

Keiichi Imato

List of Publications by Year in descending order

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41
papers

1,939
citations

394286

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docs citations

44
times ranked

1793
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-Healing of Chemical Gels Cross-Linked by Diarylbibenzofuranone-Based Trigger-Free Dynamic Covalent Bonds at Room Temperature. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 1138-1142.	7.2	431
2	Mechanophores with a Reversible Radical System and Freezing-Induced Mechanochemistry in Polymer Solutions and Gels. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 6168-6172.	7.2	202
3	Mechanochromic Dynamic Covalent Elastomers: Quantitative Stress Evaluation and Autonomous Recovery. <i>ACS Macro Letters</i> , 2015, 4, 1307-1311.	2.3	142
4	Self-Healing of a Cross-Linked Polymer with Dynamic Covalent Linkages at Mild Temperature and Evaluation at Macroscopic and Molecular Levels. <i>Macromolecules</i> , 2015, 48, 5632-5639.	2.2	125
5	Enhancing Mechanochemical Activation in the Bulk State by Designing Polymer Architectures. <i>ACS Macro Letters</i> , 2016, 5, 1124-1127.	2.3	92
6	Network Reorganization of Dynamic Covalent Polymer Gels with Exchangeable Diarylbibenzofuranone at Ambient Temperature. <i>Journal of the American Chemical Society</i> , 2014, 136, 11839-11845.	6.6	90
7	Polymer-Inorganic Composites with Dynamic Covalent Mechanochromophore. <i>Macromolecules</i> , 2016, 49, 5903-5911.	2.2	86
8	Repeatable mechanochemical activation of dynamic covalent bonds in thermoplastic elastomers. <i>Chemical Communications</i> , 2016, 52, 10482-10485.	2.2	76
9	Dynamic covalent diarylbibenzofuranone-modified nanocellulose: mechanochromic behaviour and application in self-healing polymer composites. <i>Polymer Chemistry</i> , 2017, 8, 2115-2122.	1.9	75
10	The photoregulation of a mechanochemical polymer scission. <i>Nature Communications</i> , 2018, 9, 3504.	5.8	59
11	Reorganizable and stimuli-responsive polymers based on dynamic carbon-carbon linkages in diarylbibenzofuranones. <i>Polymer</i> , 2018, 137, 395-413.	1.8	43
12	Insertion Metathesis Depolymerization of Aromatic Disulfide-containing Dynamic Covalent Polymers under Weak Intensity Photoirradiation. <i>Chemistry Letters</i> , 2013, 42, 1346-1348.	0.7	34
13	Metathesis-driven scrambling reactions between polybutadiene or naturally occurring polyisoprene and olefin-containing polyurethane. <i>Polymer</i> , 2015, 78, 145-153.	1.8	34
14	Fluorescent supramolecular mechanophores based on charge-transfer interactions. <i>Chemical Communications</i> , 2020, 56, 7937-7940.	2.2	32
15	Phenazine-based photosensitizers for singlet oxygen generation. <i>Materials Chemistry Frontiers</i> , 2020, 4, 589-596.	3.2	27
16	Development of an intramolecular charge transfer-type colorimetric and fluorescence sensor for water by fusion with a juloidine structure and complexation with boron trifluoride. <i>RSC Advances</i> , 2019, 9, 31466-31473.	1.7	24
17	Development of fluorescent sensors based on a combination of PET (photo-induced electron transfer) and FRET (Förster resonance energy transfer) for detection of water. <i>Materials Advances</i> , 2020, 1, 354-362.	2.6	22
18	Fluorescence sensors for detection of water based on tetraphenylethene-anthracene possessing both solvatochromic properties and aggregation-induced emission (AIE) characteristics. <i>New Journal of Chemistry</i> , 2021, 45, 4164-4173.	1.4	21

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19	Reversibly Crosslinked Polymeric Micelles Formed by Autonomously Exchangeable Dynamic Covalent Bonds. <i>Chemistry Letters</i> , 2013, 42, 377-379.	0.7	18
20	Self-healing polyurethane elastomers based on charge-transfer interactions for biomedical applications. <i>Polymer Journal</i> , 2021, 53, 355-362.	1.3	17
21	Synthesis, optical and electrochemical properties of propeller-type 3,5,8-trithienyl-BODIPY dyes. <i>Materials Chemistry Frontiers</i> , 2020, 4, 2762-2771.	3.2	16
22	Cell adhesion control by photoinduced LCST shift of PNIPAAm-based brush scaffolds. <i>Journal of Materials Chemistry B</i> , 2020, 8, 2393-2399.	2.9	16
23	Fluorescent sensor for water based on photo-induced electron transfer and Förster resonance energy transfer: anthracene-(aminomethyl)phenylboronic acid ester-BODIPY structure. <i>RSC Advances</i> , 2019, 9, 15335-15340.	1.7	15
24	Development of optical sensor for water in acetonitrile based on propeller-structured BODIPY-type pyridine-boron trifluoride complex. <i>RSC Advances</i> , 2020, 10, 33836-33843.	1.7	12
25	Polymer films doped with fluorescent sensor for moisture and water droplet based on photo-induced electron transfer. <i>RSC Advances</i> , 2021, 11, 17046-17050.	1.7	12
26	Synthesis, photophysical and electrochemical properties of pyridine, pyrazine and triazine-based (Dâ€¢â€¢) fluorescent dyes. <i>Beilstein Journal of Organic Chemistry</i> , 2019, 15, 1712-1721.	1.3	10
27	Diarylbibenzofuranone-Based Dynamic Covalent Polymer Gels Prepared via Radical Polymerization and Subsequent Polymer Reaction. <i>Gels</i> , 2015, 1, 58-68.	2.1	9
28	Photoregulation of Retro-Diels-Alder Reaction at the Center of Polymer Chains. <i>Chemistry Letters</i> , 2017, 46, 992-994.	0.7	9
29	Photoresponsive fiber scaffolds with a core-sheath nanostructure for regulating cell behaviors. <i>Journal of Materials Chemistry B</i> , 2018, 6, 2052-2056.	2.9	9
30	Autonomously Substitutable Organosilane Thin Films Based on Dynamic Covalent Diarylbibenzofuranone Units. <i>Chemistry Letters</i> , 2016, 45, 36-38.	0.7	8
31	Development of phenazine-2,3-diol-based photosensitizers: effect of formyl groups on singlet oxygen generation. <i>Materials Chemistry Frontiers</i> , 2021, 5, 5298-5304.	3.2	8
32	Development of highly sensitive fluorescent sensor and fluorescent sensor-doped polymer films for trace amounts of water based on photo-induced electron transfer. <i>Materials Advances</i> , 2021, 2, 7662-7670.	2.6	8
33	Tetraphenylethene-anthracene-based fluorescence emission sensor for the detection of water with photo-induced electron transfer and aggregation-induced emission characteristics. <i>New Journal of Chemistry</i> , 2022, 46, 12474-12481.	1.4	7
34	Plasticizer-Promoted Thermal Crosslinking of a Dynamic Covalent Polymer with Complementarily Reactive Alkoxyamine Units in the Side Chain under Bulk Conditions. <i>Bulletin of the Chemical Society of Japan</i> , 2014, 87, 1023-1025.	2.0	6
35	Diversification of Conjugated Polymers via Postpolymerization Nucleophilic Aromatic Substitution Reactions with Sulfur-, Oxygen-, and Nitrogen-Based Nucleophiles. <i>Macromolecules</i> , 2021, 54, 725-735.	2.2	6
36	Synthesis, optical and electrochemical properties of 4,4-benzo[<i>c</i>]thiophene derivatives. <i>RSC Advances</i> , 2021, 11, 18870-18880.	1.7	6

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37	Mechanofluorochromism of (Dâ€“â€“)A-type azine-based fluorescent dyes. RSC Advances, 2022, 12, 13797-13809.	1.7	5
38	Synthesis, photophysical and electrochemical properties of 1,1â€“2,3,3â€“2-tetrasubstituted-4,4â€“2-bibenzo[<i>c</i>]thiophene derivatives with different substituents on the thiophene rings. New Journal of Chemistry, 2021, 45, 13258-13261.	1.4	2
39	Development of 4,4â€“2-bibenzo[<i>c</i>]thiophene fluorophores with substituents on the thiophene rings. New Journal of Chemistry, 2021, 45, 17085-17094.	1.4	2
40	Synthesis and Self-healing Property of Crosslinked Polymers with Autonomously Exchangeable Dynamic Covalent Bonds. Journal of the Adhesion Society of Japan, 2012, 48, 156-162.	0.0	0
41	Synthesis, Optical and Electrochemical Properties of Benzo[<i>furo</i> [2,3- <i>c</i>]carbazoloquinol Fluorescent Dyes. Electrochemistry, 2021, 89, 562-566.	0.6	0