Rhett C Smith

List of Publications by Year
in descending order

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86 papers	2,642 citations	201674 27 h-index	214800 47 g-index
88 all docs	88 docs citations	88 times ranked	2165 citing authors

#	Article	IF	Citations
1	Advances and approaches for chemical recycling of plastic waste. Journal of Polymer Science, 2020, 58, 1347-1364.	3.8	408
2	Conjugated Polymers Featuring Heavier Main Group Element Multiple Bonds:Â A Diphosphene-PPV. Journal of the American Chemical Society, 2004, 126, 2268-2269.	13.7	210
3	A Fluorescent (E)-Poly(p-phenylenephosphaalkene) Prepared by a Phospha-Wittig Reaction. Inorganic Chemistry, 2003, 42, 5468-5470.	4.0	109
4	Conjugated Polymer-Based Fluorescence Turn-On Sensor for Nitric Oxide. Organic Letters, 2005, 7, 3573-3575.	4.6	106
5	Recent advances in starchâ€based films toward food packaging applications: Physicochemical, mechanical, and functional properties. Comprehensive Reviews in Food Science and Food Safety, 2020, 19, 3031-3083.	11.7	99
6	Valorisation of waste to yield recyclable composites of elemental sulfur and lignin. Journal of Materials Chemistry A, 2019, 7, 15683-15690.	10.3	80
7	â€œTurn-onâ€•fluorescent sensor for the selective detection of zinc ion by a sterically-encumbered bipyridyl-based receptor. Chemical Communications, 2007, , 4641.	4.1	64
8	Valorization of Lignin as a Sustainable Component of Structural Materials and Composites: Advances from 2011 to 2019. Sustainability, 2020, 12, 734.	3.2	59
9	Combining agriculture and energy industry waste products to yield recyclable, thermally healable copolymers of elemental sulfur and oleic acid. Journal of Polymer Science Part A, 2019, 57, 1704-1710.	2.3	51
10	Photoluminescence and ion sensing properties of a bipyridyl chromophore-modified semifluorinated polymer and its metallopolymer derivatives. Journal of Materials Chemistry, 2008, 18, 1970.	6.7	50
11	Conjugated Metallopolymers for Fluorescent Turn-On Detection of Nitric Oxide. Inorganic Chemistry, 2006, 45, 9367-9373.	4.0	42
12	Durable Celluloseâ€“Sulfur Composites Derived from Agricultural and Petrochemical Waste. Advanced Sustainable Systems, 2019, 3, 1900062.	5.3	42
13	A Trans-Spanning Diphosphine Ligand Based on a m-Terphenyl Scaffold and Its Palladium and Nickel Complexes. Organometallics, 2004, 23, 4215-4222.	2.3	41
14	Dizinc Enzyme Model/Complexometric Indicator Pairs in Indicator Displacement Assays for Inorganic Phosphates under Physiological Conditions. Inorganic Chemistry, 2007, 46, 9262-9266.	4.0	40
15	Copolymers by Inverse Vulcanization of Sulfur with Pure or Technicalâ€Grade Unsaturated Fatty Acids. Journal of Polymer Science, 2020, 58, 438-445.	3.8	40
16	Facile new approach to high sulfur-content materials and preparation of sulfurâ€“lignin copolymers. Journal of Materials Chemistry A, 2020, 8, 548-553.	10.3	37
17	Syntheses and Structural Characterizations of the Unsymmetrical Diphosphene DmpPPMes* (Dmp =) Tj ETQq1 1 0.784314 rgBT /Ove 2002, 41, 5296-5299.	4.0	36
18	Thermally-healable network solids of sulfur-crosslinked poly(4-allyloxystyrene). RSC Advances, 2018, 8, 39074-39082.	3.6	36

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19	High strength, <scp>acidâ€resistant</scp> composites from canola, sunflower, or linseed oils: Influence of triglyceride unsaturation on material properties. Journal of Polymer Science, 2020, 58, 2259-2266.	3.8	36
20	An Unusual Equilibrium Chlorine Atom Transfer Process and Its Potential for Assessment of Steric Pressure by Bulky Aryls. Journal of the American Chemical Society, 2003, 125, 40-41.	13.7	35
21	Durable, acid-resistant copolymers from industrial by-product sulfur and microbially-produced tyrosine. RSC Advances, 2019, 9, 31460-31465.	3.6	35
22	Modular Approach to Chromophore Encapsulation in Fluorinated Arylene Vinylene Ether Polymers Possessing Tunable Photoluminescence. Macromolecules, 2008, 41, 7490-7496.	4.8	33
23	Photochemically-induced dioxygenase-type CO-release reactivity of group 12 metal flavonolate complexes. Chemical Communications, 2011, 47, 10431.	4.1	32
24	Highly Luminescent Heavier Main Group Analogues of Boron-Dipyrromethene. Journal of the American Chemical Society, 2019, 141, 8703-8707.	13.7	30
25	Recyclable, sustainable, and stronger than portland cement: a composite from unseparated biomass and fossil fuel waste. Materials Advances, 2020, 1, 590-594.	5.4	30
26	Polymer-Bound Dirhodium Tetracarboxylate Films for Fluorescent Detection of Nitric Oxide. Inorganic Chemistry, 2006, 45, 6222-6226.	4.0	29
27	Polymer cements by copolymerization of waste sulfur, oleic acid, and pozzolan cements. Sustainable Chemistry and Pharmacy, 2020, 16, 100249.	3.3	28
28	Copolymerization of an aryl halide and elemental sulfur as a route to high sulfur content materials. Polymer Chemistry, 2020, 11, 1621-1628.	3.9	28
29	Lithium-Sulfur Batteries: Advances and Trends. Electrochem, 2020, 1, 226-259.	3.3	27
30	Arsa-Wittig Complexes (ArAsPMe3) as Intermediates to Diarsenes. Organometallics, 2004, 23, 5124-5126.	2.3	26
31	Green Synthesis of Thermoplastic Composites from a Terpenoid-Cellulose Ester. ACS Applied Polymer Materials, 2020, 2, 3761-3765.	4.4	26
32	Visible Chromophore Phosphines as Functional Elements of Luminescent Metallopolymers. Inorganic Chemistry, 2009, 48, 11483-11485.	4.0	25
33	Luminescent phosphonium polyelectrolyte prepared from a diphosphine chromophore: synthesis, photophysics, and layer-by-layer assembly. Journal of Materials Chemistry, 2010, 20, 7984.	6.7	25
34	A role for terpenoid cyclization in the atom economical polymerization of terpenoids with sulfur to yield durable composites. Materials Advances, 2020, 1, 1665-1674.	5.4	24
35	Photoinitiated Dioxygenaseâ€Type Reactivity of Openâ€Shell 3d Divalent Metal Flavonolato Complexes. European Journal of Inorganic Chemistry, 2012, 2012, 4750-4757.	2.0	23
36	Robust, remeltable and remarkably simple to prepare biomassâ€“sulfur composites. Materials Advances, 2020, 1, 2271-2278.	5.4	23

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37	Chromophore-derivatized semifluorinated polymers for colorimetric and turn-on fluorescent anion detection. Sensors and Actuators B: Chemical, 2009, 143, 1-5.	7.8	22
38	Photochemical Reactivity of Ru^{II}(Î·⁶-p-cymene) Flavonolato Compounds. Organometallics, 2014, 33, 6341-6351.	2.3	21
39	Covalently Scaffolded Interâ€Ïâ€system Orientations in Ïâ€Conjugated Polymers and Small Molecule Models. Macromolecular Rapid Communications, 2009, 30, 2067-2078.	3.9	20
40	Interchromophore orientation scaffolding by m-terphenyl oxacyclophanes. Chemical Communications, 2010, 46, 5136.	4.1	20
41	Sterically Encumbered Bipyridyl-Derivatized Conjugated Polymers and Metallopolymers Incorporating Phenylenevinylene, Phenyleneethynylene, and Fluorenylene Segments. Macromolecules, 2012, 45, 6344-6352.	4.8	20
42	Comparison of 1,4-distyrylfluorene and 1,4-distyrylbenzene analogues: synthesis, structure, electrochemistry and photophysics. Organic and Biomolecular Chemistry, 2013, 11, 5425.	2.8	20
43	Inverse vulcanization of octenyl succinate-modified corn starch as a route to biopolymerâ€“sulfur composites. Materials Advances, 2021, 2, 2391-2397.	5.4	20
44	Metal ion detection by luminescent 1,3-bis(dimethylaminomethyl) phenyl receptor-modified chromophores and cruciforms. Organic and Biomolecular Chemistry, 2010, 8, 5620.	2.8	19
45	Dizinc Phosphohydrolase Model Built on a mâ€Terphenyl Scaffold and Its Use in Indicator Displacement Assays for Pyrophosphate Under Physiological Conditions. European Journal of Organic Chemistry, 2009, 2009, 343-348.	2.4	18
46	Poly(pâ€phenylene ethynylene) Incorporating Sterically Enshrouding mâ€Terphenyl Oxacyclophane Canopies. Macromolecular Rapid Communications, 2009, 30, 1399-1405.	3.9	18
47	Bifunctional cross-conjugated luminescent phosphines and phosphine derivatives: phospha-cruciforms. Dalton Transactions, 2010, 39, 5145.	3.3	18
48	Conjugated polymers for the fluorescent detection of nitroaromatics: Influence of sideâ€chain sterics and Ïâ€system electronics. Journal of Polymer Science Part A, 2014, 52, 1487-1492.	2.3	18
49	Tetraarylphosphonium polyelectrolyte chromophores: synthesis, stability, photophysics, film morphology and critical surface energy. Polymer Chemistry, 2015, 6, 900-908.	3.9	18
50	Convenient route to tetraarylphosphonium polyelectrolytes via metal-catalysed Pâ€“C coupling polymerisation of aryl dihalides and diphenylphosphine. Chemical Communications, 2017, 53, 252-254.	4.1	18
51	Facile route to an organosulfur composite from biomass-derived guaiacol and waste sulfur. Journal of Materials Chemistry A, 2020, 8, 20318-20322.	10.3	18
52	Sulfur-Containing Polymers Prepared from Fatty Acid-Derived Monomers: Application of Atom-Economical Thiol-ene/Thiol-yne Click Reactions and Inverse Vulcanization Strategies. Sustainable Chemistry, 2020, 1, 209-237.	4.7	18
53	Gilch and Hornerâ^'Wittig Routes to Poly(p-phenylenevinylene) Derivatives Incorporating Monoalkyl Defect-Free 9,9-Dialkyl-1,4-fluorenylene Units. Macromolecules, 2010, 43, 3744-3749.	4.8	17
54	High strength composites from low-value animal coproducts and industrial waste sulfur. RSC Advances, 2022, 12, 1535-1542.	3.6	17

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55	Solution and film photoluminescence of mesityl-substituted PPVs and low molecular weight models. Journal of Materials Chemistry, 2006, 16, 2445.	6.7	16
56	Synthesis, characterization, and photoinduced CO-release reactivity of a Pb(II) flavonolate complex: Comparisons to Group 12 analogs. Inorganica Chimica Acta, 2013, 407, 91-97.	2.4	16
57	Bipyridyl-modified phosphonium polyelectrolytes: synthesis, photophysics, metal ion coordination and layer-by-layer assembly with anionic conjugated polymers. Polymer Chemistry, 2013, 4, 5387.	3.9	14
58	Convenient synthetic route to tetraarylphosphonium polyelectrolytes via palladiumâ€catalyzed Pâ€“C coupling of aryl triflates and diphenylphosphine. Journal of Polymer Science Part A, 2017, 55, 1984-1990.	2.3	13
59	Sequential crosslinking for mechanical property development in high sulfur content composites. Journal of Polymer Science, 2020, 58, 2943-2950.	3.8	13
60	Influence of Component Ratio on Thermal and Mechanical Properties of Terpenoid-Sulfur Composites. Journal of Composites Science, 2021, 5, 257.	3.0	13
61	Synthesis and photoluminescent properties of a series of pnictogen-centered chromophores. Inorganica Chimica Acta, 2004, 357, 4139-4143.	2.4	12
62	Steric Coordination Control of Interchain Interactions in Conducting Metallopolymers. Macromolecular Rapid Communications, 2009, 30, 2079-2083.	3.9	12
63	Copolymerization of a Bisphenol a Derivative and Elemental Sulfur by the RASP Process. Sustainable Chemistry, 2020, 1, 183-197.	4.7	12
64	Investigating the suitability of poly tetraarylphosphonium based anion exchange membranes for electrochemical applications. Scientific Reports, 2021, 11, 13841.	3.3	11
65	Synthesis and luminescence properties of a series of tris(4-styrylphenyl)phosphorus-(iii) and -(v) compounds and of a [Cu(PR3)4]BF4 complexElectronic supplementary information (ESI) available: 1H, 13C and 31P NMR spectra. See http://www.rsc.org/suppdata/dt/b3/b309735h/. Dalton Transactions, 2003, , 4738.	3.3	10
66	Polyglycerol-bound phosphotriesterase enzyme model complexes for detection and hydrolysis of phosphorus species in aqueous solution. Tetrahedron, 2009, 65, 4298-4303.	1.9	10
67	A new route to phosphonium polymer network solids via cyclotrimerization. Journal of Polymer Science Part A, 2017, 55, 1620-1625.	2.3	9
68	Phosphoniumâ€based polyelectrolyte networks with high thermal stability, high alkaline stability, and high surface areas. Journal of Polymer Science Part A, 2019, 57, 598-604.	2.3	9
69	Synthesis and solid state structures of increasingly sterically crowded 1,4-diiodo-2,3,5,6-tetraarylbenzenes: a new series of bulky benzenes and aryls. New Journal of Chemistry, 2003, 27, 442-445.	2.8	8
70	Phosphonium polyelectrolytes: influence of diphosphine spacer on layerâ€byâ€layer assembly with anionic conjugated polymers. Polymer International, 2015, 64, 1381-1388.	3.1	8
71	Influence of spacer length and rigidity on properties of phosphonium polymers and on their supramolecular assembly with a conjugated polyelectrolyte. Journal of Materials Chemistry C, 2015, 3, 4537-4544.	5.5	8
72	Morphological and mechanical characterization of high-strength sulfur composites prepared with variably-sized lignocellulose particles. Materials Advances, 2021, 2, 7413-7422.	5.4	8

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73	Thermomorphological and mechanical properties of vulcanized octenyl succinate/terpenoid-derivatized corn starch composites. Materials Advances, 2022, 3, 4186-4193.	5.4	8
74	Poly(pâ€phenylenevinylene) Derivatives with Defined Conjugation Segments and Postâ€Polymerization Modification with Sterically Enshrouded Chromophores. Macromolecular Rapid Communications, 2010, 31, 752-757.	3.9	4
75	Tetraarylphosphonium perfluorocyclobutyl polyelectrolyte with low critical surface energy, high thermal stability, and high alkaline resistance. Journal of Polymer Science Part A, 2019, 57, 2267-2272.	2.3	4
76	Intercation spacing and side chain effects on phosphonium polymers: Thermal, supramolecular, and bactericidal properties. Journal of Polymer Science Part A, 2019, 57, 24-34.	2.3	4
77	High Performance of Anion Exchange Blend Membranes Based on Novel Phosphonium Cation Polymers for All-Vanadium Redox Flow Battery Applications. ACS Applied Materials & Interfaces, 2021, 13, 45935-45943.	8.0	4
78	Synthesis, photophysical and electrochemical properties of conjugated polymers incorporating 9,9-dialkyl-1,4-fluorenylene units with thiophene, carbazole and triarylamine comonomers. Polymer Chemistry, 2012, 3, 3318.	3.9	3
79	Conjugated Polymers Featuring Oxacyclophaneâ€scaffolded Ï€â€stacking Interactions. Macromolecular Chemistry and Physics, 2014, 215, 351-357.	2.2	3
80	Influence of Sideâ€Chain Composition on Polythiophene Properties and Supramolecular Assembly of Anionic Polythiophene Derivatives. Journal of Polymer Science Part A, 2019, 57, 1173-1179.	2.3	3
81	Conjugated polymers with regularly spacedm-phenylene units and post-polymerization modification to yield stimuli-responsive materials. Polymer International, 2015, 64, 730-739.	3.1	1
82	Sterically crowded 1,4-diiodobenzene as a precursor to difunctional hypervalent iodine compounds. Chemical Communications, 2022, 58, 1159-1162.	4.1	1
83	Macromol. Rapid Commun. 16/2009. Macromolecular Rapid Communications, 2009, 30, .	3.9	0
84	Conjugated polymers with m-pyridine linkages: synthesis, photophysics, solution structure and film morphology. Journal of Materials Chemistry C, 2014, 2, 8113-8121.	5.5	0
85	Donorâ€“Acceptor 1,4â€Fluorenylene Chromophores: Photophysics, Electrochemistry, and Synthesis through a Route for Asymmetric Chromophore Preparation. European Journal of Organic Chemistry, 2014, 2014, 5998-6009.	2.4	0
86	Polyelectrolyte membrane PEM and fuelcell catalyst studies using a miniaturized PEM fuel cell test fixture. , 2018, , .		0