

# David Henry Solomon

## List of Publications by Year in descending order

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113  
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4,826  
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66  
g-index

117  
all docs

117  
docs citations

117  
times ranked

4723  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-healing polymeric materials: A review of recent developments. Progress in Polymer Science, 2008, 33, 479-522.	11.8	1,221
2	Some Aspects of the Properties and Degradation of Polyacrylamides. Chemical Reviews, 2002, 102, 3067-3084.	23.0	340
3	Selectivity of the reaction of free radicals with styrene. Macromolecules, 1982, 15, 909-914.	2.2	223
4	The chemistry of novolac resins: 3. <sup>13</sup> C and <sup>15</sup> N n.m.r. studies of curing with hexamethylenetetramine. Polymer, 1997, 38, 5835-5848.	1.8	116
5	A new method for investigating the mechanism of initiation of radical polymerization. Polymer Bulletin, 1979, 1, 529-534.	1.7	99
6	Fate of the initiator in the azobisisobutyronitrile-initiated polymerization of styrene. Macromolecules, 1984, 17, 1094-1099.	2.2	97
7	Structure of benzoyl peroxide initiated polystyrene: determination of the initiator-derived functionality by carbon-13 NMR. Macromolecules, 1982, 15, 1188-1191.	2.2	96
8	Degradation on polyacrylamides. Part I. Linear polyacrylamide. Polymer, 2003, 44, 1331-1337.	1.8	94
9	Genesis of the CSIRO polymer group and the discovery and significance of nitroxide-mediated living radical polymerization. Journal of Polymer Science Part A, 2005, 43, 5748-5764.	2.5	94
10	Australia's Plastic Banknotes: Fighting Counterfeit Currency. Angewandte Chemie - International Edition, 2010, 49, 3726-3736.	7.2	92
11	Studies on microgels, 3. Synthesis using living free radical polymerization. Macromolecular Rapid Communications, 1997, 18, 755-760.	2.0	90
12	Confirmation of the Mayo mechanism for the initiation of the thermal polymerization of styrene. Journal of the American Chemical Society, 1983, 105, 7761-7762.	6.6	84
13	Title is missing!. Die Makromolekulare Chemie Rapid Communications, 1984, 5, 793-798.	1.1	84
14	Quantitative studies on free radical reactions with the scavenger 1,1,3,3-tetramethylisoindolinyl-2-oxy. Tetrahedron Letters, 1982, 23, 1309-1312.	0.7	74
15	Absolute rate constants for radical-monomer reactions. Polymer Bulletin, 1992, 29, 647-652.	1.7	74
16	The philicity of tert-butoxy radicals. What factors are important in determining the rate and regioselectivity of tert-butoxy radical addition to olefins?. Journal of Organic Chemistry, 1989, 54, 1607-1611.	1.7	67
17	The reaction of acyl peroxides with 2,2,6,6-tetramethylpiperidiny-1-oxy. Tetrahedron Letters, 1981, 22, 1165-1168.	0.7	60
18	Controlling carbon microporosity: the structure of carbons obtained from different phenolic resin precursors. Carbon, 2002, 40, 743-749.	5.4	57

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19	Controlled Formation of Microheterogeneous Polymer Networks: Influence of Monomer Reactivity on Gel Structure. <i>Macromolecules</i> , 2001, 34, 6396-6401.	2.2	54
20	Living Radical Polymerization. , 2005, , 451-585.		53
21	On the Origins of Nitroxide Mediated Polymerization (NMP) and Reversible Addition-Fragmentation Chain Transfer (RAFT). <i>Australian Journal of Chemistry</i> , 2012, 65, 945.	0.5	50
22	4,6-Dimethyl-o-quinone Methide and 4,6-Dimethylbenzoxete. <i>Journal of Organic Chemistry</i> , 1998, 63, 9806-9811.	1.7	44
23	Measurements of Primary Radical Concentrations Generated by Pulsed Laser Photolysis Using Fluorescence Detection. <i>Journal of Physical Chemistry A</i> , 1999, 103, 6580-6586.	1.1	44
24	The chemistry of novolac resins V. Reactions of benzoxazine intermediates. <i>Polymer</i> , 1998, 39, 399-404.	1.8	42
25	Degradation on polyacrylamides. Part II. Polyacrylamide gels. <i>Polymer</i> , 2003, 44, 3817-3826.	1.8	41
26	The chemistry of novolac resins - VI. Reactions between benzoxazine intermediates and model phenols. <i>Polymer</i> , 1998, 39, 405-412.	1.8	39
27	End groups of poly(methyl methacrylate-co-styrene) prepared with tert-butoxy, methyl, and/or phenyl radical initiation: effects of solvent, monomer composition, and conversion. <i>Macromolecules</i> , 1988, 21, 1522-1528.	2.2	38
28	Monolayer Structure and Evaporation Resistance: A Molecular Dynamics Study of Octadecanol on Water. <i>Journal of Physical Chemistry B</i> , 2010, 114, 3869-3878.	1.2	36
29	Reactions of benzoyloxy radicals with some common vinyl monomers. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1982, 3, 533-536.	1.1	35
30	Thermal stability of poly(methyl methacrylate). <i>Polymer Bulletin</i> , 1988, 20, 499-503.	1.7	35
31	Further studies on the thermal decomposition of AIBN implications concerning the mechanism of termination in methacrylonitrile polymerization. <i>European Polymer Journal</i> , 1993, 29, 379-388.	2.6	35
32	Synthesis, Characterization, and Direct Observation of Star Microgels. <i>Macromolecules</i> , 2003, 36, 5650-5654.	2.2	35
33	Synthetic hydrogels 3. Solvent effects on poly(2-hydroxyethyl methacrylate) networks. <i>Polymer</i> , 2004, 45, 4017-4027.	1.8	34
34	Weak links in polystyrene thermal degradation of polymers prepared with AIBN or benzoyl peroxide as initiator. <i>European Polymer Journal</i> , 1989, 25, 767-777.	2.6	33
35	Chemistry of novolac resins. II. Reaction of model phenols with hexamethylenetetramine. <i>Journal of Polymer Science Part A</i> , 1997, 35, 1389-1398.	2.5	33
36	Graft copolymerisation studies Part 1. Models related to polyolefins. <i>Polymer</i> , 2000, 41, 3137-3145.	1.8	33

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37	Determination of molecular weight distributions of novolac resins by gel permeation chromatography. <i>Journal of Polymer Science Part A</i> , 1997, 35, 1399-1407.	2.5	32
38	Evaluation of propagation rate constants for the free radical polymerization of methacrylonitrile by pulsed laser photolysis. <i>Macromolecular Rapid Communications</i> , 1995, 16, 837-844.	2.0	31
39	Synthetic hydrogels 2. Polymerization induced phase separation in acrylamide systems. <i>Polymer</i> , 2003, 44, 7335-7344.	1.8	28
40	Effect of ?glutaraldehyde? functionality on network formation in poly(vinyl alcohol) membranes. <i>Journal of Applied Polymer Science</i> , 2005, 96, 780-792.	1.3	28
41	Kinetic data for coupling of primary alkyl radicals with a stable nitroxide. <i>Journal of the Chemical Society Chemical Communications</i> , 1986, , 1003.	2.0	27
42	Initiation. The reactions of primary radicals. <i>Makromolekulare Chemie Macromolecular Symposia</i> , 1987, 10-11, 109-125.	0.6	27
43	An alternative pathway for the hydrolysis of epoxy ester compounds. <i>Polymer</i> , 2006, 47, 8247-8252.	1.8	25
44	Synthetic hydrogels. 1. Effects of solvent on poly(acrylamide) networks. <i>Polymer</i> , 2003, 44, 6195-6203.	1.8	24
45	Interpenetrating Amphiphilic Polymer Networks of Poly(2-hydroxyethyl methacrylate) and Poly(ethylene oxide). <i>Chemistry of Materials</i> , 2004, 16, 5650-5658.	3.2	24
46	The detection of preferred conformations in oligomers of methyl methacrylate in solution by <sup>1</sup> H n.m.r. 2D-correlation spectroscopy. <i>Journal of the Chemical Society Chemical Communications</i> , 1985, , 1355.	2.0	23
47	Molecular Mechanism of Stabilization of Thin Films for Improved Water Evaporation Protection. <i>Langmuir</i> , 2013, 29, 14451-14459.	1.6	23
48	The chemistry of novolac resins. Part 4. The strategic synthesis of model compounds. <i>Tetrahedron</i> , 1997, 53, 13915-13932.	1.0	22
49	Initiator efficiency in ATRP: the tosyl chloride/CuBr/PMDETA system. <i>Polymer</i> , 2005, 46, 2097-2104.	1.8	22
50	Admicellar polymerization of styrene with divinyl benzene on alumina particles: the synthesis of white reinforcing fillers. <i>Journal of Materials Science</i> , 2006, 41, 7474-7482.	1.7	22
51	Azo and Peroxy Initiators. , 1989, , 97-121.		21
52	Chain Length Dependence of Radical~Radical Termination in Free Radical Polymerization:~ A Pulsed Laser Photolysis Investigation. <i>Macromolecules</i> , 2003, 36, 2032-2040.	2.2	21
53	Identification of end groups in polymers by a spin-echo NMR technique. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1983, 4, 29-32.	1.1	20
54	Comparison of initiation mechanisms for polymerization initiated by primary, secondary and tertiary alkoxy radicals. <i>European Polymer Journal</i> , 1993, 29, 397-400.	2.6	20

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55	Studies on microgels, 1. Microgel formation studied by gel-permeation chromatography with an on-line light scattering detector. <i>Macromolecular Chemistry and Physics</i> , 1994, 195, 2477-2489.	1.1	20
56	Reaction of tert-butoxyl radicals with electron-rich $\hat{1}\pm$ -methylvinyl monomers. <i>Die Makromolekulare Chemie</i> , 1984, 185, 1809-1817.	1.1	19
57	Thermal stability of benzoyl peroxide-initiated polystyrene. <i>Macromolecules</i> , 1988, 21, 855-857.	2.2	19
58	Initiation mechanisms in radical polymerization: reaction of isopropoxyl radicals with methyl methacrylate. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1991, , 1351.	0.9	19
59	Direct Measurement of Primary Radical Concentrations in Pulsed Laser Photolysis. <i>Macromolecules</i> , 1997, 30, 7627-7630.	2.2	19
60	The chemistry of novolac resins: Part 8. Reactions of para-hydroxybenzylamines with model phenols. <i>Polymer</i> , 1998, 39, 1967-1975.	1.8	19
61	Reactions of hydroxyl radicals with polymerizable olefins. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1985, , 379.	0.9	18
62	Characterization of the pore structure of aqueous three-dimensional polyacrylamide gels with a novel cross-linker. <i>Electrophoresis</i> , 2000, 21, 3843-3850.	1.3	18
63	The effect of acrylamide-co-vinylpyrrolidinone copolymer on the depression of talc in mixed nickel mineral flotation. <i>Minerals Engineering</i> , 2011, 24, 449-454.	1.8	18
64	Graft copolymerization studies. III. Methyl methacrylate onto polypropylene and polyethylene terephthalate. <i>Journal of Applied Polymer Science</i> , 2002, 83, 898-915.	1.3	17
65	Rational design of monolayers for improved water evaporation mitigation. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 415, 47-58.	2.3	17
66	Reaction of Acyclic Hydrocarbons Towards t-Butoxy Radicals. A Study of Hydrogen Atom Abstraction by Using the Radical Trapping Technique. <i>Australian Journal of Chemistry</i> , 1998, 51, 1113.	0.5	17
67	The reaction of furfuryl alcohol resins with hexamethylenetetramine: A13C and15N high-resolution solid-state NMR study. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1997, 35, 2233-2243.	2.4	16
68	Cyanoisopropyl radical induced cyclization and cyclopolymerization of N-methyl-N-(2-alkylallyl)amines and N-methyl-NN-bis-(2-alkylallyl)amines. A 13C nuclear magnetic resonance study. <i>Journal of the Chemical Society Chemical Communications</i> , 1975, , 982.	2.0	15
69	Effects of solvent on model copolymerization reactions. A 13C-NMR study. <i>European Polymer Journal</i> , 1992, 28, 275-282.	2.6	15
70	Chemistry of novolac resins. X. Polymerization studies of HMTA and strategically synthesized model compounds. <i>Journal of Polymer Science Part A</i> , 1999, 37, 1347-1355.	2.5	15
71	Reaction of t-butoxy radicals with norbornadiene. <i>Tetrahedron Letters</i> , 1985, 26, 5081-5084.	0.7	14
72	The chemistry of novolac resins: Part 7. Reactions of para-hydroxybenzylamine intermediates. <i>Polymer</i> , 1998, 39, 1957-1966.	1.8	14

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73	Recent developments in free-radical polymerization – a mini review. <i>Progress in Organic Coatings</i> , 1992, 21, 227-254.	1.9	13
74	Approaches to the controlled formation of network polymers. <i>Polymer</i> , 1998, 39, 5781-5787.	1.8	12
75	Autophobicity-Driven Surface Segregation and Patterning of Core-Shell Microgel Nanoparticles. <i>Nano Letters</i> , 2008, 8, 3010-3016.	4.5	12
76	Comb polymers: Are they the answer to monolayer stability?. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 384, 482-489.	2.3	12
77	Molecular Interactions behind the Synergistic Effect in Mixed Monolayers of 1-Octadecanol and Ethylene Glycol Monooctadecyl Ether. <i>Journal of Physical Chemistry B</i> , 2013, 117, 3603-3612.	1.2	12
78	Initiation mechanisms in radical polymerization: reaction of t-butoxy radicals with allyl acrylate and with diallyl ether. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1988, , 485.	0.9	11
79	Investigations into the free radical polymerizations of allyl carbonates. The reaction of t-butoxyl radical. <i>European Polymer Journal</i> , 1995, 31, 809-818.	2.6	11
80	Determination of Thermal Diffusion Coefficients for Polydisperse Polymers and Microgels by ThFFF and SEC-MALLS. <i>Macromolecules</i> , 1998, 31, 7003-7009.	2.2	11
81	Poly(vinyl alcohol) hydrogels: Their synthesis and steps towards control of electroendosmosis. <i>Electrophoresis</i> , 2003, 24, 12-19.	1.3	11
82	Dewetting of Star Nanogel/Homopolymer Blends from an Immiscible Homopolymer Substrate. <i>Macromolecules</i> , 2004, 37, 7857-7860.	2.2	11
83	Slow nitrogen inversion – N-O rotation in 2-alkoxy-1,1,3,3-tetramethylisoindolines. <i>Journal of the Chemical Society Chemical Communications</i> , 1985, , 1249-1250.	2.0	10
84	The mechanism of precipitation of calcium L(+)-tartrate in a model wine solution. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1994, 82, 225-235.	2.3	10
85	2-(t-Butylazo)prop-2-yl hydroperoxide: a convenient source of hydroxyl radicals in organic media. <i>Journal of the Chemical Society Chemical Communications</i> , 1984, , 867.	2.0	9
86	Strategic synthesis of model novolac resins. <i>Tetrahedron Letters</i> , 1994, 35, 4627-4630.	0.7	9
87	3,5-Dimethylphenol resole resins: their structure and mechanism of thermal decomposition leading to graphitisation. <i>Polymer</i> , 2001, 42, 7523-7529.	1.8	9
88	Novel cross-linked homogeneous polyacrylamide gels with improved separation properties: Investigation of the cross-linker functionality. <i>Electrophoresis</i> , 2001, 22, 4303-4310.	1.3	9
89	Effect of ethyl aluminium sesquichloride on the specificity of the reactions of 1-methyl-1-methoxycarbonyl ethyl radical. <i>Polymer Bulletin</i> , 1992, 27, 425-428.	1.7	8
90	Functionality in phenol-formaldehyde step-growth polymerization. <i>Polymer</i> , 1997, 38, 4229-4232.	1.8	8

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91	The Synthesis of Novel Hybrid Monomers. Australian Journal of Chemistry, 1998, 51, 31.	0.5	8
92	Complexes of Benzene-1,2-diol Mannich Bases. II. Novel Aluminium(III) Complexes. Australian Journal of Chemistry, 2001, 54, 383.	0.5	8
93	Title is missing!. Australian Journal of Chemistry, 2001, 54, 375.	0.5	8
94	Studies on microgels: 2. Analysis of the reaction between $\hat{\epsilon}$ living $\hat{\epsilon}$ ™ poly(4-t-butylstyrene) and dimethacrylates by size exclusion chromatography coupled with d.r.i., u.v. and m.a.l.l.s. detectors. Polymer, 1996, 37, 2459-2464.	1.8	7
95	Graft copolymerization studies Part II. Models related to polyethylene terephthalate. Polymer, 2000, 41, 3523-3529.	1.8	7
96	Formation of Dynamic Duolayer Systems at the Air/Water Interface by using Non-ionic Hydrophilic Polymers. Australian Journal of Chemistry, 2013, 66, 807.	0.5	7
97	On the mechanism of background silver staining during sodium dodecyl sulphate-polyacrylamide gel electrophoresis. Electrophoresis, 1999, 20, 2039-2045.	1.3	6
98	From well defined star-microgels to highly ordered honeycomb films. Journal of Materials Chemistry, 2005, , .	6.7	6
99	Novel cross-linked polyacrylamide matrices: An investigation using gradient gel electrophoresis. Electrophoresis, 2001, 22, 4297-4302.	1.3	5
100	Dynamic Performance of Duolayers at the Air/Water Interface. 2. Mechanistic Insights from All-Atom Simulations. Journal of Physical Chemistry B, 2014, 118, 10927-10933.	1.2	5
101	Studies on polyimides: Part 3. Interactions between hexamethylenetetramine and models for polyimides and novolacs. Polymer, 1999, 40, 3041-3050.	1.8	4
102	Synthesis, Characterization, and Modelling of Novel Multifunctional Acryloyl-Based Monomers: An Experimental and Computational Study. Australian Journal of Chemistry, 2002, 55, 675.	0.5	4
103	Dynamic Performance of Duolayers at the Air/Water Interface. 1. Experimental Analysis. Journal of Physical Chemistry B, 2014, 118, 10919-10926.	1.2	4
104	Investigations into free radical polymerizations of allyl carbonates $\hat{\epsilon}$ ™II. An mndo study of hydrogen atom abstraction by hydroxyl radical. European Polymer Journal, 1996, 32, 85-89.	2.6	3
105	Australia's Bicentennial \$10 Note. Interdisciplinary Science Reviews, 1989, 14, 399-402.	1.0	2
106	Control of reactivity of novolac resins: the use of 3,4-dihydro-2 H -pyran as a labile protecting group. Polymer, 2001, 42, 6339-6345.	1.8	2
107	Duolayers at the Air/Water Interface: Improved Lifetime through Ionic Interactions. Journal of Physical Chemistry B, 2016, 120, 7401-7407.	1.2	2
108	Polymerization-induced phase separations in branched poly(methyl methacrylate) synthesis. Journal of Applied Polymer Science, 2005, 98, 1462-1468.	1.3	1

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109	Controlling Polymerization. , 2005, , 413-449.		1
110	Propagation. , 2005, , 167-232.		1
111	Recent Developments in Free Radical Polymerization. , 1992, , 13-25.		1
112	Theories in polymer science â€•helpful or inhibiting?. Makromolekulare Chemie Macromolecular Symposia, 1992, 53, 1-11.	0.6	0
113	Radical-Induced Decomposition of Dimethyl- <i>N</i> -(2-Cyano-2-Propyl)Ketenimine. Journal of Macromolecular Science - Pure and Applied Chemistry, 1994, 31, 329-337.	1.2	0