Gareth J Price

List of Publications by Year
in descending order

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139 papers	5,227 citations	109321 35 h-index	95266 68 g-index
142 all docs	142 docs citations	142 times ranked	5047 citing authors

#	Article	IF	Citations
1	APPLICATIONS OF ULTRASOUND TO MATERIALS CHEMISTRY. Annual Review of Materials Research, 1999, 29, 295-326.	5.5	1,436
2	Ultrasonic degradation of polymer solutions: 2. The effect of temperature, ultrasound intensity and dissolved gases on polystyrene in toluene. Polymer, 1993, 34, 4111-4117.	3.8	171
3	Polymerization of methyl methacrylate initiated by ultrasound. Macromolecules, 1992, 25, 6447-6454.	4.8	137
4	Ultrasonic degradation of polymer solutionsâ€"III. The effect of changing solvent and solution concentration. European Polymer Journal, 1993, 29, 419-424.	5.4	117
5	Ultrasonically enhanced polymer synthesis. Ultrasonics Sonochemistry, 1996, 3, S229-S238.	8.2	107
6	Easy-separable magnetic nanoparticle-supported Pd catalysts: Kinetics, stability and catalyst re-use. Journal of Catalysis, 2009, 268, 318-328.	6.2	105
7	Synergistic effects of combining ultrasound with the Fenton process in the degradation of Reactive Blue 19. Ultrasonics Sonochemistry, 2014, 21, 1206-1212.	8.2	105
8	The use of dosimeters to measure radical production in aqueous sonochemical systems. Ultrasonics, 1993, 31, 451-456.	3.9	102
9	Ultrasonic degradation of polymer solutions. 1. Polystyrene revisited. Polymer International, 1991, 24, 159-164.	3.1	99
10	Control of polymer structure using power ultrasound. Ultrasonics Sonochemistry, 1994, 1, S51-S57.	8.2	94
11	Acoustic Emission Spectra from 515 kHz Cavitation in Aqueous Solutions Containing Surface-Active Solutes. Journal of the American Chemical Society, 2007, 129, 2250-2258.	13.7	85
12	Disposition of Nanoparticles and an Associated Lipophilic Permeant following Topical Application to the Skin. Molecular Pharmaceutics, 2009, 6, 1441-1448.	4.6	81
13	Sonoluminescence Quenching of Organic Compounds in Aqueous Solution:Â Frequency Effects and Implications for Sonochemistry. Journal of the American Chemical Society, 2004, 126, 2755-2762.	13.7	77
14	Recent developments in sonochemical polymerisation. Ultrasonics Sonochemistry, 2003, 10, 277-283.	8.2	74
15	Composition of Calcium Carbonate Polymorphs Precipitated Using Ultrasound. Crystal Growth and Design, 2011, 11, 39-44.	3.0	72
16	Evaluation of drug delivery to intact and porated skin by coherent Raman scattering and fluorescence microscopies. Journal of Controlled Release, 2014, 174, 37-42.	9.9	70
17	Sonochemical acceleration of persulfate decomposition. Polymer, 1996, 37, 3971-3973.	3.8	68
18	Cavitation occurrence around ultrasonic dental scalers. Ultrasonics Sonochemistry, 2009, 16, 692-697.	8.2	59

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19	Influence of Poly(styrene-co-maleic acid) Copolymer Structure on the Properties and Self-Assembly of SMALP Nanodiscs. Biomacromolecules, 2018, 19, 761-772.	5.4	57
20	Acoustic Emission from Cavitating Solutions:â€‰ Implications for the Mechanisms of Sonochemical Reactions. Journal of Physical Chemistry B, 2005, 109, 17799-17801.	2.6	53
21	Measurement of solubility parameters by gas-liquid chromatrography. Journal of Chromatography A, 1986, 369, 273-280.	3.7	52
22	The effect of high-intensity ultrasound on solid polymers. Polymer, 1995, 36, 4919-4925.	3.8	51
23	Ultrasonic intensification of ozone and electrochemical destruction of 1,3-dinitrobenzene and 2,4-dinitrotoluene. Ultrasonics Sonochemistry, 2006, 13, 303-307.	8.2	50
24	Wurtz synthesis of high molecular weight poly(dibutylstannane). Chemical Communications, 1996, , 711.	4.1	49
25	Ultrasonically enhanced persulfate oxidation of polyethylene surfaces. Polymer, 1996, 37, 5825-5829.	3.8	49
26	Direct observation of cavitation fields at 23 and 515 kHz. Ultrasonics Sonochemistry, 2010, 17, 30-33.	8.2	47
27	Measurement of radical production as a result of cavitation in medical ultrasound fields. Ultrasonics Sonochemistry, 1997, 4, 165-171.	8.2	46
28	Preparation and thermal properties of block copolymers of PDMS with styrene or methyl methacrylate using ATRP. Polymer, 2001, 42, 4767-4771.	3.8	46
29	Neural network prediction of glass-transition temperatures from monomer structure. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 2491.	1.7	44
30	Sonochemically-Assisted Modification of Polyethylene Surfaces. Macromolecules, 1996, 29, 5664-5670.	4.8	43
31	Synthesis of Temperature Responsive Poly(N-isopropylacrylamide) Using Ultrasound Irradiation. Journal of Physical Chemistry B, 2010, 114, 3178-3184.	2.6	41
32	Inverse gas chromatographic measurement of solubility parameters in liquid crystalline systems. Journal of Chromatography A, 2002, 964, 199-204.	3.7	40
33	The rhodium-catalysed 1,2-addition of arylboronic acids to aldehydes and ketones with sulfonated S-Phos. Tetrahedron Letters, 2009, 50, 7365-7368.	1.4	40
34	Drug delivery into microneedle-porated nails from nanoparticle reservoirs. Journal of Controlled Release, 2015, 220, 98-106.	9.9	38
35	Correlation of mechanical properties of clay filled polyamide mouldings with chromatographically measured surface energies. Polymer, 2004, 45, 3663-3670.	3.8	37
36	Rhodium Containing Magnetic Nanoparticles: Effective Catalysts for Hydrogenation and the 1,4-Addition of Boronic Acids. Catalysis Letters, 2008, 122, 68-75.	2.6	36

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37	A study to determine whether cavitation occurs around dental ultrasonic scaling instruments. Ultrasonics Sonochemistry, 2005, 12, 233-236.	8.2	35
38	Room temperature sonochemical initiation of thiol-ene reactions. Chemical Communications, 2012, 48, 6800.	4.1	35
39	Ultrasonically initiated polymerization of methyl methacrylate. Ultrasonics, 1991, 29, 166-170.	3.9	33
40	Surface modification of calcium carbonates studied by inverse gas chromatography and the effect on mechanical properties of filled polypropylene. Polymer International, 2004, 53, 430-438.	3.1	33
41	Ultrasonically assisted synthesis and degradation of poly(dimethyl siloxane). Polymer, 1996, 37, 2303-2308.	3.8	31
42	The effect of high intensity ultrasound on the synthesis of some polyurethanes. European Polymer Journal, 2002, 38, 1531-1536.	5.4	31
43	Comparison of static with gas-chromatographic interaction parameters and estimation of the solubility parameter for poly(dimethylsiloxane). Macromolecules, 1986, 19, 362-363.	4.8	30
44	Preparation of poly(organosilanes) using high-intensity ultrasound. Journal of the Chemical Society Chemical Communications, 1992, , 1209.	2.0	29
45	Applications of inverse gas chromatography in the study of liquid crystalline stationary phases. Journal of Chromatography A, 2002, 969, 193-205.	3.7	29
46	A modular approach to catalytic synthesis using a dual-functional linker for Click and Suzuki coupling reactions. Tetrahedron Letters, 2010, 51, 3913-3917.	1.4	29
47	Ultrasonic production of block copolymers as in situ compatibilizers for polymer mixtures. Polymer, 1996, 37, 3975-3978.	3.8	28
48	Chromatographic estimation of filler surface energies and correlation with photodegradation of kaolin filled polyethylene. Polymer, 2004, 45, 1823-1831.	3.8	28
49	Polymerization and copolymerization using high intensity ultrasound. British Polymer Journal, 1990, 23, 63-66.	0.7	26
50	The effect of high-intensity ultrasound on the ring-opening polymerisation of cyclic lactones. European Polymer Journal, 2002, 38, 1753-1760.	5.4	26
51	Organotin compounds bearing mesogenic sidechains: synthesis, X-ray structures and polymerisation chemistry. Journal of Organometallic Chemistry, 2003, 687, 46-56.	1.8	26
52	Static investigation of the influence of polymer molecular weight and loading in the gas chromatographic determination of poly(dimethylsiloxane) interaction parameters. Macromolecules, 1986, 19, 358-361.	4.8	25
53	Ultrasound promoted reaction of Rhodamine B with sodium hypochlorite using sonochemical and dental ultrasonic instruments. Ultrasonics Sonochemistry, 2012, 19, 358-364.	8.2	25
54	Sonochemical modification of carbon nanotubes for enhanced nanocomposite performance. Ultrasonics Sonochemistry, 2018, 40, 123-130.	8.2	25

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55	Crown-ether containing copolymers as selective membranes for quartz crystal microbalance chemical sensors. Polymer International, 2000, 49, 926-930.	3.1	24
56	Sonoluminescence quenching by organic acids in aqueous solution: pH and frequency effects. Chemical Communications, 2002, , 1740-1741.	4.1	24
57	Piezoelectric chemical sensors based on morpholine containing polymers. Sensors and Actuators B: Chemical, 2002, 84, 208-213.	7.8	24
58	Preparation and in Vitro Evaluation of Topical Formulations Based on Polystyrene-poly-2-hydroxyl Methacrylate Nanoparticles. Molecular Pharmaceutics, 2009, 6, 1449-1456.	4.6	24
59	Effects of Temperature and Polymer Composition upon the Aqueous Solution Properties of Comblike Linear Poly(ethylene imine)/Poly(2-ethyl-2-oxazoline)-Based Polymers. Macromolecules, 2011, 44, 7394-7404.	4.8	24
60	Glycidyl methacrylate and N-vinylpyrrolidinone copolymers: synthesis and nuclear magnetic resonance characterization. Polymer, 1994, 35, 3530-3534.	3.8	22
61	Mapping cavitation activity around dental ultrasonic tips. Clinical Oral Investigations, 2013, 17, 1227-1234.	3.0	22
62	Comparative study of the modification of multi-wall carbon nanotubes by gamma irradiation and sonochemically assisted acid etching. Materials Chemistry and Physics, 2018, 207, 23-29.	4.0	21
63	The effect of post-curing chemical changes on the mechanical properties of acrylic bone cement. Journal of Materials Science: Materials in Medicine, 1994, 5, 617-621.	3.6	20
64	Eco-friendly synthesis and catalytic application of chitosan/gold/carbon nanotube nanocomposite films. RSC Advances, 2016, 6, 60180-60186.	3.6	20
65	Correlation of the material properties of calcium carbonate filled polypropylene with the filler surface energies. Journal of Applied Polymer Science, 2003, 88, 1951-1955.	2.6	19
66	Calculation of Solubility Parameters by Inverse Gas Chromatography. ACS Symposium Series, 1989, , 48-58.	0.5	18
67	Selective piezoelectric sensors using polymer reagents. Analyst, The, 1995, 120, 161.	3.5	18
68	The Determination of Thermodynamic Properties of Polymer Solutions by Finite-Concentration Gas Chromatography. Journal of Macromolecular Science Part A, Chemistry, 1986, 23, 1487-1502.	0.3	17
69	The use of gas chromatography to study solubility in polymeric systems. Journal of Solution Chemistry, 1987, 16, 605-613.	1.2	17
70	A re-examination of the sonochemical coupling of bromoaryls.. Tetrahedron Letters, 1991, 32, 7133-7134.	1.4	17
71	Interactions of Solvents with Low Molar Mass and Side Chain Polymer Liquid Crystals Measured by Inverse Gas Chromatography. Journal of Physical Chemistry B, 2004, 108, 16405-16414.	2.6	17
72	The effect of high-intensity ultrasound on diesel fuels. Ultrasonics Sonochemistry, 1995, 2, S67-S70.	8.2	16

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73	Inverse gas chromatography study of poly(dimethyl siloxane)â€"liquid crystal mixtures. Polymer, 2003, 44, 1027-1034.	3.8	16
74	An inverse gas chromatography study of calcination and surface modification of kaolinite clays. Physical Chemistry Chemical Physics, 2003, 5, 5552-5557.	2.8	16
75	Use of the magnetic suspension balance for the study of polymersolutions. Thermochimica Acta, 1984, 82, 161-170.	2.7	15
76	Ultrasound promoted synthesis and properties of chitosan nanocomposites containing carbon nanotubes and silver nanoparticles. European Polymer Journal, 2018, 105, 297-303.	5.4	15
77	An improved azo chromophore for optical NO2 sensing. Physical Chemistry Chemical Physics, 2001, 3, 1750-1754.	2.8	14
78	Use of high-intensity ultrasound as a potential test method for diesel fuel stability. Fuel, 1995, 74, 1394-1397.	6.4	13
79	Sonoluminescence Emission from Aqueous Solutions of Organic Monomers. Journal of Physical Chemistry B, 2003, 107, 14124-14129.	2.6	13
80	Investigation of radical intermediates in polymer sonochemistry. Research on Chemical Intermediates, 2004, 30, 807-827.	2.7	13
81	Potassium selective quartz crystal microbalance chemical sensors using functionalized copolymer coatings. Sensors and Actuators B: Chemical, 2006, 114, 466-472.	7.8	13
82	Synthesis, Radiolabelling and In Vitro Imaging of Multifunctional Nanoceramics. ChemNanoMat, 2018, 4, 361-372.	2.8	13
83	Enhanced antibacterial activity of size-controlled silver and polyethylene glycol functionalized silver nanoparticles. Chemical Papers, 2021, 75, 743-752.	2.2	13
84	Investigation of mesophase transitions in liquid crystals using inverse gas chromatography. Canadian Journal of Chemistry, 1995, 73, 1883-1892.	1.1	12
85	Control of mesostructure in self-assembled polymer/surfactant films by rational micelle design. Soft Matter, 2012, 8, 3357.	2.7	11
86	Adsorption of methylene blue onto size controlled magnetite nanoparticles. Materials Research Express, 2019, 6, 095511.	1.6	11
87	Polymer Sonochemistry: Controlling the Structure and Properties of Macromolecules. , 1999, , 321-343.		11
88	Use of gas chromatography to determine the degree of crosslinking of a polymer network. Macromolecules, 1989, 22, 3116-3119.	4.8	10
89	The application of ultrasound to the synthesis of poly(organosilanes). European Polymer Journal, 1996, 32, 1289-1295.	5.4	10
90	Polymerization of microemulsions to yield functionalised absorbent membranes. European Polymer Journal, 1997, 33, 599-605.	5.4	10

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91	Synthesis and modification of siliconâ€containing polymers using ultrasound. Polymer International, 2009, 58, 290-295.	3.1	10
92	Interaction parameters and miscibility limits of poly(dimethylsiloxane) and dinonyl phthalate or squalane determined from studies of the absorption of hexane by the binary liquid mixtures. Journal of the Chemical Society Faraday Transactions I, 1985, 81, 473.	1.0	9
93	Prediction of thermodynamic properties of polymer solutions using the UNIFAC group-contribution method. Polymer, 1987, 28, 2105-2109.	3.8	9
94	Prediction of retention in gasâ€"liquid chromatography using the unifac group contribution method. Journal of Chromatography A, 1989, 483, 1-19.	3.7	9
95	Encapsulation and release of aqueous components from sonochemically produced protein microspheres. Chemical Communications, 2012, 48, 9260.	4.1	9
96	A rapid method for the determination of Markâ€“Houwink constants from GPC and viscosity data on a single sample. Journal of Polymer Science Part A, 1989, 27, 2925-2935.	2.3	8
97	Prediction of compatibility in polymer-plasticizer systems. Polymer, 1990, 31, 1745-1749.	3.8	8
98	Inverse gas chromatography study of the thermodynamic behaviour of thermotropic low molar mass and polymeric liquid crystalsElectronic supplementary information (ESI) available: Partial molar enthalpies, excess enthalpies, entropies and excess entropies for hydrocarbon probes in liquid crystals. See http://www.rsc.org/suppdata/cp/b2/b202173k/. Physical Chemistry Chemical Physics, 2002, 4, 5307-5316.	2.8	8
99	Potassium selective acrylic copolymers: Synthesis and application to chemical sensors. Reactive and Functional Polymers, 2006, 66, 109-121.	4.1	8
100	Ultrasound promoted Wurtz coupling of alkyl bromides and dibromides. Ultrasonics Sonochemistry, 2012, 19, 5-8.	8.2	8
101	A computational simulation study on the acoustic pressure generated by a dental endosonic file: Effects of intensity, file shape and volume. Ultrasonics Sonochemistry, 2014, 21, 1858-1865.	8.2	8
102	Mixed solvents in gasâ€"liquid chromatography. Journal of Chromatography A, 1983, 262, 33-39.	3.7	7
103	Ziegler-Natta polymerization under high intensity ultrasound. Polymer, 1992, 33, 4423-4424.	3.8	7
104	Study of polymer liquid crystals by gas chromatography. Polymer, 1993, 34, 85-89.	3.8	7
105	Mixed Solvents in gas-liquid chromatography. Journal of Chromatography A, 1985, 324, 231-241.	3.7	6
106	Studies of Polymer Structure and Interactions by Automated Inverse Gas Chromatography. ACS Symposium Series, 1989, , 20-32.	0.5	6
107	A quartz crystal microbalance apparatus for studying interactions of solvents with thin polymer films. Progress in Organic Coatings, 1991, 19, 265-274.	3.9	6
108	Prediction of retention in gas-liquid chromatography using the UNIFAC group contribution method. Journal of Chromatography A, 1991, 585, 83-92.	3.7	6

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109	Sonochemical characterisation of ultrasonic dental descalers. Ultrasonics Sonochemistry, 2014, 21, 2052-2060.	8.2	6
110	Sonochemical production of nanoparticle metal oxides for potential use in dentistry. Ultrasonics Sonochemistry, 2017, 35, 646-654.	8.2	6
111	Vapour sorption studies of polymer-solution thermodynamics using a piezoelectric quartz crystal microbalance. Polymer International, 2006, 55, 816-824.	3.1	5
112	Deposition of Poly(ethyleneimine)/Poly(2-ethyl-2-oxazoline) Based Comb-Branched Polymers onto Polypropylene Nonwoven Fabric Using the Layer-by-Layer Technique. Selected Properties of the Modified Materials. Journal of Adhesion Science and Technology, 2011, 25, 1481-1495.	2.6	5
113	Biomimetic polyorganosiloxanes: model compounds for new materials. Dalton Transactions, 2014, 43, 7734-7746.	3.3	5
114	Sonochemical production and activation of responsive polymer microspheres. Ultrasonics Sonochemistry, 2019, 56, 397-409.	8.2	5
115	In vitro sustained release of gallic acid from the size-controlled PEGylated magnetite nanoparticles. Chemical Papers, 2021, 75, 5339-5352.	2.2	5
116	Membrane extraction with styrene-maleic acid copolymer results in insulin receptor autophosphorylation in the absence of ligand. Scientific Reports, 2022, 12, 3532.	3.3	5
117	Mixed solvents in gas-liquid chromatography. Journal of Chromatography A, 1982, 238, 89-95.	3.7	4
118	Viscometric measurement of the thermodynamic properties of dilute polystyrene solutions. Polymer, 1992, 33, 2224-2226.	3.8	4
119	Shear strength at Sisal fibreâ€“polyester resin interfaces: use of inverse gas chromatography to study pretreatment effects. Composite Interfaces, 2007, 14, 21-31.	2.3	4
120	Structural characterisation of trimethylsilyl-protected DNA bases. Supramolecular Chemistry, 2008, 20, 697-707.	1.2	4
121	Preparation of gold nanoparticles in polystyreneâ€“PEO block copolymers: the role of ultrasound. Journal of Polymer Research, 2014, 21, 1.	2.4	4
122	Preparation, morphology and sonication time dependence of silver nanoparticles in amphiphilic block copolymers of PEO with polystyrene or PMMA. Journal of Polymer Research, 2017, 24, 1.	2.4	4
123	The interaction of styrene maleic acid copolymers with phospholipids in Langmuir monolayers, vesicles and nanodiscs; a structural study. Journal of Colloid and Interface Science, 2022, 625, 220-236.	9.4	4
124	Sonochemistry and sonoluminescence. Ultrasonics Sonochemistry, 1997, 4, 325-326.	8.2	3
125	Surface modification of poly(vinyl chloride) using high intensity ultrasound. Polymer International, 1999, 48, 1141-1146.	3.1	3
126	Comparison of the effects of gamma or sonochemical irradiation of carbon nanotubes and the influence on the mechanical and dielectric properties of chitosan nanocomposites. Ultrasonics Sonochemistry, 2019, 54, 241-249.	8.2	3

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127	Development of Methodology to Investigate the Surface SMALPome of Mammalian Cells. Frontiers in Molecular Biosciences, 2021, 8, 780033.	3.5	3
128	Fluorescent styrene maleic acid copolymers to facilitate membrane protein studies in lipid nanodiscs. Nanoscale, 2022, 14, 5689-5693.	5.6	3
129	Prediction of retention in gas-liquid chromatography using the UNIFAC group contribution method. Journal of Chromatography A, 1991, 586, 297-301.	3.7	2
130	Does cavitation occur around powered toothbrushes?. Journal of Clinical Periodontology, 2004, 31, 77-78.	4.9	2
131	Sonochemical cleaning efficiencies in dental instruments. AIP Conference Proceedings, 2012, , .	0.4	1
132	Computer aided assessment and feedback â€“ can we enhance studentsâ€™ early experience at University?. New Directions in the Teaching of Physical Sciences, 2016, , 29-34.	0.4	1
133	Effect of pH on the morphology of magnetite nanoparticles for adsorption of Cr(VI) ions from aqueous medium. Journal of Dispersion Science and Technology, 2023, 44, 1770-1777.	2.4	1
134	Sonochemistry and drug delivery. , 0, , .		1
135	Scanning laser vibrometry and luminol photomicrography to map cavitational activity around ultrasonic scalers. , 2008, , .		0
136	Thymine-functionalised siloxanes: Model compounds and polymers. Journal of Organometallic Chemistry, 2015, 778, 29-34.	1.8	0
137	The Structures of Uncommon Cationic Nâ€alkenyl Purine and Pyrimidine Bases. Journal of Heterocyclic Chemistry, 2016, 53, 64-68.	2.6	0
138	Using a VLE to enhance a Foundation Chemistry laboratory module. New Directions in the Teaching of Physical Sciences, 2016, , 35-40.	0.4	0
139	Ab initio reconstruction of small angle scattering data for membrane proteins in copolymer nanodiscs. BBA Advances, 2022, 2, 100033.	1.6	0