

Gonzalo Cosa

List of Publications by Year in descending order

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114
papers

4,105
citations

101543

36
h-index

133252

59
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118
all docs

118
docs citations

118
times ranked

5140
citing authors

#	ARTICLE	IF	CITATIONS
1	Chemically Tuned, Reversible Fluorogenic Electrophile for Live Cell Nanoscopy. ACS Sensors, 2022, 7, 166-174.	7.8	7
2	Fluorescence-Amplified Detection of Redox Turnovers in Supported Lipid Bilayers Illuminates Redox Processes of α -Tocopherol. ACS Applied Materials & Interfaces, 2022, 14, 13872-13882.	8.0	3
3	An evolutionary conserved detoxification system for membrane lipid-derived peroxy radicals in Gram-negative bacteria. PLoS Biology, 2022, 20, e3001610.	5.6	6
4	Room Temperature Phosphorescence vs Triplet-Triplet Annihilation in N-Substituted Acridone Solids. Journal of Physical Chemistry Letters, 2021, 12, 6431-6438.	4.6	14
5	A dissipative pathway for the structural evolution of DNA fibres. Nature Chemistry, 2021, 13, 843-849.	13.6	60
6	Thermosetting supramolecular polymerization of compartmentalized DNA fibers with stereo sequence and length control. Chem, 2021, 7, 2395-2414.	11.7	16
7	Quantifying Heme-Protein Maturation from Ratiometric Fluorescence Lifetime Measurements on the Single Fluorophore in Its GFP Fusion. Journal of Physical Chemistry A, 2020, 124, 746-754.	2.5	3
8	Connecting the Dots: From Free Radical Lipid Autoxidation to Cell Pathology and Disease. Chemical Reviews, 2020, 120, 12757-12787.	47.7	61
9	Real-Time Single-Cell Imaging Reveals Accelerating Lipid Peroxyl Radical Formation in <i>Escherichia coli</i> Triggered by a Fluoroquinolone Antibiotic. ACS Infectious Diseases, 2020, 6, 2468-2477.	3.8	13
10	Self-Healing Dyes—Keeping the Promise?. Journal of Physical Chemistry Letters, 2020, 11, 4462-4480.	4.6	35
11	Single-molecule methods in structural DNA nanotechnology. Chemical Society Reviews, 2020, 49, 4220-4233.	38.1	31
12	Unifying Mechanism for Thiol-Induced Photoswitching and Photostability of Cyanine Dyes. Journal of the American Chemical Society, 2020, 142, 12681-12689.	13.7	56
13	Hepatitis C Virus Helicase Binding Activity Monitored through Site-Specific Labeling Using an Expanded Genetic Code. ACS Infectious Diseases, 2019, 5, 2118-2126.	3.8	2
14	Advancing Wireframe DNA Nanostructures Using Single-Molecule Fluorescence Microscopy Techniques. Accounts of Chemical Research, 2019, 52, 3199-3210.	15.6	12
15	A High-Throughput Image Correlation Method for Rapid Analysis of Fluorophore Photoblinking and Photobleaching Rates. ACS Nano, 2019, 13, 11955-11966.	14.6	15
16	A dormant BODIPY-acrolein singlet oxygen photosensitizer intracellularly activated upon adduct formation with cysteine residues. Photochemical and Photobiological Sciences, 2019, 18, 2003-2011.	2.9	2
17	Tuning Photoinduced Electron Transfer Efficiency of Fluorogenic BODIPY- α -Tocopherol Analogues. Photochemistry and Photobiology, 2019, 95, 192-201.	2.5	12
18	Effect of antioxidant supplements on lipid peroxidation levels in primary cortical neuron cultures. Free Radical Biology and Medicine, 2019, 130, 471-477.	2.9	10

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19	Spatio-temporal monitoring of lipid peroxy radicals in live cell studies combining fluorogenic antioxidants and fluorescence microscopy methods. <i>Free Radical Biology and Medicine</i> , 2018, 128, 124-136.	2.9	19
20	DNA Nanotubes with Hydrophobic Environments: Toward New Platforms for Guest Encapsulation and Cellular Delivery. <i>Advanced Healthcare Materials</i> , 2018, 7, 1701049.	7.6	21
21	Cigarette smoke activates CFTR through ROS-stimulated cAMP signaling in human bronchial epithelial cells. <i>American Journal of Physiology - Cell Physiology</i> , 2018, 314, C118-C134.	4.6	18
22	Highly Photostable and Fluorescent Microporous Solids Prepared via Solid-State Entrapment of Boron Dipyrromethene Dyes in a Nascent Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2018, 140, 16882-16887.	13.7	56
23	Kinetics of Strand Displacement and Hybridization on Wireframe DNA Nanostructures: Dissecting the Roles of Size, Morphology, and Rigidity. <i>ACS Nano</i> , 2018, 12, 12836-12846.	14.6	13
24	Efficient One-Step PEG-Silane Passivation of Glass Surfaces for Single-Molecule Fluorescence Studies. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 39505-39511.	8.0	40
25	Tris-N-Nitrilotriacetic Acid Fluorophore as a Self-Healing Dye for Single-Molecule Fluorescence Imaging. <i>Journal of the American Chemical Society</i> , 2018, 140, 11006-11012.	13.7	24
26	Photosensitized Membrane Permeabilization Requires Contact-Dependent Reactions between Photosensitizer and Lipids. <i>Journal of the American Chemical Society</i> , 2018, 140, 9606-9615.	13.7	133
27	Conformational Changes Spanning Angstroms to Nanometers via a Combined Protein-Induced Fluorescence Enhancement-Förster Resonance Energy Transfer Method. <i>Journal of Physical Chemistry B</i> , 2017, 121, 2039-2048.	2.6	17
28	Dynamic Interconversions of HCV Helicase Binding Modes on the Nucleic Acid Substrate. <i>ACS Infectious Diseases</i> , 2017, 3, 99-109.	3.8	3
29	meso-Acetoxyethyl BODIPY dyes for photodynamic therapy: improved photostability of singlet oxygen photosensitizers. <i>Photochemical and Photobiological Sciences</i> , 2017, 16, 178-184.	2.9	36
30	Mitochondria Alkylation and Cellular Trafficking Mapped with a Lipophilic BODIPY-Acrolein Fluorogenic Probe. <i>Journal of the American Chemical Society</i> , 2017, 139, 16273-16281.	13.7	59
31	Rate of Lipid Peroxy Radical Production during Cellular Homeostasis Unraveled via Fluorescence Imaging. <i>Journal of the American Chemical Society</i> , 2017, 139, 15801-15811.	13.7	44
32	Redox-Based Photostabilizing Agents in Fluorescence Imaging: The Hidden Role of Intersystem Crossing in Geminate Radical Ion Pairs. <i>Journal of the American Chemical Society</i> , 2017, 139, 13227-13233.	13.7	32
33	Stoichiometry and Dispersity of DNA Nanostructures Using Photobleaching Pair-Correlation Analysis. <i>Bioconjugate Chemistry</i> , 2017, 28, 2340-2349.	3.6	5
34	Development of a Fluorogenic Reactivity Palette for the Study of Nucleophilic Addition Reactions Based on meso-Formyl BODIPY Dyes. <i>ACS Omega</i> , 2017, 2, 8618-8624.	3.5	11
35	Enhancing the photostability of poly(phenylene ethynylene) for single particle studies. <i>Photochemical and Photobiological Sciences</i> , 2017, 16, 1821-1831.	2.9	4
36	Interactions of the Disordered Domain II of Hepatitis C Virus NS5A with Cyclophilin A, NS5B, and Viral RNA Show Extensive Overlap. <i>ACS Infectious Diseases</i> , 2016, 2, 839-851.	3.8	24

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37	Fluorogenic Ubiquinone Analogue for Monitoring Chemical and Biological Redox Processes. <i>Journal of the American Chemical Society</i> , 2016, 138, 11327-11334.	13.7	24
38	Monitoring Chemical and Biological Electron Transfer Reactions with a Fluorogenic Vitamin K Analogue Probe. <i>Journal of the American Chemical Society</i> , 2016, 138, 16388-16397.	13.7	26
39	Improving the Photostability of Red- and Green-Emissive Single-Molecule Fluorophores via Ni ²⁺ Mediated Excited Triplet-State Quenching. <i>Journal of Physical Chemistry B</i> , 2016, 120, 11923-11929.	2.6	29
40	Biomimetic Light-Harvesting Antenna Based on the Self-Assembly of Conjugated Polyelectrolytes Embedded within Lipid Membranes. <i>ACS Nano</i> , 2016, 10, 10598-10605.	14.6	27
41	Counting Single Redox Turnovers: Fluorogenic Antioxidant Conversion and Mass Transport Visualization via Single Molecule Spectroelectrochemistry. <i>Journal of Physical Chemistry C</i> , 2016, 120, 15349-15353.	3.1	17
42	Reactive Oxygen Species Mediated Activation of a Dormant Singlet Oxygen Photosensitizer: From Autocatalytic Singlet Oxygen Amplification to Chemically Controlled Photodynamic Therapy. <i>Journal of the American Chemical Society</i> , 2016, 138, 1215-1225.	13.7	143
43	Heterogeneous Charge Mobility in Individual Conjugated Polyelectrolyte Nanoparticles Revealed by Two-Color Single Particle Spectroelectrochemistry Studies. <i>Journal of Physical Chemistry C</i> , 2015, 119, 12875-12886.	3.1	7
44	Cy3 Photoprotection Mediated by Ni ²⁺ for Extended Single-Molecule Imaging: Old Tricks for New Techniques. <i>Journal of the American Chemical Society</i> , 2015, 137, 1116-1122.	13.7	49
45	Stepwise growth of surface-grafted DNA nanotubes visualized at the single-molecule level. <i>Nature Chemistry</i> , 2015, 7, 295-300.	13.6	51
46	Photo-induced Metal-Catalyst-Free Aromatic Finkelstein Reaction. <i>Journal of the American Chemical Society</i> , 2015, 137, 8328-8331.	13.7	157
47	Charge-Transfer Dynamics of Fluorescent Dye-Sensitized Electrodes under Applied Biases. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2688-2693.	4.6	10
48	Exploiting Conjugated Polyelectrolyte Photophysics toward Monitoring Real-Time Lipid Membrane-Surface Interaction Dynamics at the Single-Particle Level. <i>Langmuir</i> , 2015, 31, 11842-11850.	3.5	7
49	When Push Comes to Shove: Unravelling the Mechanism and Scope of Nonemissive <i>meso</i> -Unsaturated BODIPY Dyes. <i>Journal of Physical Chemistry B</i> , 2015, 119, 4758-4765.	2.6	40
50	Dynamic DNA Nanotubes: Reversible Switching between Single and Double-Stranded Forms, and Effect of Base Deletions. <i>ACS Nano</i> , 2015, 9, 11898-11908.	14.6	43
51	Dynamics of Hepatitis C Virus (HCV) RNA-dependent RNA Polymerase NS5B in Complex with RNA. <i>Journal of Biological Chemistry</i> , 2014, 289, 14399-14411.	3.4	22
52	Ambient condition oxidation in individual liposomes observed at the single molecule level. <i>Chemical Science</i> , 2014, 5, 2525-2529.	7.4	10
53	Dye Lipophilicity and Retention in Lipid Membranes: Implications for Single-Molecule Spectroscopy. <i>Langmuir</i> , 2014, 30, 11138-11146.	3.5	13
54	Interaction of Anionic Phenylene Ethynylene Polymers with Lipids: From Membrane Embedding to Liposome Fusion. <i>Langmuir</i> , 2014, 30, 10704-10711.	3.5	21

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55	Electronic Excited State Redox Properties for BODIPY Dyes Predicted from Hammett Constants: Estimating the Driving Force of Photoinduced Electron Transfer. <i>Journal of Physical Chemistry A</i> , 2014, 118, 10622-10630.	2.5	43
56	Development of Fluorogenic Antioxidants to Monitor Reactive Oxygen Species in the Lipid Membrane of Live Cells. <i>Microscopy and Microanalysis</i> , 2014, 20, 1356-1357.	0.4	0
57	Binding Kinetics and Affinities of Heterodimeric versus Homodimeric HIV-1 Reverse Transcriptase on DNA–DNA Substrates at the Single-Molecule Level. <i>Journal of Physical Chemistry B</i> , 2013, 117, 4560-4567.	2.6	31
58	Spectral Characteristics and Photosensitization of TiO ₂ Nanoparticles in Reverse Micelles by Perylenes. <i>Journal of Physical Chemistry B</i> , 2013, 117, 4568-4581.	2.6	22
59	Simple Design for DNA Nanotubes from a Minimal Set of Unmodified Strands: Rapid, Room-Temperature Assembly and Readily Tunable Structure. <i>ACS Nano</i> , 2013, 7, 3022-3028.	14.6	48
60	Assembling nanoantennas. <i>Nature Chemistry</i> , 2013, 5, 159-160.	13.6	11
61	Besting Vitamin E: Sidechain Substitution is Key to the Reactivity of Naphthyridinol Antioxidants in Lipid Bilayers. <i>Journal of the American Chemical Society</i> , 2013, 135, 1394-1405.	13.7	52
62	Characterisation of organic solid forms and real-time in situ monitoring of their transformations using solid-state fluorescence. <i>CrystEngComm</i> , 2013, 15, 5100.	2.6	28
63	Photoinduced Electron Transfer in Perylene–TiO ₂ Nanoassemblies. <i>Photochemistry and Photobiology</i> , 2013, 89, 1375-1382.	2.5	7
64	Fluorogenic α -Tocopherol Analogue for Monitoring the Antioxidant Status within the Inner Mitochondrial Membrane of Live Cells. <i>Journal of the American Chemical Society</i> , 2013, 135, 17135-17143.	13.7	70
65	How Lipid Unsaturation, Peroxyl Radical Partitioning, and Chromanol Lipophilic Tail Affect the Antioxidant Activity of α -Tocopherol: Direct Visualization via High-Throughput Fluorescence Studies Conducted with Fluorogenic α -Tocopherol Analogues. <i>Journal of the American Chemical Society</i> , 2012, 134, 10102-10113.	13.7	60
66	Site-Specific Fluorescent Labeling and Oriented Immobilization of a Triple Mutant of CYP3A4 via C64. <i>Bioconjugate Chemistry</i> , 2012, 23, 826-836.	3.6	17
67	Enhancing the Emissive Properties of Poly(<i>p</i> -phenylenevinylene)-Conjugated Polyelectrolyte-Coated SiO ₂ Nanoparticles. <i>Journal of the American Chemical Society</i> , 2012, 134, 1648-1652.	13.7	12
68	PROFILE: Early Excellence in Physical Organic Chemistry. <i>Journal of Physical Organic Chemistry</i> , 2012, 25, 732-732.	1.9	1
69	Deposition of anionic conjugated poly(phenylenevinylene) onto silica nanoparticles via electrostatic interactions—Assembly and single-particle spectroscopy. <i>Canadian Journal of Chemistry</i> , 2011, 89, 385-394.	1.1	8
70	Monitoring in Real-Time the Degrafting of Covalently Attached Fluorescent Polymer Brushes Grafted to Silica Substrates—Effects of pH and Salt. <i>Macromolecules</i> , 2011, 44, 8177-8184.	4.8	27
71	Synthesis and characterization of silicon phthalocyanines bearing axial phenoxy groups for attachment to semiconducting metal oxides. <i>Journal of Porphyrins and Phthalocyanines</i> , 2011, 15, 943-950.	0.8	14
72	N-(4-(di- <i>tert</i> -butyl[¹⁸ F]fluorosilyl)benzyl)-2-hydroxy-N,N-dimethylethylammonium bromide ([¹⁸ F]SiFAN+Br ⁻): A novel lead compound for the development of hydrophilic SiFA-based prosthetic groups for ¹⁸ F-labeling. <i>Journal of Fluorine Chemistry</i> , 2011, 132, 27-34.	1.7	34

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73	Loading and selective release of cargo in DNA nanotubes with longitudinal variation. <i>Nature Chemistry</i> , 2010, 2, 319-328.	13.6	297
74	Unraveling electronic energy transfer in single conjugated polyelectrolytes encapsulated in lipid vesicles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 17480-17485.	7.1	38
75	Conjugated polyelectrolyte-lipid interactions: Opportunities in biosensing. <i>Pure and Applied Chemistry</i> , 2010, 83, 43-55.	1.9	20
76	Single Molecule Studies on Hcv RNA Polymerase Activity. <i>Biophysical Journal</i> , 2010, 98, 73a-74a.	0.5	0
77	Bodipy Dyes with Tunable Redox Potentials and Functional Groups for Further Tethering: Preparation, Electrochemical, and Spectroscopic Characterization. <i>Journal of the American Chemical Society</i> , 2010, 132, 17560-17569.	13.7	143
78	Assembly of Zwitterionic Phospholipid/Conjugated Polyelectrolyte Complexes: Structure and Photophysical Properties. <i>Langmuir</i> , 2010, 26, 6746-6754.	3.5	33
79	Novel probes for visualizing reactive oxygen species in lipid membranes. <i>Proceedings of SPIE</i> , 2010, , .	0.8	0
80	Estimation of the solvent reorganization energy and the absolute energy of solvation of charge-transfer states from their emission spectra. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 675-686.	2.9	5
81	Modular construction of DNA nanotubes of tunable geometry and single- or double-stranded character. <i>Nature Nanotechnology</i> , 2009, 4, 349-352.	31.5	122
82	How Drug Photodegradation Studies Led to the Promise of New Therapies and Some Fundamental Carbanion Reaction Dynamics along the Way. <i>Accounts of Chemical Research</i> , 2009, 42, 599-607.	15.6	56
83	Molecular Imaging of Lipid Peroxyl Radicals in Living Cells with a BODIPY-Tocopherol Adduct. <i>Biochemistry</i> , 2009, 48, 5658-5668.	2.5	37
84	Phenol-Based Lipophilic Fluorescent Antioxidant Indicators: A Rational Approach. <i>Journal of Organic Chemistry</i> , 2009, 74, 3641-3651.	3.2	49
85	Reactivity of adrenaline toward alkoxyl radicals and carbonyl triplet states. <i>Organic and Biomolecular Chemistry</i> , 2008, 6, 4609.	2.8	22
86	Liposome Encapsulation of Conjugated Polyelectrolytes: Toward a Liposome Beacon. <i>Journal of the American Chemical Society</i> , 2008, 130, 457-459.	13.7	35
87	Design and Synthesis of a BODIPY-Tocopherol Adduct for Use as an Off/On Fluorescent Antioxidant Indicator. <i>Journal of the American Chemical Society</i> , 2007, 129, 1842-1843.	13.7	81
88	Evidence for Non-Two-State Kinetics in the Nucleocapsid Protein Chaperoned Opening of DNA Hairpins. <i>Journal of Physical Chemistry B</i> , 2006, 110, 2419-2426.	2.6	40
89	Single-Molecule FRET Studies of Important Intermediates in the Nucleocapsid-Protein-Chaperoned Minus-Strand Transfer Step in HIV-1 Reverse Transcription. <i>Biophysical Journal</i> , 2005, 89, 3470-3479.	0.5	68
90	Photodegradation and photosensitization in pharmaceutical products: Assessing drug phototoxicity. <i>Pure and Applied Chemistry</i> , 2004, 76, 263-275.	1.9	77

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91	Photochemistry of Diketones: Observation of a Triplet State ^{••} Oxygen Adduct. Journal of the American Chemical Society, 2004, 126, 8636-8637.	13.7	8
92	Secondary Structure and Secondary Structure Dynamics of DNA Hairpins Complexed with HIV-1 NC Protein. Biophysical Journal, 2004, 87, 2759-2767.	0.5	68
93	Comparative Study of the Reactivities of Substituted 3-(Benzoyl)benzyl Carbanions in Water and in DMSO. Journal of Organic Chemistry, 2004, 69, 7066-7071.	3.2	12
94	Laser Techniques in the Study of Drug Photochemistry ^{••} . Photochemistry and Photobiology, 2004, 80, 159.	2.5	36
95	Laser Techniques in the Study of Drug Photochemistry ^{<sup>••</sup>} . Photochemistry and Photobiology, 2004, 80, 159-174.	2.5	4
96	Laser techniques in the study of drug photochemistry. Photochemistry and Photobiology, 2004, 80, 159-74.	2.5	9
97	Increasing the Life Expectancy of Carbanions by Zeolite Inclusion.. ChemInform, 2003, 34, no-no.	0.0	0
98	A Laser Flash Photolysis Study of Fenofibric Acid in Aqueous Buffered Media: Unexpected Triplet State Inversion in a Derivative of 4-Alkoxybenzophenone ^{••} . Photochemistry and Photobiology, 2002, 75, 193.	2.5	11
99	Absolute Rate Constants for Water Protonation of 1-(3-Benzoylphenyl)alkyl Carbanions. Organic Letters, 2002, 4, 3083-3085.	4.6	19
100	Photocatalytic Activity of a Multicomponent System Assembled within Zeolites: Case of 2,4,6-Triphenylpyrylium or Ruthenium Tris(bipyridyl) Photosensitizers and Titanium Dioxide Relays within Zeolite Y. Journal of Physical Chemistry B, 2002, 106, 2460-2467.	2.6	38
101	DNA Damage Detection Technique Applying Time-Resolved Fluorescence Measurements. Analytical Chemistry, 2002, 74, 6163-6169.	6.5	31
102	First Determination of Absolute Rate Constants for the Reaction of Aroyl-Substituted Benzyl Carbanions in Water and DMSO. Journal of the American Chemical Society, 2002, 124, 15308-15312.	13.7	17
103	Inversion of 4-methoxybenzophenone triplet in aqueous solutions. Photochemical and Photobiological Sciences, 2002, 1, 704-708.	2.9	34
104	Tuning the photocatalytic activity of titanium dioxide by encapsulation inside zeolites exemplified by the cases of thianthrene photooxygenation and horseradish peroxidase photodeactivation. New Journal of Chemistry, 2002, 26, 1448-1455.	2.8	40
105	Increasing the life expectancy of carbanions by zeolite inclusion. Chemical Communications, 2002, , 2154-2155.	4.1	15
106	A Laser Flash Photolysis Study of Fenofibric Acid in Aqueous Buffered Media: Unexpected Triplet State Inversion in a Derivative of 4-Alkoxybenzophenone ^{••} . Photochemistry and Photobiology, 2002, 75, 193-200.	2.5	1
107	Intrazeolite Photochemistry. 26. Photophysical Properties of Nanosized TiO ₂ Clusters Included in Zeolites Y, β , and Mordenite. Chemistry of Materials, 2001, 13, 715-722.	6.7	45
108	Photophysical Properties of Fluorescent DNA-dyes Bound to Single- and Double-stranded DNA in Aqueous Buffered Solution ^{••} . Photochemistry and Photobiology, 2001, 73, 585.	2.5	310

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109	Photophysical Properties of Fluorescent DNA-dyes Bound to Single- and Double-stranded DNA in Aqueous Buffered Solution. <i>Photochemistry and Photobiology</i> , 2001, 73, 585-599.	2.5	23
110	Direct determination of single-to-double stranded DNA ratio in solution applying time-resolved fluorescence measurements of dye-DNA complexes. <i>Chemical Communications</i> , 2000, , 689-690.	4.1	28
111	pH Effect on the efficiency of the photodeactivation pathways of naphazoline: a combined steady state and time resolved study. <i>New Journal of Chemistry</i> , 2000, 24, 159-163.	2.8	14
112	Influence of solvent polarity and base concentration on the photochemistry of ketoprofen: independent singlet and triplet pathways. <i>Physical Chemistry Chemical Physics</i> , 1999, 1, 3533-3537.	2.8	88
113	Estimation of the Bimolecular Rate Constant for Exciplex Formation from the Analysis of Its Emission Spectrum. <i>Journal of Physical Chemistry A</i> , 1997, 101, 4922-4928.	2.5	12
114	Fluorogenic probes for imaging reactive oxygen species. <i>Photochemistry</i> , 0, , 279-301.	0.2	19