>Macromolecules</i> , 1999, 32, 1341-1347.	2.2	70
30	Iron Tris(bipyridine)-Centered Star Block Copolymers: A Chelation of Triblock Macroligands Generated by ROP and ATRP. <i>Macromolecules</i> , 2004, 37, 2718-2727.	2.2	69
31	Optical imaging of tumor hypoxia dynamics. <i>Journal of Biomedical Optics</i> , 2010, 15, 1.	1.4	68
32	Difluoroboron Dibenzoylmethane PCL-PLA Block Copolymers: Matrix Effects on Room Temperature Phosphorescence. <i>Macromolecules</i> , 2009, 42, 3162-3169.	2.2	66
33	Mechanochromic luminescence and aggregation induced emission for a metal-free $\beta^2$ -diketone. <i>Chemical Communications</i> , 2015, 51, 3359-3362.	2.2	65
34	Effects of $\beta^2$ -Substitution on Mechanochromic Luminescence and Aggregation-Induced Emission of Difluoroboron $\beta^2$ -Diketonate Dyes. <i>Journal of Physical Chemistry C</i> , 2016, 120, 22539-22548.	1.5	63
35	Poly(methyl methacrylates) with Ruthenium Tris(bipyridine) Cores via NiBr <sub>2</sub> (PR <sub>3</sub> ) <sub>2</sub> -Catalyzed Atom Transfer Radical Polymerization (ATRP). <i>Macromolecules</i> , 2000, 33, 7404-7412.	2.2	62
36	Difluoroboron $\beta^2$ -diketonate materials with long-lived phosphorescence enable lifetime based oxygen imaging with a portable cost effective camera. <i>Analytical Methods</i> , 2016, 8, 3109-3114.	1.3	61

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37	Intracellular Uptake and Trafficking of Difluoroboron Dibenzoylmethane $\pi$ -Polylactide Nanoparticles in HeLa Cells. <i>ACS Nano</i> , 2010, 4, 2735-2747.	7.3	59
38	Synthesis of Halomethyl and Other Bipyridine Derivatives by Reaction of 4,4 $\pi$ -Bis[(trimethylsilyl)methyl]-2,2 $\pi$ -bipyridine with Electrophiles in the Presence of Fluoride Ion. <i>Journal of Organic Chemistry</i> , 1997, 62, 9314-9317.	1.7	56
39	Polymerization of 2-Ethyl-2-oxazoline Using Di-, Tetra-, and Hexafunctional Ruthenium Tris(bipyridine) Metalloinitiators. <i>Macromolecules</i> , 1999, 32, 6925-6932.	2.2	54
40	Iron Tris(dibenzoylmethane $\pi$ polylactide). <i>Macromolecules</i> , 2010, 43, 4909-4920.	2.2	51
41	Synthesis and Fluorescent Properties of Difluoroboron Dibenzoylmethane Polycaprolactone. <i>Macromolecules</i> , 2009, 42, 3092-3097.	2.2	48
42	Meta-Alkoxy-Substituted Difluoroboron Dibenzoylmethane Complexes as Environment-Sensitive Materials. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 32008-32017.	4.0	45
43	Multi-stimuli responsive luminescent azepane-substituted $\hat{I}^2$ -diketones and difluoroboron complexes. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1866-1874.	3.2	44
44	Stimuli responsive furan and thiophene substituted difluoroboron $\hat{I}^2$ -diketonate materials. <i>Materials Chemistry Frontiers</i> , 2017, 1, 158-166.	3.2	44
45	Copper ATRP Catalysts with Quadridentate Amine Ligands: $\pi$ The Effects of Steric and Electronic Tuning on the Polymerization of Methyl Methacrylate. <i>Macromolecules</i> , 2000, 33, 8618-8628.	2.2	42
46	Structure $\pi$ mechanical property correlations in mechanochromic luminescent crystals of boron difluoride dibenzoylmethane derivatives. <i>IUCr</i> , 2015, 2, 611-619.	1.0	42
47	Biosurfactant-Mediated Membrane Depolarization Maintains Viability during Oxygen Depletion in <i>Bacillus subtilis</i> . <i>Current Biology</i> , 2020, 30, 1011-1022.e6.	1.8	41
48	Phosphorescence Tuning through Heavy Atom Placement in Unsymmetrical Difluoroboron $\hat{I}^2$ $\pi$ Diketonate Materials. <i>Chemistry - A European Journal</i> , 2018, 24, 1859-1869.	1.7	37
49	Blue thermally activated delayed fluorescence from a biphenyl difluoroboron $\hat{I}^2$ -diketonate. <i>RSC Advances</i> , 2016, 6, 81631-81635.	1.7	36
50	Modulating Mechanochromic Luminescence Quenching of Alkylated Iodo Difluoroboron Dibenzoylmethane Materials. <i>Journal of Physical Chemistry C</i> , 2016, 120, 14289-14300.	1.5	36
51	Color Tuning of Mechanochromic Luminescent $\hat{I}^2$ -Diketones via Boron Coordination and Donor-Acceptor Effects. <i>Journal of Physical Chemistry C</i> , 2018, 122, 19090-19099.	1.5	36
52	Camera Method for Monitoring a Mechanochromic Luminescent $\hat{I}^2$ -Diketone Dye with Rapid Recovery. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 17603-17612.	4.0	34
53	Luminescent Difluoroboron $\hat{I}^2$ $\pi$ Diketonate PEG $\pi$ PLA Oxygen Nanosensors for Tumor Imaging. <i>Macromolecular Rapid Communications</i> , 2015, 36, 694-699.	2.0	32
54	Luminescent Difluoroboron $\hat{I}^2$ -Diketonate PLA $\pi$ PEG Nanoparticle. <i>Biomacromolecules</i> , 2017, 18, 551-561.	2.6	30

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55	Controlling solid-state optical properties of stimuli responsive dimethylamino-substituted dibenzoylmethane materials. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1804-1817.	3.2	23
56	Oxygen-Sensing Difluoroboron Thienyl Phenyl $\beta$ -Diketone Polyactides. <i>ChemPlusChem</i> , 2017, 82, 399-406.	1.3	22
57	Luminescent polymeric ruthenium complexes with polystyrene-b-poly(methyl methacrylate) macroligands: The sequential activation of initiator sites for blocks generated by parallel polymerization mechanisms. <i>Journal of Polymer Science Part A</i> , 2002, 40, 4250-4255.	2.5	20
58	Iron Tris(dibenzoylmethane) Centered PCL and PCL- $\beta$ -PLA Stars from Dual Functional Catalyst-Initiators. <i>Macromolecular Chemistry and Physics</i> , 2010, 211, 1272-1279.	1.1	19
59	Thienyl Difluoroboron $\beta$ -Diketones in Solution and Polyactide Media. <i>Australian Journal of Chemistry</i> , 2016, 69, 537.	0.5	19
60	Amplified Heavy-Atom Free Phosphorescence from <i>meta</i> -Dimethoxy Difluoroboron $\beta$ -Diketone Charge-Transfer Materials. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20488-20496.	1.5	18
61	Luminescent Donor-Acceptor $\beta$ -Diketones: Modulation of Emission by Solvent Polarity and Group II Metal Binding. <i>Journal of Fluorescence</i> , 2009, 19, 881-889.	1.3	16
62	An Easy Method To Monitor Lactide Polymerization with a Boron Fluorescent Probe. <i>ACS Applied Materials &amp; Interfaces</i> , 2010, 2, 3069-3074.	4.0	16
63	Supercooled Liquid $\beta$ -Diketones with Mechanoresponsive Emission. <i>Journal of Physical Chemistry C</i> , 2019, 123, 25788-25800.	1.5	15
64	Ring Size Effects on Multi-Stimuli Responsive Luminescent Properties of Cyclic Amine Substituted $\beta$ -Diketones and Difluoroboron Complexes. <i>Chemistry - an Asian Journal</i> , 2019, 14, 1849-1859.	1.7	15
65	Methoxy-Substituted Difluoroboron Benzoylacetone Complexes with Color-Tunable Phosphorescence. <i>ChemPhotoChem</i> , 2019, 3, 31-36.	1.5	13
66	Nitric oxide stimulates type IV MSHA pilus retraction in <i>Vibrio cholerae</i> via activation of the phosphodiesterase CdpA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	13
67	Laser Phosphoroscope and Applications to Room-Temperature Phosphorescence. <i>Applied Spectroscopy</i> , 2011, 65, 1321-1324.	1.2	12
68	Difluoroboron $\beta$ -diketonate polylactic acid oxygen nanosensors for intracellular neuronal imaging. <i>Scientific Reports</i> , 2021, 11, 1076.	1.6	11
69	Labelling primary immune cells using bright blue fluorescent nanoparticles. <i>Biomaterials Science</i> , 2020, 8, 1897-1909.	2.6	9
70	Dual-emissive, oxygen-sensing boron nanoparticles quantify oxygen consumption rate in breast cancer cells. <i>Journal of Biomedical Optics</i> , 2020, 25, .	1.4	6
71	Environment-Sensitive Azepane-Substituted $\beta$ -Diketones and Difluoroboron Complexes with Restricted C-C Bond Rotation. <i>Journal of Physical Chemistry C</i> , 2019, 123, 23124-23130.	1.5	5
72	Multi-Stimuli Responsive Luminescent $\beta$ -Diketones and Difluoroboron Complexes with Heterocyclic Substituents. <i>Journal of Fluorescence</i> , 2021, 31, 39-49.	1.3	5

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73	Adapting Polymeric Metal Complexes for Biomedical Applications. ACS Symposium Series, 2008, , 95-115.	0.5	2
74	Fabrication and Degradation of Nanofibers Based on Luminescent Boron Dye-PLGA Blends. ACS Symposium Series, 2010, , 33-42.	0.5	2
75	Metal complexes with polymeric ligands: modular synthesis of multifunctional materials for applications in biomedicine and nanotechnology. Macromolecular Symposia, 2002, 186, 161-164.	0.4	1
76	Site-Isolated Luminescent Lanthanide Complexes with Polymeric Ligands. ACS Symposium Series, 2004, , 233-246.	0.5	1
77	A Comparative Study of Polymer Composition, Molecular Weight, and Counterion Effects on the Chelation of Bipyridine Macroligands to Iron(II). ACS Symposium Series, 2006, , 17-29.	0.5	1
78	Polymeric Platinum(II) Bipyridine Dithiolate Complexes: Exploring the Influence of Macromolecular Outer Spheres on Solvatochromism with UV-Vis Spectroscopy. Macromolecular Chemistry and Physics, 2010, 211, 1246-1253.	1.1	1
79	Crystal Engineering: The Relationship of Solid-State Plasticity to Mechanochromic Luminescence in Difluoroboron Avobenzene Polymorphs (Adv. Funct. Mater. 11/2013). Advanced Functional Materials, 2013, 23, 1476-1476.	7.8	1
80	Meta-Dimethoxy-Substituted Difluoroboron Dibenzoylmethane Poly(Lactic Acid) Nanoparticles for Luminescence Anisotropy. Macromolecular Chemistry and Physics, 2018, 219, 1800240.	1.1	1
81	Quantifying the effects of anesthesia on intracellular oxygen via low-cost portable microscopy using dual-emissive nanoparticles. Biomedical Optics Express, 0, , .	1.5	1