

Howard M Colquhoun

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Functionalised PEGs with photo-dimerisable, anthracenyl end-groups: New UV-curable materials for use in inkjet formulations. <i>Progress in Organic Coatings</i> , 2021, 151, 106105.	3.9	4
2	Sequence modification in copoly(ester-imide)s: a catalytic/supramolecular approach to the evolution and reading of copolymer sequence information. <i>Polymer Journal</i> , 2021, 53, 747-751.	2.7	1
3	Aromatic poly(fluorocarbinol)s: Soluble, hydrophobic binders for inkjet formulations. <i>Progress in Organic Coatings</i> , 2021, 158, 106378.	3.9	4
4	From Food to Mobility: Investigating a Screening Assay for New Automotive Antioxidants Using the Stable Radical DPPH. <i>ChemistrySelect</i> , 2021, 6, 9179-9184.	1.5	5
5	A thermotropic poly(ether ketone) based on the <i>p</i> -quaterphenyl unit: evidence for a smectic C phase. <i>Polymer Chemistry</i> , 2020, 11, 75-83.	3.9	3
6	Single-site binding of pyrene to poly(ester-imide)s incorporating long spacer-units: prediction of NMR resonance-patterns from a fractal model. <i>Chemical Science</i> , 2020, 11, 12165-12177.	7.4	1
7	Supramolecular complexation between chain-folding poly(ester-imide)s and polycyclic aromatics: a fractal-based pattern of NMR ring-current shielding. <i>Polymer Chemistry</i> , 2019, 10, 6641-6650.	3.9	3
8	Trifluoromethylation of Carbonyl Groups in Aromatic Poly(ether ketone)s: Formation of Strongly Polar yet Surface-Hydrophobic Poly(arylenecarbinol)s. <i>Macromolecules</i> , 2018, 51, 3415-3422.	4.8	8
9	Mutual Complexation between π -Stacked Molecular Tweezers. <i>Crystal Growth and Design</i> , 2018, 18, 386-392.	3.0	15
10	Conjugated, rod-like viologen oligomers: Correlation of oligomer length with conductivity and photoconductivity. <i>Synthetic Metals</i> , 2018, 241, 31-38.	3.9	9
11	Elements of fractal geometry in the ^1H NMR spectrum of a copolymer intercalation-complex: identification of the underlying Cantor set. <i>Chemical Science</i> , 2018, 9, 4052-4061.	7.4	5
12	Quadruple stacking of macrocyclic viologen radical-cations. <i>Supramolecular Chemistry</i> , 2018, 30, 751-757.	1.2	6
13	Inducing hardening and healability in poly(ethylene-co-acrylic acid) <i>via</i> blending with complementary low molecular weight additives. <i>RSC Advances</i> , 2018, 8, 41445-41453.	3.6	6
14	A macrocyclic receptor containing two viologen species connected by conjugated terphenyl groups. <i>Organic and Biomolecular Chemistry</i> , 2018, 16, 5006-5015.	2.8	6
15	Enhancement of microphase ordering and mechanical properties of supramolecular hydrogen-bonded polyurethane networks. <i>Polymer Chemistry</i> , 2018, 9, 3406-3414.	3.9	24
16	Prediction of cathodic $E_{1/2 1}$ and $E_{1/2 2}$ values for viologen-containing conjugated unimers and dimers from calculated pK_b values of the aromatic substituents. <i>Tetrahedron Letters</i> , 2017, 58, 1859-1862.	1.4	8
17	Exchange Reactions of Poly(arylene ether ketone) Dithioketals with Aliphatic Diols: Formation and Deprotection of Poly(arylene ether ketal)s. <i>Macromolecules</i> , 2017, 50, 9561-9568.	4.8	15
18	Multifunctional, Biocompatible, Non-peptidic Hydrogels: from Water Purification to Drug Delivery. <i>ChemistrySelect</i> , 2016, 1, 1641-1649.	1.5	5

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19	Controlled variation of monomer sequence distribution in the synthesis of aromatic poly(ether) Tj ETQq1 1 0.784314 rgBT /Oylock 10	1.8	3
20	Efficient access to conjugated 4,4'-bipyridinium oligomers using the Zincke reaction: synthesis, spectroscopic and electrochemical properties. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 980-988.	2.8	19
21	Supramolecular Approach to New Inkjet Printing Inks. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 8906-8914.	8.0	40
22	Perylene as an electron-rich moiety in healable, complementary π - π stacked, supramolecular polymer systems. <i>Polymer</i> , 2015, 69, 293-300.	3.8	56
23	Molecular design of a discrete chain-folding polyimide for controlled inkjet deposition of supramolecular polymers. <i>Polymer Chemistry</i> , 2015, 6, 7342-7352.	3.9	11
24	Cocrystalline Copolyimides of Poly(ethylene 2,6-naphthalate). <i>ACS Macro Letters</i> , 2014, 3, 968-971.	4.8	7
25	Information-containing macromolecules. <i>Nature Chemistry</i> , 2014, 6, 455-456.	13.6	189
26	Multivalency in healable supramolecular polymers: the effect of supramolecular cross-link density on the mechanical properties and healing of non-covalent polymer networks. <i>Polymer Chemistry</i> , 2014, 5, 3680-3688.	3.9	75
27	Evolution of supramolecular healable composites: a minireview. <i>Polymer International</i> , 2014, 63, 933-942.	3.1	19
28	Self-healing polymers. <i>Polymer Chemistry</i> , 2013, 4, 4832.	3.9	17
29	Mutual binding of polymer end-groups by complementary π - π -stacking: a molecular "Roman Handshake". <i>Chemical Communications</i> , 2013, 49, 454-456.	4.1	33
30	Synthesis and solution-state dynamics of donor-acceptor oligorotaxane foldamers. <i>Chemical Science</i> , 2013, 4, 1470.	7.4	43
31	Molecular recognition between functionalized gold nanoparticles and healable, supramolecular polymer blends - a route to property enhancement. <i>Polymer Chemistry</i> , 2013, 4, 4902.	3.9	55
32	Healable supramolecular polymers. <i>Polymer Chemistry</i> , 2013, 4, 4860.	3.9	138
33	Ring-opening polymerization in molten PEEK: transient reduction of melt-viscosity by macrocyclic aromatic thioetherketones. <i>Journal of Materials Chemistry</i> , 2012, 22, 20458.	6.7	7
34	Thermoresponsive Supramolecular Polymer Network Comprising Pyrene-Functionalized Gold Nanoparticles and a Chain-Folding Polydiimide. <i>Macromolecules</i> , 2012, 45, 5567-5574.	4.8	33
35	High-Strength, Healable, Supramolecular Polymer Nanocomposites. <i>Journal of the American Chemical Society</i> , 2012, 134, 5362-5368.	13.7	303
36	Materials that heal themselves. <i>Nature Chemistry</i> , 2012, 4, 435-436.	13.6	38

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37	A Supramolecular Polymer Based on Tweezer-Type π - π Stacking Interactions: Molecular Design for Healability and Enhanced Toughness. <i>Chemistry of Materials</i> , 2011, 23, 6-8.	6.7	222
38	Conformational Modulation of Sequence Recognition in Synthetic Macromolecules. <i>Journal of the American Chemical Society</i> , 2011, 133, 19442-19447.	13.7	24
39	Direct Iminization of PEEK. <i>Macromolecules</i> , 2011, 44, 7864-7867.	4.8	11
40	Induced π - π Fit Binding of π -Electron Donor Substrates to Macrocyclic Aromatic Ether Imide Sulfones: A Versatile Approach to Molecular Assembly. <i>Chemistry - A European Journal</i> , 2010, 16, 907-918.	3.3	46
41	Sequence-selective assembly of tweezer molecules on linear templates enables frameshift-reading of sequence information. <i>Nature Chemistry</i> , 2010, 2, 653-660.	13.6	86
42	A Healable Supramolecular Polymer Blend Based on Aromatic π - π Stacking and Hydrogen-Bonding Interactions. <i>Journal of the American Chemical Society</i> , 2010, 132, 12051-12058.	13.7	779
43	Thermo-responsive microphase separated supramolecular polyurethanes. <i>Polymer Chemistry</i> , 2010, 1, 1263.	3.9	39
44	Bis(hydroxy-isoindolinone)s: Synthesis, Stereochemistry, Polymer Chemistry, and Supramolecular Assembly. <i>Organic Letters</i> , 2010, 12, 3756-3759.	4.6	5
45	Healable polymeric materials: a tutorial review. <i>Chemical Society Reviews</i> , 2010, 39, 1973.	38.1	389
46	Chlorine tolerant, multilayer reverse-osmosis membranes with high permeate flux and high salt rejection. <i>Journal of Materials Chemistry</i> , 2010, 20, 4629.	6.7	35
47	Enantiospecific Assembly of a Homochiral, Hexanuclear Palladium Complex. <i>European Journal of Inorganic Chemistry</i> , 2009, 2009, 999-1002.	2.0	5
48	A General Synthesis of Macrocyclic π -Electron-Acceptor Systems. <i>Organic Letters</i> , 2009, 11, 5238-5241.	4.6	21
49	Reversible, Nondegradative Conversion of Crystalline Aromatic Poly(ether ketone)s into Organo-Soluble Poly(ether dithioketal)s. <i>Macromolecules</i> , 2009, 42, 1955-1963.	4.8	48
50	A self-repairing, supramolecular polymer system: healability as a consequence of donor-acceptor π - π stacking interactions. <i>Chemical Communications</i> , 2009, , 6717.	4.1	475
51	Recognition of sequence-information in synthetic copolymer chains by a conformationally-constrained tweezer molecule. <i>Faraday Discussions</i> , 2009, 143, 205.	3.2	18
52	A novel self-healing supramolecular polymer system. <i>Faraday Discussions</i> , 2009, 143, 251.	3.2	186
53	A tungsten complex containing a highly delocalized metal-ligand system. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 2008, 64, m390-m393.	0.4	0
54	Design, synthesis and computational modelling of aromatic tweezer-molecules as models for chain-folding polymer blends. <i>Tetrahedron</i> , 2008, 64, 8346-8354.	1.9	77

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55	Big and little Meccano. <i>Tetrahedron</i> , 2008, 64, 8231-8263.	1.9	193
56	The oxadiazolyldiazenido(1 π) ligand: a remarkably versatile platform for the synthesis of heteropolynuclear transition metal complexes. <i>Dalton Transactions</i> , 2007, , 3864.	3.3	8
57	Dithioacetalisation of PEEK: a general technique for the solubilisation and characterisation of semi-crystalline aromatic polyketones. <i>Chemical Communications</i> , 2007, , 3365.	4.1	21
58	Sterically Controlled Recognition of Macromolecular Sequence Information by Molecular Tweezers. <i>Journal of the American Chemical Society</i> , 2007, 129, 16163-16174.	13.7	84
59	Characterization of the Layered Structure in Main Chain Dibenzo-18-crown-6 Ether Polymers by Simultaneous WAXS/MAXS \sim SAXS/DSC Measurements. <i>Macromolecules</i> , 2007, 40, 3355-3360.	4.8	3
60	Film-Forming Polymers Containing in the Main-Chain Dibenzo Crown Ethers with Aliphatic (C10 \sim C16), Aliphatic \sim Aromatic, or Oxyindole Spacers. <i>Macromolecules</i> , 2006, 39, 4696-4703.	4.8	26
61	Synthesis of a Catechol-Based Poly(ether ether ketone) (α -PEEK) by Classical Step-Growth Polymerization and by Entropically Driven Ring-Opening Polymerization of Macrocylic Oligomers. <i>Macromolecules</i> , 2006, 39, 6467-6472.	4.8	36
62	A Novel Approach to Processing High-Performance Polymers that Exploits Entropically Driven Ring-Opening Polymerization. <i>Macromolecular Rapid Communications</i> , 2005, 26, 1377-1382.	3.9	15
63	Recent work on entropically-driven ring-opening polymerizations: some potential applications. <i>Polymers for Advanced Technologies</i> , 2005, 16, 84-94.	3.2	60
64	Enthalpy-Driven Ring-Opening Polymerization of Highly Strained Macrocylic Biaryl-Ether-Ketones. <i>Macromolecules</i> , 2005, 38, 10421-10428.	4.8	4
65	Superacid-Catalyzed Polycondensation of Acenaphthenequinone with Aromatic Hydrocarbons. <i>Macromolecules</i> , 2005, 38, 6005-6014.	4.8	34
66	Ring \sim Chain Interconversion in High-Performance Polymer Systems. 3. Cyclodepolymerization of Poly(m-phenylene isophthalamide) (Nomex) and Entropically Driven Ring-Opening Polymerization of the Macrocylic Oligomers so Produced. <i>Macromolecules</i> , 2005, 38, 722-729.	4.8	27
67	Recognition of Polyimide Sequence Information by a Molecular Tweezer. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 5040-5045.	13.8	70
68	Spontaneous Ring-Opening Polymerization of Macrocylic Aromatic Thioether Ketones under Transient High-Temperature Conditions. <i>Macromolecular Rapid Communications</i> , 2004, 25, 808-811.	3.9	14
69	Principles of sequence-recognition in aromatic polyimides. <i>Chemical Communications</i> , 2004, , 2650.	4.1	34
70	Superelectrophiles in Polymer Chemistry. A Novel, One-Pot Synthesis of High-Tg, High-Temperature Polymers. <i>Macromolecules</i> , 2004, 37, 5140-5141.	4.8	26
71	One-Pot Synthesis and Characterization of Soluble Poly(aryl ether \sim ketone)s Having Pendant Carboxyl Groups. <i>Macromolecules</i> , 2003, 36, 4766-4771.	4.8	56
72	Extreme Complementarity in a Macrocycle \sim Tweezer Complex. <i>Organic Letters</i> , 2003, 5, 4353-4356.	4.6	69

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73	First Structural Analysis of a Naphthalene-Based Poly(ether ketone): Crystal and Molecular Simulation from X-ray Powder Data and Diffraction Modeling. <i>Macromolecules</i> , 2003, 36, 6416-6421.	4.8	12
74	Microfabrication of high-performance aromatic polymers as nanotubes or fibrils by in situ ring-opening polymerisation of macrocyclic precursors. <i>Journal of Materials Chemistry</i> , 2003, 13, 1504-1506.	6.7	13
75	Macrocyclic Aromatic Ether-Imide-Sulfones: Versatile Supramolecular Receptors with Extreme Thermochemical and Oxidative Stability. <i>Journal of the American Chemical Society</i> , 2002, 124, 13346-13347.	13.7	70
76	Critical Role of Diffraction Simulation in Establishing the Crystal and Molecular Structures of Poly(biaryl ether ketone)s. <i>Macromolecules</i> , 2002, 35, 9420-9425.	4.8	5
77	Non-covalent dimerisation of a bicyclic aromatic oligomer via loop-loop interlocking in the solid state. <i>New Journal of Chemistry</i> , 2002, 26, 1703-1705.	2.8	6
78	One-step syntheses of very large cage-type molecules from aromatic sub-units Electronic supplementary data (ESI) available: analytical and spectroscopic data for compounds 3-5 and 8. See http://www.rsc.org/suppdata/cc/b1/b108124c/ . <i>Chemical Communications</i> , 2001, , 2574-2575.	4.1	15
79	Crystal and Molecular Simulation of High-Performance Polymers. <i>Accounts of Chemical Research</i> , 2000, 33, 189-198.	15.6	33
80	Reduction of carbonyl groups in aromatic polyketones: synthesis and characterization of methylene-bridged polyaryl-ethers and -thioethers. <i>Polymer</i> , 1999, 40, 5173-5182.	3.8	9
81	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). <i>Macromolecules</i> , 1993, 26, 107-111.	4.8	33