Stephane Petoud

List of Publications by Year
in descending order

113 papers	7,590 citations	57758 44 h-index	53230 85 g-index
119 all docs	119 docs citations	119 times ranked	7648 citing authors

#	Article	IF	Citations
1	Zinc-Adeninate Metalâ"Organic Framework for Aqueous Encapsulation and Sensitization of Near-infrared and Visible Emitting Lanthanide Cations. Journal of the American Chemical Society, 2011, 133, 1220-1223.	13.7	589
2	Near-Infrared Luminescent Lanthanide MOF Barcodes. Journal of the American Chemical Society, 2009, 131, 18069-18071.	13.7	448
3	Stable Lanthanide Luminescence Agents Highly Emissive in Aqueous Solution:Â Multidentate 2-Hydroxyisophthalamide Complexes of Sm3+, Eu3+, Tb3+, Dy3+. Journal of the American Chemical Society, 2003, 125, 13324-13325.	13.7	438
4	Luminescence Properties of Self-Aggregating TbIII-DOTA-Functionalized Calix[4]arenes. Frontiers in Chemistry, 2018, 6, 1.	3.6	358
5	Brilliant Sm, Eu, Tb, and Dy Chiral Lanthanide Complexes with Strong Circularly Polarized Luminescence. Journal of the American Chemical Society, 2007, 129, 77-83.	13.7	278
6	Turnâ€On Luminescence Sensing and Realâ€Time Detection of Traces of Water in Organic Solvents by a Flexible Metalâ€"Organic Framework. Angewandte Chemie - International Edition, 2015, 54, 1651-1656.	13.8	277
7	Lanthanide near infrared imaging in living cells with Yb ³⁺ nano metal organic frameworks. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17199-17204.	7.1	248
8	Lanthanide Podates with Predetermined Structural and Photophysical Properties:â€‰ Strongly Luminescent Self-Assembled Heterodinuclear dâ^'f Complexes with a Segmental Ligand Containing Heterocyclic Imines and Carboxamide Binding Units. Journal of the American Chemical Society, 1996, 118, 6681-6697.	13.7	233
9	Sensitization of Near-Infrared-Emitting Lanthanide Cations in Solution by Tropolonate Ligands. Angewandte Chemie - International Edition, 2005, 44, 2508-2512.	13.8	220
10	Ga³⁺/Ln³⁺ Metallacrowns: A Promising Family of Highly Luminescent Lanthanide Complexes That Covers Visible and Near-Infrared Domains. Journal of the American Chemical Society, 2016, 138, 5100-5109.	13.7	170
11	Highly Emitting Near-Infrared Lanthanide â€œEncapsulated Sandwichâ€•Metallacrown Complexes with Excitation Shifted Toward Lower Energy. Journal of the American Chemical Society, 2014, 136, 1526-1534.	13.7	161
12	A Strategy to Protect and Sensitize Near-Infrared Luminescent Nd³⁺ and Yb³⁺:â€‰ Organic Tropolonate Ligands for the Sensitization of Ln³⁺-Doped NaYF₄ Nanocrystals. Journal of the American Chemical Society, 2007, 129, 14834-14835.	13.7	136
13	Influence of charge-transfer states on the Eu(III) luminescence in mononuclear triple helical complexes with tridentate aromatic ligands. Journal of Luminescence, 1999, 82, 69-79.	3.1	135
14	Near-infrared emitting ytterbium metalâ€"organic frameworks with tunable excitation properties. Chemical Communications, 2009, , 4506.	4.1	135
15	Pyridine-based lanthanide complexes: towards bimodal agents operating as near infrared luminescent and MRI reporters. Chemical Communications, 2008, , 6591.	4.1	132
16	Near-infrared emitting probes for biological imaging: Organic fluorophores, quantum dots, fluorescent proteins, lanthanide(III) complexes and nanomaterials. Journal of Luminescence, 2017, 189, 19-43.	3.1	130
17	Luminescent Properties of Lanthanide Nitrato Complexes with Substituted Bis(benzimidazolyl)pyridines. Inorganic Chemistry, 1997, 36, 1345-1353.	4.0	117
18	Polymetallic Lanthanide Complexes with PAMAM-Naphthalimide Dendritic Ligands:â€‰ Luminescent Lanthanide Complexes Formed in Solution. Journal of the American Chemical Society, 2004, 126, 16278-16279.	13.7	117

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19	Optimizing Millisecond Time Scale Near-Infrared Emission in Polynuclear Chrome(III)â€“Lanthanide(III) Complexes. Journal of the American Chemical Society, 2012, 134, 12675-12684.	13.7	117
20	Near-Infrared Optical Imaging of Necrotic Cells by Photostable Lanthanide-Based Metallacrowns. Journal of the American Chemical Society, 2017, 139, 8388-8391.	13.7	109
21	Optical sensitization and upconversion in discrete polynuclear chromiumâ€“lanthanide complexes. Coordination Chemistry Reviews, 2012, 256, 1644-1663.	18.8	104
22	Rare Earth pcu Metalâ€“Organic Framework Platform Based on RE₄(Î¼₃-OH)₄(COO)₆²⁺ Clusters: Rational Design, Directed Synthesis, and Deliberate Tuning of Excitation Wavelengths. Journal of the American Chemical Society, 2017, 139, 9333-9340.	13.7	102
23	Incorporating Lanthanide Cations with Cadmium Selenide Nanocrystals:Â A Strategy to Sensitize and Protect Tb(III). Journal of the American Chemical Society, 2005, 127, 16752-16753.	13.7	96
24	Stability and Size-Discriminating Effects in Mononuclear Lanthanide Triple-Helical Building Blocks with Tridentate Aromatic Ligands. Inorganic Chemistry, 1997, 36, 5750-5760.	4.0	94
25	Azuleneâ€Moietyâ€Based Ligand for the Efficient Sensitization of Four Nearâ€Infrared Luminescent Lanthanide Cations: Nd³⁺, Er³⁺, Tm³⁺, and Yb³⁺. Chemistry - A European Journal, 2008, 14, 1264-1272.	3.3	93
26	Lanthanide Sensitization in IIâ^'VI Semiconductor Materials: A Case Study with Terbium(III) and Europium(III) in Zinc Sulfide Nanoparticles. Journal of Physical Chemistry A, 2011, 115, 4031-4041.	2.5	93
27	Novel antennae for the sensitization of near infrared luminescent lanthanide cations. Comptes Rendus Chimie, 2010, 13, 668-680.	0.5	89
28	Pyridineâ€Based Lanthanide Complexes Combining MRI and NIR Luminescence Activities. Chemistry - A European Journal, 2012, 18, 1419-1431.	3.3	89
29	Optimizing Sensitization Processes in Dinuclear Luminescent Lanthanide Oligomers: Selection of Rigid Aromatic Spacers. Journal of the American Chemical Society, 2011, 133, 16219-16234.	13.7	80
30	Polynuclear Sm^{III} Polyamidoamineâ€Based Dendrimer: A Single Probe for Combined Visible and Nearâ€Infrared Liveâ€Cell Imaging. Angewandte Chemie - International Edition, 2014, 53, 2927-2930.	13.8	75
31	Isoquinoline-Based Lanthanide Complexes: Bright NIR Optical Probes and Efficient MRI Agents. Inorganic Chemistry, 2012, 51, 2522-2532.	4.0	64
32	Synthesis and Metal Binding Properties of Salicylate-, Catecholate-, and Hydroxypyridinonate-Functionalized Dendrimers. Chemistry - A European Journal, 2001, 7, 272-279.	3.3	60
33	Nâ€Heterocyclic Tridentate Aromatic Ligands Bound to [Ln(hexafluoroacetylacetonate)₃] Units: Thermodynamic, Structural, and Luminescent Properties. Chemistry - A European Journal, 2012, 18, 7155-7168.	3.3	59
34	Near-Infrared to Visible Light-Upconversion in Molecules: From Dream to Reality. Journal of Physical Chemistry C, 2013, 117, 26957-26963.	3.1	55
35	On-Demand Degradation of Metalâ€“Organic Framework Based on Photocleavable Dianthracene-Based Ligand. Journal of the American Chemical Society, 2018, 140, 10820-10828.	13.7	54
36	Taming Lanthanide-Centered Upconversion at the Molecular Level. Inorganic Chemistry, 2016, 55, 9964-9972.	4.0	53

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37	Near infrared excitation and emission in rare earth MOFs via encapsulation of organic dyes. Chemical Science, 2018, 9, 8099-8102.	7.4	53
38	A Postsynthetic Modification of IIâ€“VI Semiconductor Nanoparticles to Create Tb³⁺ and Eu³⁺ Luminophores. Journal of Physical Chemistry C, 2013, 117, 14451-14460.	3.1	52
39	Ship-in-a-Bottle Preparation of Long Wavelength Molecular Antennae in Lanthanide Metalâ€“Organic Frameworks for Biological Imaging. Journal of the American Chemical Society, 2020, 142, 8776-8781.	13.7	50
40	Smaller than a nanoparticle with the design of discrete polynuclear molecular complexes displaying near-infrared to visible upconversion. Dalton Transactions, 2015, 44, 2529-2540.	3.3	49
41	Decorated carbon nanotubes with unique oxygen sensitivity. Nature Chemistry, 2009, 1, 500-506.	13.6	48
42	Fluorescence Detection of Surface-Bound Intermediates Produced from UV Photoreactivity of Alkylsiloxane SAMs. Journal of the American Chemical Society, 2004, 126, 2260-2261.	13.7	47
43	Oneâ€Step Assembly of Visible and Nearâ€Infrared Emitting Metallacrown Dimers Using a Bifunctional Linker. Chemistry - A European Journal, 2018, 24, 1031-1035.	3.3	47
44	Simultaneous drug release at different rates from biodegradable polyurethane foams. Acta Biomaterialia, 2009, 5, 2398-2408.	8.3	46
45	Hypoxia-Regulated Overexpression of Soluble VEGFR2 Controls Angiogenesis and Inhibits Tumor Growth. Molecular Cancer Therapeutics, 2014, 13, 165-178.	4.1	44
46	Near-infrared luminescent metallacrowns for combined in vitro cell fixation and counter staining. Chemical Science, 2017, 8, 6042-6050.	7.4	42
47	The first structurally characterized and strongly luminescent self-assembled helical heterodinuclear dâ€“f complex. Journal of the Chemical Society Chemical Communications, 1995, , 2575-2577.	2.0	40
48	A Tripodal Rutheniumâ€“Gadolinium Metallostar as a Potential Î±vÎ²3Integrin Specific Bimodal Imaging Contrast Agent. Inorganic Chemistry, 2012, 51, 6405-6411.	4.0	38
49	LDIâ€“glycerol polyurethane implants exhibit controlled release of DB-67 and anti-tumor activity in vitro against malignant gliomas. Acta Biomaterialia, 2008, 4, 852-862.	8.3	33
50	Catalyst-dependent drug loading of LDIâ€“glycerol polyurethane foams leads to differing controlled release profiles. Acta Biomaterialia, 2008, 4, 1263-1274.	8.3	33
51	Prototypes of Lanthanide(III) Agents Responsive to Enzymatic Activities in Three Complementary Imaging Modalities: Visible/Near-Infrared Luminescence, PARACEST-, and T₁-MRI. Journal of the American Chemical Society, 2016, 138, 2913-2916.	13.7	33
52	Hydrophobic chromophore cargo in micellar structures: a different strategy to sensitize lanthanide cations. Chemical Communications, 2010, 46, 124-126.	4.1	32
53	H/D Isotope Effects in Protein Thermal Denaturation: The Case of Bovine Serum Albumin. Journal of Physical Chemistry B, 2011, 115, 1881-1888.	2.6	32
54	Preferential accumulation within tumors and inÂvivo imaging by functionalized luminescent dendrimer lanthanide complexes. Biomaterials, 2011, 32, 9343-9352.	11.4	32

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55	Synthesis and Structural Properties of Lanthanide Complexes Formed with Tropolonate Ligands. Inorganic Chemistry, 2007, 46, 6473-6482.	4.0	31
56	Luminescence targeting and imaging using a nanoscale generation 3 dendrimer in an in vivo colorectal metastatic rat model. Nanomedicine: Nanotechnology, Biology, and Medicine, 2011, 7, 249-258.	3.3	29
57	Perfluorinated Aromatic Spacers for Sensitizing Europium(III) Centers in Dinuclear Oligomers: Better than the Best by Chemical Design?. Angewandte Chemie - International Edition, 2012, 51, 11302-11305.	13.8	29
58	A Bis(pyridine Nâ€oxide) Analogue of DOTA: Relaxometric Properties of the Gd^{III} Complex and Efficient Sensitization of Visible and NIRâ€Emitting Lanthanide(III) Cations Including Pr^{III} and Ho^{III}. Chemistry - A European Journal, 2014, 20, 14834-14845.	3.3	29
59	Dy³⁺ White Light Emission Can Be Finely Controlled by Tuning the First Coordination Sphere of Ga³⁺/Dy³⁺ Metallacrown Complexes. Journal of the American Chemical Society, 2020, 142, 16173-16176.	13.7	29
60	New tris-3,4-HOPO lanthanide complexes as potential imaging probes: complex stability and magnetic properties. Dalton Transactions, 2013, 42, 6046.	3.3	28
61	Lanthanide(III) Complexes of Diethylenetriaminepentaacetic Acid (DTPA)â€“Bisamide Derivatives as Potential Agents for Bimodal (Optical/Magnetic Resonance) Imaging. European Journal of Inorganic Chemistry, 2013, 2013, 2629-2639.	2.0	28
62	Design of lanthanide-based metalâ€“organic frameworks with enhanced near-infrared emission. Journal of Materials Chemistry A, 2020, 8, 10188-10192.	10.3	28
63	Lanthanide hexafluoroacetylacetonates vs. nitrates for the controlled loading of luminescent polynuclear single-stranded oligomers. Chemical Science, 2013, 4, 1125.	7.4	27
64	Mechanistic Studies of Gd³⁺â€Based MRI Contrast Agents for Zn²⁺ Detection: Towards Rational Design. Chemistry - A European Journal, 2014, 20, 10959-10969.	3.3	27
65	Lanthanideâ€toâ€Lanthanide Energyâ€Transfer Processes Operating in Discrete Polynuclear Complexes: Can Trivalent Europium Be Used as a Local Structural Probe?. Chemistry - A European Journal, 2014, 20, 12172-12182.	3.3	27
66	Endothelial precursor cell-based therapy to target the pathologic angiogenesis and compensate tumor hypoxia. Cancer Letters, 2016, 370, 345-357.	7.2	27
67	Cooperative loading of multisite receptors with lanthanide containers: an approach for organized luminescent metallopolymers. Chemical Science, 2018, 9, 325-335.	7.4	27
68	Luminescent Zinc Fingers: Znâ€Responsive Neodymium Nearâ€Infrared Emission in Water. Chemistry - A European Journal, 2017, 23, 10992-10996.	3.3	25
69	Lanthanide-based near-infrared emitting metalâ€“organic frameworks with tunable excitation wavelengths and high quantum yields. Chemical Communications, 2018, 54, 6816-6819.	4.1	25
70	Thermodynamic Programming of Erbium(III) Coordination Complexes for Dual Visible/Nearâ€Infrared Luminescence. Chemistry - A European Journal, 2018, 24, 13158-13169.	3.3	25
71	Transparent polycrystalline SrREGa₃O₇ melilite ceramics: potential phosphors for tuneable solid state lighting. Journal of Materials Chemistry C, 2016, 4, 3238-3247.	5.5	24
72	Functionalized Triptycene-Derived Tripodal Ligands: Privileged Formation of Tetranuclear Cage Assemblies with Larger Ln(III). Inorganic Chemistry, 2017, 56, 2742-2749.	4.0	23

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73	A Unique Ln III {[3.3.1]Ga III Metallacryptate} Series That Possesses Properties of Slow Magnetic Relaxation and Visible/Nearâ€Infrared Luminescence. Chemistry - A European Journal, 2018, 24, 10773-10783.	3.3	22
74	An original class of small sized molecules as versatile fluorescent probes for cellular imaging. Chemical Communications, 2019, 55, 7776-7779.	4.1	19
75	A Novel Salicylate-Based Macrobicycle with a â€œSplit Personalityâ€. Inorganic Chemistry, 1999, 38, 4522-4529.	4.0	18
76	Enzyme-Catalyzed Oxidation Facilitates the Return of Fluorescence for Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2013, 135, 13356-13364.	13.7	18
77	Taking a last look at lanthanidomesogens? The use of basic thermodynamics for programming the temperature domains of existence of luminescent liquid crystals. Coordination Chemistry Reviews, 2017, 340, 79-97.	18.8	18
78	Iodinated Metallacrowns: Toward Combined Bimodal Nearâ€Infrared and Xâ€Ray Contrast Imaging Agents. Chemistry - A European Journal, 2020, 26, 1274-1277.	3.3	18
79	Synthesis and Solidâ€State, Solution, and Luminescence Properties of Nearâ€Infraredâ€Emitting Neodymium(3+) Complexes Formed with Ligands Derived from Salophen. Helvetica Chimica Acta, 2009, 92, 2313-2329.	1.6	17
80	Luminescent Properties of the Hexakis(Nitrito)Europate(Iii) Ion [Eu(No2)6]3â^'. Spectroscopy Letters, 1999, 32, 155-163.	1.0	16
81	Incorporation of ionic ligands accelerates drug release from LDIâ€“glycerol polyurethanes. Acta Biomaterialia, 2010, 6, 144-153.	8.3	16
82	New Calciumâ€Selective Smart Contrast Agents for Magnetic Resonance Imaging. Chemistry - A European Journal, 2013, 19, 18011-18026.	3.3	16
83	Visible, Near-Infrared, and Dual-Range Luminescence Spanning the 4f Series Sensitized by a Gallium(III)/Lanthanide(III) Metallacrown Structure. Journal of Physical Chemistry A, 2020, 124, 10550-10564.	2.5	16
84	Near-infrared emitting lanthanide(<scp>iii</scp>) complexes as prototypes of optical imaging agents with peptide targeting ability: a methodological approach. RSC Advances, 2019, 9, 1747-1751.	3.6	15
85	Ln[DO3A-N-Î±-(pyrenebutanamido)propionate] complexes: optimized relaxivity and NIR optical properties. Dalton Transactions, 2014, 43, 3162-3173.	3.3	14
86	Unravelling the mechanism of water sensing by the Mg²⁺ dihydroxy-terephthalate MOF (AEMOF-1â€²). Molecular Systems Design and Engineering, 2020, 5, 461-468.	3.4	14
87	A near-infrared emitting MOF: controlled encapsulation of a fluorescein sensitizer at the time of crystal growth. Chemical Communications, 2021, 57, 3351-3354.	4.1	14
88	Towards materials with planned properties: dinuclear f-f helicates and d-f non-covalent podates based on benzimidazole-pyridine binding units. Journal of Alloys and Compounds, 1997, 249, 14-24.	5.5	13
89	Novel Antennae for Luminescent Lanthanide Cations Emitting in the Visible and in the Near-Infrared: From Small Molecules to Polymetallic Lanthanide Containing Nanocrystals. Chimia, 2009, 63, 745-752.	0.6	13
90	Mono- and Terfluorene Oligomers as Versatile Sensitizers for the Luminescent Eu3+ Cation. Inorganic Chemistry, 2009, 48, 6332-6334.	4.0	13

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91	Lanthanide DO3A-Tropone Complexes: Efficient Dual MR/NIR Imaging Probes in Aqueous Medium. European Journal of Inorganic Chemistry, 2017, 2017, 4965-4968.	2.0	12
92	[Ga 3+ 8 Sm 3+ 2 , Ga 3+ 8 Tb 3+ 2] Metallacrowns are Highly Promising Ratiometric Luminescent Molecular Nanothermometers Operating at Physiologically Relevant Temperatures. Chemistry - A European Journal, 2020, 26, 13792-13796.	3.3	12
93	Competition studies in horse spleen ferritin probed by a kinetically inert inhibitor, [Cr(TREN)(H2O)(OH)]2+, and a highly luminescent Tb(III) reagent. Journal of Biological Inorganic Chemistry, 2003, 8, 195-205.	2.6	11
94	Exploring the ability of the nalidixate to sensitize visible and near-infrared emitting lanthanide(III) cations. Methods and Applications in Fluorescence, 2017, 5, 014002.	2.3	11
95	Toward MRI and Optical Detection of Zwitterionic Neurotransmitters: Near-Infrared Luminescent and Magnetic Properties of Macrocyclic Lanthanide(III) Complexes Appended with a Crown Ether and a Benzophenone Chromophore. Inorganic Chemistry, 2019, 58, 13619-13630.	4.0	11
96	Peculiarities of crystal structures and photophysical properties of Ga^{III}/Ln^{III} metallacrowns with a non-planar [12-MC-4] core. Inorganic Chemistry Frontiers, 2020, 7, 1553-1563.	6.0	11
97	Lanthanideâ€Based, Nearâ€Infrared Luminescent and Magnetic Lipoparticles: Monitoring Particle Integrity. Small, 2013, 9, 2662-2666.	10.0	10
98	A role of copper(II) ions in the enhancement of visible and near-infrared lanthanide(III) luminescence. Journal of Luminescence, 2016, 171, 191-197.	3.1	9
99	One Approach for Two: Toward the Creation of Near-Infrared Imaging Agents and Rapid Screening of Lanthanide(III) Ion Sensitizers Using Polystyrene Nanobeads. ACS Applied Bio Materials, 2019, 2, 1667-1675.	4.6	8
100	Doxorubicinâ€Sensitized Luminescence of NIRâ€Emitting Ytterbium Liposomes: Towards Direct Monitoring of Drug Release. Angewandte Chemie - International Edition, 2021, 60, 23574-23577.	13.8	7
101	A Sixâ€Armed Phenhomazine Ligand with a Potential â€œTurnâ€Offâ€•Copper(II) Sensing Capability through Terbium(III) Luminescence Quenching. Chemistry - A European Journal, 2020, 26, 12645-12653.	3.3	6
102	Using Native Chemical Ligation for Siteâ€Specific Synthesis of Heteroâ€bisâ€lanthanide Peptide Conjugates: Application to Ratiometric Visible or Nearâ€Infrared Detection of Zn 2+. Chemistry - A European Journal, 2020, 26, 13476-13483.	3.3	6
103	Nearâ€Infrared Emitting Heterobimetallic Znâ€4f Schiff Base Complexes with Visible Excitation Wavelength. European Journal of Inorganic Chemistry, 2020, 2020, 75-78.	2.0	5
104	Innovative Multipodal Ligands Derived from TrÃ¶ger's Bases for the Sensitization of Lanthanide(III) Luminescence. Chemistry - A European Journal, 2020, 26, 16900-16909.	3.3	5
105	Tuning the photophysical properties of lanthanide(<scp>iii</scp>)/zinc(<scp>ii</scp>) â€˜encapsulated sandwichâ€™ metallacrowns emitting in the near-infrared range. Chemical Science, 2022, 13, 2919-2931.	7.4	4
106	Visible and near-infrared emitting heterotrimetallic lanthanideâ€“aluminumâ€“sodium 12-metallacrown-4 compounds: discrete monomers and dimers. Dalton Transactions, 2022, 51, 5989-5996.	3.3	4
107	Near-Infrared Lanthanide-Based Emission from Fused Bis[Ln(III)/Zn(II) 14-metallacrown-5] Coordination Compounds. Inorganic Chemistry, 2022, 61, 5691-5695.	4.0	3
108	Degradative-release as a function of drug structure from LDI-glycerol polyurethanes. Bio-Medical Materials and Engineering, 2010, 20, 269-281.	0.6	2

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109	Doxorubicinâ€Sensitized Luminescence of NIRâ€Emitting Ytterbium Liposomes: Towards Direct Monitoring of Drug Release. Angewandte Chemie, 2021, 133, 23766.	2.0	1
110	Lanthanide complexes with more intense luminescence: a strategy for the formation of polymetallic lanthanide dendrimer complexes and semiconductor nanocrystal compounds. , 2006, , .		0
111	Graphitic Nanocapsules. Advanced Materials, 2009, 21, 4692-4695.	21.0	0
112	Welcome to â€˜Molecular Probes in Optical and Magnetic Resonance Imagingâ€™. Future Medicinal Chemistry, 2010, 2, 305-306.	2.3	0
113	Near-Infrared Emitting Poly(amidoamine) Dendrimers with an Anthraquinone Core toward Versatile Non-Invasive Biological Imaging. Biomacromolecules, 2022, 23, 1392-1402.	5.4	0