Howard M Colquhoun

List of Publications by Year
in descending order

81 papers	4,665 citations	126907 33 h-index	95266 68 g-index
87 all docs	87 docs citations	87 times ranked	4611 citing authors

#	Article	IF	Citations
1	A Healable Supramolecular Polymer Blend Based on Aromatic Ï€â^Ï€ Stacking and Hydrogen-Bonding Interactions. Journal of the American Chemical Society, 2010, 132, 12051-12058.	13.7	779
2	A self-repairing, supramolecular polymer system: healability as a consequence of donorâ€“acceptor Ï€â€“Ï€ stacking interactions. Chemical Communications, 2009, , 6717.	4.1	475
3	Healable polymeric materials: a tutorial review. Chemical Society Reviews, 2010, 39, 1973.	38.1	389
4	High-Strength, Healable, Supramolecular Polymer Nanocomposites. Journal of the American Chemical Society, 2012, 134, 5362-5368.	13.7	303
5	A Supramolecular Polymer Based on Tweezer-Type Ï€â^Ï€ Stacking Interactions: Molecular Design for Healability and Enhanced Toughness. Chemistry of Materials, 2011, 23, 6-8.	6.7	222
6	Big and little Meccano. Tetrahedron, 2008, 64, 8231-8263.	1.9	193
7	Information-containing macromolecules. Nature Chemistry, 2014, 6, 455-456.	13.6	189
8	A novel self-healing supramolecular polymer system. Faraday Discussions, 2009, 143, 251.	3.2	186
9	Healable supramolecular polymers. Polymer Chemistry, 2013, 4, 4860.	3.9	138
10	Sequence-selective assembly of tweezer molecules on linear templates enables frameshift-reading of sequence information. Nature Chemistry, 2010, 2, 653-660.	13.6	86
11	Sterically Controlled Recognition of Macromolecular Sequence Information by Molecular Tweezers. Journal of the American Chemical Society, 2007, 129, 16163-16174.	13.7	84
12	Design, synthesis and computational modelling of aromatic tweezer-molecules as models for chain-folding polymer blends. Tetrahedron, 2008, 64, 8346-8354.	1.9	77
13	Multivalency in healable supramolecular polymers: the effect of supramolecular cross-link density on the mechanical properties and healing of non-covalent polymer networks. Polymer Chemistry, 2014, 5, 3680-3688.	3.9	75
14	Macrocyclic Aromatic Ether-Imide-Sulfones:Â Versatile Supramolecular Receptors with Extreme Thermochemical and Oxidative Stability. Journal of the American Chemical Society, 2002, 124, 13346-13347.	13.7	70
15	Recognition of Polyimide Sequence Information by a Molecular Tweezer. Angewandte Chemie - International Edition, 2004, 43, 5040-5045.	13.8	70
16	Extreme Complementarity in a Macrocycleâ^Tweezer Complex. Organic Letters, 2003, 5, 4353-4356.	4.6	69
17	Recent work on entropically-driven ring-opening polymerizations: some potential applications. Polymers for Advanced Technologies, 2005, 16, 84-94.	3.2	60
18	One-Pot Synthesis and Characterization of Soluble Poly(aryl etherâ^'ketone)s Having Pendant Carboxyl Groups. Macromolecules, 2003, 36, 4766-4771.	4.8	56

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19	Perylene as an electron-rich moiety in healable, complementary Ï€â€“Ï€ stacked, supramolecular polymer systems. Polymer, 2015, 69, 293-300.	3.8	56
20	Molecular recognition between functionalized gold nanoparticles and healable, supramolecular polymer blends â€“ a route to property enhancement. Polymer Chemistry, 2013, 4, 4902.	3.9	55
21	Reversible, Nondegradative Conversion of Crystalline Aromatic Poly(ether ketone)s into Organo-Soluble Poly(ether dithioketal)s. Macromolecules, 2009, 42, 1955-1963.	4.8	48
22	Inducedâ€Fit Binding of Ï€â€Electronâ€Donor Substrates to Macrocyclic Aromatic Ether Imide Sulfones: A Versatile Approach to Molecular Assembly. Chemistry - A European Journal, 2010, 16, 907-918.	3.3	46
23	Synthesis and solution-state dynamics of donorâ€“acceptor oligorotaxane foldamers. Chemical Science, 2013, 4, 1470.	7.4	43
24	Supramolecular Approach to New Inkjet Printing Inks. ACS Applied Materials & Interfaces, 2015, 7, 8906-8914.	8.0	40
25	Thermo-responsive microphase separated supramolecular polyurethanes. Polymer Chemistry, 2010, 1, 1263.	3.9	39
26	Materials that heal themselves. Nature Chemistry, 2012, 4, 435-436.	13.6	38
27	Synthesis of a Catechol-Based Poly(ether ether ketone) (â€œo-PEEKâ€) by Classical Step-Growth Polymerization and by Entropically Driven Ring-Opening Polymerization of Macrocyclic Oligomers. Macromolecules, 2006, 39, 6467-6472.	4.8	36
28	Chlorine tolerant, multilayer reverse-osmosis membranes with high permeate flux and high salt rejection. Journal of Materials Chemistry, 2010, 20, 4629.	6.7	35
29	Principles of sequence-recognition in aromatic polyimides. Chemical Communications, 2004, , 2650.	4.1	34
30	Superacid-Catalyzed Polycondensation of Acenaphthenequinone with Aromatic Hydrocarbons. Macromolecules, 2005, 38, 6005-6014.	4.8	34
31	An aromatic polyether in which sequence-randomization leads to induction of crystallinity: x-ray structure of the crystalline phase [-OArCOArArCOAr-]n (Ar = 1,4-phenylene). Macromolecules, 1993, 26, 107-111.	4.8	33
32	Crystal and Molecular Simulation of High-Performance Polymers. Accounts of Chemical Research, 2000, 33, 189-198.	15.6	33
33	Thermoresponsive Supramolecular Polymer Network Comprising Pyrene-Functionalized Gold Nanoparticles and a Chain-Folding Polydiimide. Macromolecules, 2012, 45, 5567-5574.	4.8	33
34	Mutual binding of polymer end-groups by complementary Ï€â€“Ï€-stacking: a molecular â€œRoman Handshakeâ€• Chemical Communications, 2013, 49, 454-456.	4.1	33
35	Ringâ^'Chain Interconversion in High-Performance Polymer Systems. 3. Cyclodepolymerization of Poly(m-phenylene isophthalamide) (Nomex) and Entropically Driven Ring-Opening Polymerization of the Macrocyclic Oligomers so Produced. Macromolecules, 2005, 38, 722-729.	4.8	27
36	Superelectrophiles in Polymer Chemistry. A Novel, One-Pot Synthesis of High-Tg, High-Temperature Polymers. Macromolecules, 2004, 37, 5140-5141.	4.8	26

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37	Film-Forming Polymers Containing in the Main-Chain Dibenzo Crown Ethers with Aliphatic (C10â^'C16), Aliphaticâ^'Aromatic, or Oxyindole Spacers. Macromolecules, 2006, 39, 4696-4703.	4.8	26
38	Conformational Modulation of Sequence Recognition in Synthetic Macromolecules. Journal of the American Chemical Society, 2011, 133, 19442-19447.	13.7	24
39	Enhancement of microphase ordering and mechanical properties of supramolecular hydrogen-bonded polyurethane networks. Polymer Chemistry, 2018, 9, 3406-3414.	3.9	24
40	Dithioacetalisation of PEEK: a general technique for the solubilisation and characterisation of semi-crystalline aromatic polyketones. Chemical Communications, 2007, , 3365.	4.1	21
41	A General Synthesis of Macrocyclic Ï€-Electron-Acceptor Systems. Organic Letters, 2009, 11, 5238-5241.	4.6	21
42	Evolution of supramolecular healable composites: a minireview. Polymer International, 2014, 63, 933-942.	3.1	19
43	Efficient access to conjugated 4,4â€²-bipyridinium oligomers using the Zincke reaction: synthesis, spectroscopic and electrochemical properties. Organic and Biomolecular Chemistry, 2016, 14, 980-988.	2.8	19
44	Recognition of sequence-information in synthetic copolymer chains by a conformationally-constrained tweezer molecule. Faraday Discussions, 2009, 143, 205.	3.2	18
45	Self-healing polymers. Polymer Chemistry, 2013, 4, 4832.	3.9	17
46	One-step syntheses of very large cage-type molecules from aromatic sub-unitsElectronic supplementary data (ESI) available: analytical and spectroscopic data for compounds 3â€“5 and 8. See http://www.rsc.org/suppdata/cc/b1/b108124c/. Chemical Communications, 2001, , 2574-2575.	4.1	15
47	A Novel Approach to Processing High-Performance Polymers that Exploits Entropically Driven Ring-Opening Polymerization. Macromolecular Rapid Communications, 2005, 26, 1377-1382.	3.9	15
48	Exchange Reactions of Poly(arylene ether ketone) Dithioketals with Aliphatic Diols: Formation and Deprotection of Poly(arylene ether ketal)s. Macromolecules, 2017, 50, 9561-9568.	4.8	15
49	Mutual Complexation between Ï€â€“Ï€ Stacked Molecular Tweezers. Crystal Growth and Design, 2018, 18, 386-392.	3.0	15
50	Spontaneous Ring-Opening Polymerization of Macrocyclic Aromatic Thioether Ketones under Transient High-Temperature Conditions. Macromolecular Rapid Communications, 2004, 25, 808-811.	3.9	14
51	Microfabrication of high-performance aromatic polymers as nanotubes or fibrils by in situ ring-opening polymerisation of macrocyclic precursors. Journal of Materials Chemistry, 2003, 13, 1504-1506.	6.7	13
52	First Structural Analysis of a Naphthalene-Based Poly(ether ketone):Â Crystal and Molecular Simulation from X-ray Powder Data and Diffraction Modeling. Macromolecules, 2003, 36, 6416-6421.	4.8	12
53	Direct Iminization of PEEK. Macromolecules, 2011, 44, 7864-7867.	4.8	11
54	Molecular design of a discrete chain-folding polyimide for controlled inkjet deposition of supramolecular polymers. Polymer Chemistry, 2015, 6, 7342-7352.	3.9	11

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55	Reduction of carbonyl groups in aromatic polyketones: synthesis and characterization of methylene-bridged polyaryl-ethers and -thioethers. Polymer, 1999, 40, 5173-5182.	3.8	9
56	Conjugated, rod-like viologen oligomers: Correlation of oligomer length with conductivity and photoconductivity. Synthetic Metals, 2018, 241, 31-38.	3.9	9
57	The oxadiazolyldiazenido(1â€“) ligand: a remarkably versatile platform for the synthesis of heteropolynuclear transition metal complexes. Dalton Transactions, 2007, , 3864.	3.3	8
58	Prediction of cathodic E 1/2 1 and E 1/2 2 values for viologen-containing conjugated unimers and dimers from calculated p K b values of the aromatic substituents. Tetrahedron Letters, 2017, 58, 1859-1862.	1.4	8
59	Trifluoromethylation of Carbonyl Groups in Aromatic Poly(ether ketone)s: Formation of Strongly Polar yet Surface-Hydrophobic Poly(arylenenecarbinol)s. Macromolecules, 2018, 51, 3415-3422.	4.8	8
60	Ring-opening polymerization in molten PEEK: transient reduction of melt-viscosity by macrocyclic aromatic thioetherketones. Journal of Materials Chemistry, 2012, 22, 20458.	6.7	7
61	Cocrystalline Copolyimides of Poly(ethylene 2,6-naphthalate). ACS Macro Letters, 2014, 3, 968-971.	4.8	7
62	Non-covalent dimerisation of a bicyclic aromatic oligomer via loopâ€“loop interlocking in the solid state. New Journal of Chemistry, 2002, 26, 1703-1705.	2.8	6
63	Quadruple stacking of macrocyclic viologen radical-cations. Supramolecular Chemistry, 2018, 30, 751-757.	1.2	6
64	Inducing hardening and healability in poly(ethylene-co-acrylic acid) via blending with complementary low molecular weight additives. RSC Advances, 2018, 8, 41445-41453.	3.6	6
65	A macrocyclic receptor containing two viologen species connected by conjugated terphenyl groups. Organic and Biomolecular Chemistry, 2018, 16, 5006-5015.	2.8	6
66	Critical Role of Diffraction Simulation in Establishing the Crystal and Molecular Structures of Poly(biaryl ether ketone)s. Macromolecules, 2002, 35, 9420-9425.	4.8	5
67	Enantiospecific Assembly of a Homochiral, Hexanuclear Palladium Complex. European Journal of Inorganic Chemistry, 2009, 2009, 999-1002.	2.0	5
68	Bis(hydroxy-isoindolinone)s: Synthesis, Stereochemistry, Polymer Chemistry, and Supramolecular Assembly. Organic Letters, 2010, 12, 3756-3759.	4.6	5
69	Multifunctional, Biocompatible, Nonâ€peptidic Hydrogels: from Water Purification to Drug Delivery. ChemistrySelect, 2016, 1, 1641-1649.	1.5	5
70	Elements of fractal geometry in the ¹H NMR spectrum of a copolymer intercalation-complex: identification of the underlying Cantor set. Chemical Science, 2018, 9, 4052-4061.	7.4	5
71	From Food to Mobility: Investigating a Screening Assay for New Automotive Antioxidants Using the Stable Radical DPPH. ChemistrySelect, 2021, 6, 9179-9184.	1.5	5
72	Enthalpy-Driven Ring-Opening Polymerization of Highly Strained Macrocyclic Biaryl-Ether-Ketones. Macromolecules, 2005, 38, 10421-10428.	4.8	4

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73	Functionalised PEGs with photo-dimerisable, anthracenyl end-groups: New UV-curable materials for use in inkjet formulations. Progress in Organic Coatings, 2021, 151, 106105.	3.9	4
74	Aromatic poly(fluorocarbinol)s: Soluble, hydrophobic binders for inkjet formulations. Progress in Organic Coatings, 2021, 158, 106378.	3.9	4
75	Characterization of the Layered Structure in Main Chain Dibenzo-18-crown-6 Ether Polymers by Simultaneous WAXS/MAXSâ^'SAXS/DSC Measurements. Macromolecules, 2007, 40, 3355-3360.	4.8	3
76	Controlled variation of monomer sequence distribution in the synthesis of aromatic poly(ether) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	1.8	3
77	Supramolecular complexation between chain-folding poly(ester-imide)s and polycyclic aromatics: a fractal-based pattern of NMR ring-current shielding. Polymer Chemistry, 2019, 10, 6641-6650.	3.9	3
78	A thermotropic poly(ether ketone) based on the p-quaterphenyl unit: evidence for a smectic C phase. Polymer Chemistry, 2020, 11, 75-83.	3.9	3
79	Sequence modification in copoly(ester-imide)s: a catalytic/supramolecular approach to the evolution and reading of copolymer sequence information. Polymer Journal, 2021, 53, 747-751.	2.7	1
80	Single-site binding of pyrene to poly(ester-imide)s incorporating long spacer-units: prediction of NMR resonance-patterns from a fractal model. Chemical Science, 2020, 11, 12165-12177.	7.4	1
81	A tungsten complex containing a highly delocalized metalâ€“ligand system. Acta Crystallographica Section C: Crystal Structure Communications, 2008, 64, m390-m393.	0.4	0