

# Stephen W Bigger

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

116  
papers

3,120  
citations

25  
h-index

53  
g-index

121  
ext. papers

3,439  
ext. citations

4  
avg, IF

5.28  
L-index

#	Paper	IF	Citations
116	Effects of surface photocrosslinking on the properties of semi-refined carrageenan film. <i>Food Hydrocolloids</i> , <b>2021</b> , 111, 106196	10.6	1
115	Reinforcement of Refined and Semi-Refined Carrageenan Film with Nanocellulose. <i>Polymers</i> , <b>2020</b> , 12,	4.5	14
114	Optical, structural, mechanical and thermal characterization of antioxidant ethylene vinyl alcohol copolymer films containing betalain-rich beetroot. <i>Food Packaging and Shelf Life</i> , <b>2020</b> , 24, 100502	8.2	12
113	Improving the moisture barrier and mechanical properties of semi-refined carrageenan films. <i>Journal of Applied Polymer Science</i> , <b>2020</b> , 137, 49238	2.9	5
112	A Review of Property Enhancement Techniques for Carrageenan-based Films and Coatings. <i>Carbohydrate Polymers</i> , <b>2019</b> , 216, 287-302	10.3	65
111	Effect of supercritical CO <sub>2</sub> and olive leaf extract on the structural, thermal and mechanical properties of an impregnated food packaging film. <i>Journal of Supercritical Fluids</i> , <b>2019</b> , 145, 181-191	4.2	11
110	University-led STEM outreach programs: purposes, impacts, stakeholder needs and institutional support at nine Australian universities. <i>Studies in Higher Education</i> , <b>2018</b> , 43, 586-599	2.6	11
109	The influence of chemically treated natural fibers in poly(lactic acid) composites containing thymol. <i>Polymer Composites</i> , <b>2018</b> , 39, 1261-1272	3	10
108	Optimisation of Cyclodextrin inclusion complexes with natural antimicrobial agents: thymol, carvacrol and linalool. <i>Journal of Microencapsulation</i> , <b>2018</b> , 35, 26-35	3.4	20
107	Melt Stability of Starch-Filled LDPE during Multi-Pass Extrusion Determined by Melt-Flow and Non-Isothermal Thermogravimetric Investigations. <i>ACS Symposium Series</i> , <b>2018</b> , 115-136	0.4	
106	Characterization of Semi-refined Carrageenan-Based Film for Primary Food Packaging Purposes. <i>Journal of Polymers and the Environment</i> , <b>2018</b> , 26, 3754-3761	4.5	13
105	Towards a quantitative indicator of feather disruption following the cleansing of oiled birds. <i>Marine Pollution Bulletin</i> , <b>2017</b> , 120, 268-273	6.7	2
104	Effect of Poly(Lactic Acid)/Kenaf Composites Incorporated with Thymol on the Antimicrobial Activity of Processed Meat. <i>Journal of Food Processing and Preservation</i> , <b>2017</b> , 41, e13145	2.1	10
103	Development and characterisation of HPMC films containing PLA nanoparticles loaded with green tea extract for food packaging applications. <i>Carbohydrate Polymers</i> , <b>2017</b> , 156, 108-117	10.3	78
102	Universities Conducting STEM Outreach: a Conceptual Framework. <i>Higher Education Quarterly</i> , <b>2016</b> , 70, 419-448	1.3	10
101	Interaction and quantification of thymol in active PLA-based materials containing natural fibers. <i>Journal of Applied Polymer Science</i> , <b>2016</b> , 133, n/a-n/a	2.9	21
100	Release of thymol from poly(lactic acid)-based antimicrobial films containing kenaf fibres as natural filler. <i>LWT - Food Science and Technology</i> , <b>2016</b> , 66, 629-637	5.4	35

99	FlashPhotol: Using a Flash Photolysis Apparatus Simulator To Introduce Students to the Kinetics of Transient Species and Fast Reactions. <i>Journal of Chemical Education</i> , <b>2016</b> , 93, 1475-1477	2.4	1
98	A Framework for Food Traceability Information Extraction Based on a Video Surveillance System. <i>Procedia Computer Science</i> , <b>2015</b> , 55, 1285-1292	1.6	4
97	Two novel algorithms for the thermogravimetric assessment of polymer degradation under non-isothermal conditions. <i>Polymer Testing</i> , <b>2015</b> , 43, 139-146	4.5	8
96	Novel theoretical and computer-assisted modeling of isothermal and non-isothermal depolymerization kinetics. <i>Polymer Testing</i> , <b>2015</b> , 44, 1-7	4.5	5
95	Antioxidant and antimicrobial properties of ethylene vinyl alcohol copolymer films based on the release of oregano essential oil and green tea extract components. <i>Journal of Food Engineering</i> , <b>2015</b> , 149, 9-16	6	90
94	Review of Mechanical Properties, Migration, and Potential Applications in Active Food Packaging Systems Containing Nanoclays and Nanosilver. <i>Comprehensive Reviews in Food Science and Food Safety</i> , <b>2015</b> , 14, 411-430	16.4	89
93	3D Model-Based Food Traceability Information Extraction Framework. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 112-119	0.9	1
92	Effect of kenaf fibre loading and thymol concentration on the mechanical and thermal properties of PLA/kenaf/thymol composites. <i>Industrial Crops and Products</i> , <b>2014</b> , 61, 74-83	5.9	96
91	Comparative Study of Bond Strength of Formaldehyde and Soya based Adhesive in Wood Fibre Plywood <b>2014</b> , 6, 2-9		17
90	FluSpec: A Simulated Experiment in Fluorescence Spectroscopy. <i>Journal of Chemical Education</i> , <b>2014</b> , 91, 1081-1083	2.4	3
89	Evaluation of Antifungal Activity of Antimicrobial Agents on Cheddar Cheese. <i>Packaging Technology and Science</i> , <b>2014</b> , 27, 49-58	2.3	18
88	Physico-Mechanical Properties of Starch-Based Films Containing Naturally Derived Antimicrobial Agents. <i>Packaging Technology and Science</i> , <b>2014</b> , 27, 149-159	2.3	26
87	A review of poly(lactic acid)-based materials for antimicrobial packaging. <i>Journal of Food Science</i> , <b>2014</b> , 79, R1477-90	3.4	161
86	Water sorption and physicomechanical properties of corn starch-based films. <i>Journal of Applied Polymer Science</i> , <b>2013</b> , 128, 530-536	2.9	10
85	Migration of antimicrobial agents from starch-based films into a food simulant. <i>LWT - Food Science and Technology</i> , <b>2013</b> , 50, 432-438	5.4	77
84	FluAnisot: A Simulated Experiment in Fluorescence Anisotropy Measurement. <i>Journal of Chemical Education</i> , <b>2013</b> , 90, 386-387	2.4	1
83	Mathematical Model for Sequential Pickup of Chemical Contaminants by Magnetic Particles. <i>Journal of Environmental Engineering, ASCE</i> , <b>2013</b> , 139, 796-802	2	1
82	Diffusion of linalool and methylchavicol from polyethylene-based antimicrobial packaging films. <i>LWT - Food Science and Technology</i> , <b>2011</b> , 44, 1888-1893	5.4	63

81	Antimicrobial activity of biodegradable polysaccharide and protein-based films containing active agents. <i>Journal of Food Science</i> , <b>2011</b> , 76, R90-R102	3-4	74
80	Antimicrobial activity of natural agents coated on starch-based films against <i>Staphylococcus aureus</i> . <i>Journal of Food Science</i> , <b>2011</b> , 76, M531-7	3-4	23
79	Essential oils and their principal constituents as antimicrobial agents for synthetic packaging films. <i>Journal of Food Science</i> , <b>2011</b> , 76, R164-77	3-4	124
78	Degradation of polyamide reverse osmosis membranes in the presence of chloramine. <i>Desalination</i> , <b>2011</b> , 283, 58-63	10-3	33
77	Antimicrobial Activity of Natural Agents against <i>Saccharomyces cerevisiae</i> . <i>Packaging Technology and Science</i> , <b>2011</b> , 24, 299-307	2-3	16
76	ChemKinetics: Fundamental Chemical Kinetics Principles and Analysis by Computer Simulation. <i>Journal of Chemical Education</i> , <b>2011</b> , 88, 244-244	2-4	3
75	Loss of AM additives from antimicrobial films during storage. <i>Journal of Food Engineering</i> , <b>2011</b> , 105, 270-276	6	50
74	Non-isothermal depolymerisation kinetics of poly(ethylene oxide). <i>Polymer Degradation and Stability</i> , <b>2011</b> , 96, 1497-1502	4-7	5
73	Release of naturally derived antimicrobial agents from LDPE films. <i>Journal of Food Science</i> , <b>2010</b> , 75, E126-33	3-4	42
72	Mathematical Model for the Sequestering of Chemical Contaminants by Magnetic Particles. <i>Journal of Environmental Engineering, ASCE</i> , <b>2010</b> , 136, 1255-1259	2	2
71	Effect of Metallocene-Catalyzed Polyethylene on the Physicomechanical Properties of Blends with High-Density Polyethylene or Low-Density Polyethylene. <i>Polymer-Plastics Technology and Engineering</i> , <b>2009</b> , 48, 272-279		8
70	Efficacy of polyethylene-based antimicrobial films containing principal constituents of basil. <i>LWT - Food Science and Technology</i> , <b>2008</b> , 41, 779-788	5-4	83
69	Colour changes in pigmented Nylon-6 systems containing copper iodide. <i>Polymer Degradation and Stability</i> , <b>2008</b> , 93, 1711-1714	4-7	3
68	An investigation into the removal of oil from rock utilising magnetic particle technology. <i>Marine Pollution Bulletin</i> , <b>2007</b> , 54, 1958-61	6-7	4
67	Magnetic particle technology in environmental remediation and wildlife rehabilitation. <i>The Environmentalist</i> , <b>2007</b> , 27, 175-182		10
66	Magnetic cleansing of weathered/tarry oiled feathers--the role of pre-conditioners. <i>Marine Pollution Bulletin</i> , <b>2006</b> , 52, 1591-4	6-7	5
65	Achievement of 100% Removal of Oil from Feathers Employing Magnetic Particle Technology. <i>Journal of Environmental Engineering, ASCE</i> , <b>2006</b> , 132, 555-559	2	12
64	The Effect of Metallocene-Catalyzed Polyethylene on the Physicomechanical Properties of Film Blends with Conventional Linear Low-Density Polyethylene. <i>Journal of Plastic Film and Sheeting</i> , <b>2006</b> , 22, 121-132	2-4	5

63	Characterization of antimicrobial films containing basil extracts. <i>Packaging Technology and Science</i> , <b>2006</b> , 19, 259-268	2.3	51
62	Removal of petroleum tar from bird feathers utilizing magnetic particles. <i>Environmental Chemistry Letters</i> , <b>2006</b> , 4, 111-113	13.3	5
61	Acute temperature dependency in the cleansing of tarry feathers utilizing magnetic particles. <i>Environmental Chemistry Letters</i> , <b>2005</b> , 3, 25-27	13.3	7
60	The Effect of Downgauging on the Physicomechanical Properties of Film Blends of Linear Low-density Polyethylene with Low-density Polyethylene. <i>Journal of Elastomers and Plastics</i> , <b>2005</b> , 37, 229-246	1.6	4
59	Whole-bird models for the magnetic cleansing of oiled feathers. <i>Marine Pollution Bulletin</i> , <b>2004</b> , 48, 336-407		13
58	Application of chemiluminescence to probe miscibility in metallocene-catalyzed polyethylene blends. <i>Journal of Applied Polymer Science</i> , <b>2003</b> , 89, 3006-3015	2.9	2
57	Active Packaging Technologies with an Emphasis on Antimicrobial Packaging and its Applications. <i>Journal of Food Science</i> , <b>2003</b> , 68, 408-420	3.4	629
56	Antimicrobial properties of basil and its possible application in food packaging. <i>Journal of Agricultural and Food Chemistry</i> , <b>2003</b> , 51, 3197-207	5.7	236
55	A Fluorometric Approach to Studying the Effects of Ionic Strength on Reaction Rates: An Undergraduate Steady-State Fluorescence Laboratory Experiment. <i>Journal of Chemical Education</i> , <b>2003</b> , 80, 1191	2.4	9
54	Quantitative analysis of polyethylene blends by Fourier transform infrared spectroscopy. <i>Applied Spectroscopy</i> , <b>2003</b> , 57, 928-32	3.1	9
53	Method Dependency in the Measurement of BTEX Levels in Contaminated Soil. <i>Journal of Soils and Sediments</i> , <b>2002</b> , 2, 137-142	3.4	10
52	A new approach to quantitatively assessing the effects of polymer additives. <i>Polymer</i> , <b>2002</b> , 43, 4611-4618	3.9	7
51	A Comparison between Field and Laboratory Methods for Measuring Volatile Organic Contaminants in Soil. <i>Journal of the Japan Petroleum Institute</i> , <b>2002</b> , 45, 271-278	1	
50	REVIEW OF ZEOLITES AS DEODORANTS FOR POLYETHYLENE RESINS USED IN FOOD PACKAGING APPLICATIONS. <i>Polymer-Plastics Technology and Engineering</i> , <b>2002</b> , 41, 795-818		5
49	Evaluation of the oxidative stability of multiextruded polypropylene as assessed by physicomechanical testing and simultaneous differential scanning calorimetry/chemiluminescence. <i>Journal of Applied Polymer Science</i> , <b>2001</b> , 79, 733-741	2.9	27
48	The second time derivative analysis of chemiluminescence emission profiles and its application to the accurate determination of oxidative induction times. <i>Journal of Applied Polymer Science</i> , <b>2001</b> , 79, 1986-1993	2.9	5
47	Studying Synthetic Polymers in the Undergraduate Chemistry Curriculum. A Review of the Educational Literature. <i>Journal of Chemical Education</i> , <b>2001</b> , 78, 555	2.4	22
46	Spec UV-Vis: An Ultraviolet-Visible Spectrophotometer Simulation. <i>Journal of Chemical Education</i> , <b>2001</b> , 78, 1560	2.4	1

45	Identifying Deficiencies in the Environmental Chemistry Educational Literature. <i>Journal of Chemical Education</i> , <b>2001</b> , 78, 1693	2.4	4
44	Extraction of Hydrocarbons from Clay Soils by Sonication and Soxhlet Techniques.. <i>Sekiyu Gakkaishi (Journal of the Japan Petroleum Institute)</i> , <b>2001</b> , 44, 378-383		8
43	Quinine fluorescence quenching at low ionic strength. <i>International Journal of Chemical Kinetics</i> , <b>2000</b> , 32, 473-477	1.4	6
42	The effect of carbon black on the oxidative induction time of medium-density polyethylene. <i>Polymer</i> , <b>2000</b> , 41, 9123-9130	3.9	20
41	Studying Thermally Induced Chemical and Physical Transformations in Common Synthetic Polymers: A Laboratory Project. <i>Journal of Chemical Education</i> , <b>2000</b> , 77, 745	2.4	2
40	Use of a Dynamic Headspace GC-MS Method for the Study of Volatile Organic Compounds in Polyethylene Packaging. An Undergraduate Experiment in Polymer Analysis. <i>Journal of Chemical Education</i> , <b>2000</b> , 77, 1631	2.4	10
39	REVIEW OF VOLATILE ORGANIC COMPOUNDS DERIVED FROM POLYETHYLENE. <i>Polymer-Plastics Technology and Engineering</i> , <b>2000</b> , 39, 845-874		15
38	Cleansing Oiled Feathers [Magnetically]. <i>Marine Pollution Bulletin</i> , <b>1999</b> , 38, 219-221	6.7	19
37	MacMS: A Mass Spectrometer Simulator: Abstract of Issue 9906M. <i>Journal of Chemical Education</i> , <b>1999</b> , 76, 1464	2.4	1
36	An investigation of the kinetics of cellulose degradation under non-isothermal conditions. <i>Polymer Degradation and Stability</i> , <b>1998</b> , 62, 33-40	4.7	23
35	Characterising the degradation of the polymer slip additive erucamide in the presence of inorganic antiblock agents. <i>Polymer Degradation and Stability</i> , <b>1998</b> , 62, 285-290	4.7	29
34	A Student Experiment in Non-Isothermal Chemical Kinetics. <i>Journal of Chemical Education</i> , <b>1998</b> , 75, 1150-1154	0.4	5
33	Toward an Optimized Dynamic Headspace Method for the Study of Volatiles in Low-Density Polyethylene. <i>Journal of Agricultural and Food Chemistry</i> , <b>1998</b> , 46, 1397-1405	5.7	16
32	Oil Spill Remediation Using Magnetic Particles: An Experiment in Environmental Technology. <i>Journal of Chemical Education</i> , <b>1997</b> , 74, 1446	2.4	68
31	Teaching appraisal in higher education: an Australian perspective. <i>Higher Education</i> , <b>1997</b> , 34, 459-482	3	24
30	Monte Carlo Approach to Generating the Probability-Distribution Function of a Classical Harmonic Oscillator. <i>Journal of Chemical Education</i> , <b>1996</b> , 73, 724	2.4	
29	The dependence of quinine fluorescence quenching on ionic strength. <i>International Journal of Chemical Kinetics</i> , <b>1996</b> , 28, 919-923	1.4	13
28	Characterization of oligomeric by-products produced during the high-pressure polymerization of ethylene. <i>European Polymer Journal</i> , <b>1996</b> , 32, 487-492	5.2	1

27	The dependence of quinine fluorescence quenching on ionic strength <b>1996</b> , 28, 919		1
26	A review of oxygen uptake techniques for measuring polyolefin oxidation. <i>Polymer Testing</i> , <b>1995</b> , 14, 211-241	4.5	34
25	SHELPAS a rapid means of student evaluation of lecturing performance in higher education. <i>Assessment and Evaluation in Higher Education</i> , <b>1995</b> , 20, 191-202	3.1	2
24	Simple Heat Flow Measurements: A Closer Look at Polystyrene Cup Calorimeters. <i>Journal of Chemical Education</i> , <b>1994</b> , 71, 793	2.4	3
23	Fluorescence anisotropy measurements in undergraduate teaching. <i>Journal of Chemical Education</i> , <b>1993</b> , 70, A234	2.4	6
22	Thermal and photooxidative studies of polyethylene. <i>Makromolekulare Chemie Macromolecular Symposia</i> , <b>1993</b> , 70-71, 445-452		
21	The application of simultaneous chemiluminescence and thermal analysis for studying the glass transition and oxidative stability of poly(N-vinyl-2-pyrrolidone). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>1993</b> , 31, 287-297	2.6	25
20	Illustration of the principles of fluorimetry. An apparatus and experiments specially designed for the teaching laboratory. <i>Journal of Chemical Education</i> , <b>1992</b> , 69, 675	2.4	17
19	Effect of chromium residues on the stability of gas-phase high-density polyethylene produced by supported catalysts. <i>Journal of Polymer Science Part A</i> , <b>1992</b> , 30, 1873-1889	2.5	15
18	Effect of light intensity on the photooxidation kinetics of high-density polyethylene. <i>Journal of Polymer Science Part A</i> , <b>1992</b> , 30, 2277-2280	2.5	9
17	Effect of selenium on the thermal oxidation and oxidative pyrolysis of high-density polyethylene. <i>Polymer Degradation and Stability</i> , <b>1992</b> , 38, 23-26	4.7	5
16	The kinetics of the reduction of methyl viologen and 9,10-anthraquinone-2-sulfonate by the benzopinacol anion. <i>International Journal of Chemical Kinetics</i> , <b>1992</b> , 24, 689-693	1.4	0
15	Temperature dependence of fluorescence from polymer-bound 2-(2'-hydroxyphenyl)-2H-benzotriazole photostabilizers. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>1991</b> , 55, 387-393	4.7	9
14	Comparative study of the structural, morphological and oxidative characteristics of high-density polyethylene and poly(ethylene oxide). <i>European Polymer Journal</i> , <b>1991</b> , 27, 1111-1120	5.2	9
13	Characterizing the solid-state thermal oxidation of poly(ethylene oxide) powder. <i>Polymer</i> , <b>1991</b> , 32, 2014-2019	4.9	9
12	Effect of thermal oxidation on the spherulitic morphology of high-density polyethylene. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>1991</b> , 29, 795-804	2.6	11
11	Effects of frequency, molecular weight and thermal oxidation on the dynamic mechanical response of poly(ethylene oxide). <i>Polymer International</i> , <b>1991</b> , 26, 181-186	3.3	21
10	Staining techniques for detecting localized oxidation in high density polyethylene powders and films. <i>Polymer International</i> , <b>1991</b> , 26, 187-193	3.3	11

9	Flash-photolysis study of the 4-(methyl sulphonate)-benzophenone ketyl radical anion in alcohol/water mixtures. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1990</b> , 86, 619-622		8
8	The effects of pigments on the photostability of polyethylene. <i>Journal of Materials Science</i> , <b>1989</b> , 24, 1946-1952	4.3	14
7	Efficiency of processing stabilizers using a micro-oxygen uptake technique. <i>Polymer</i> , <b>1989</b> , 30, 2080-2086.	6.9	10
6	The effect of hindered amine light stabilizers on the photooxidative stability of high-density polyethylene. <i>Journal of Polymer Science Part A</i> , <b>1989</b> , 27, 63-73	2.5	15
5	Effects of temperature and the partial pressure of oxygen on the rate of photooxidation of polyethylene. <i>Polymer</i> , <b>1988</b> , 29, 1277-1281	3.9	3
4	Electron transfer from the benzophenone ketyl radical anion to 9,10-anthraquinone-2-sulphonate and methylviologen in water/propan-2-ol mixtures. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>1988</b> , 44, 19-28	4.7	2
3	Photophysics of a sulfonated 2-hydroxyphenylbenzotriazole UV absorber in solution and in polymer substrates. <i>Journal of Polymer Science Part A</i> , <b>1987</b> , 25, 1619-1631	2.5	7
2	New approach to the measurement of polymer photooxidation. <i>Journal of Polymer Science Part A</i> , <b>1987</b> , 25, 3311-3323	2.5	25
1	Photophysics of 6-(2-hydroxy-4-methoxyphenyl)-s-triazine photostabilizers. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>1987</b> , 40, 391-399	4.7	10