Russell J Varley

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.

65 119 4,519 37 h-index g-index citations papers 4.8 5.76 123 5,115 avg, IF L-index ext. papers ext. citations

#	Paper	IF	Citations
119	Investigation of the processability, thermal, mechanical and flame retardant properties of bisoxazoline composites. <i>Composites Part B: Engineering</i> , 2022 , 232, 109629	10	O
118	Continuous, pilot-scale production of carbon fiber from a textile grade PAN polymer. <i>Materials Today Communications</i> , 2022 , 31, 103231	2.5	О
117	Enhancement of ionic conduction and mechanical properties for all-solid-state polymer electrolyte systems through ionic and physical bonding. <i>Materials Today Chemistry</i> , 2022 , 23, 100663	6.2	O
116	Fire-retardant unsaturated polyester thermosets: The state-of-the-art, challenges and opportunities. <i>Chemical Engineering Journal</i> , 2022 , 430, 132785	14.7	12
115	A 3D printable dynamic nanocellulose/nanochitin self-healing hydrogel and soft strain sensor. <i>Carbohydrate Polymers</i> , 2022 , 291, 119545	10.3	2
114	Carbon fiber polypropylene interphase modification as a route to improved toughness. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022 , 107001	8.4	1
113	Aromatic tetra-glycidyl ether versus tetra-glycidyl amine epoxy networks: Influence of monomer structure and epoxide conversion. <i>Polymer</i> , 2021 , 124401	3.9	1
112	Dynamic Nanohybrid-Polysaccharide Hydrogels for Soft Wearable Strain Sensing. <i>Sensors</i> , 2021 , 21,	3.8	6
111	Modelling and analysis of the energy intensity in polyacrylonitrile (PAN) precursor and carbon fibre manufacturing. <i>Journal of Cleaner Production</i> , 2021 , 303, 127105	10.3	7
110	The role of Irelaxations in determining the compressive properties of an epoxy amine network modified with POSS and mono-functional epoxy resins. <i>Polymer Testing</i> , 2021 , 93, 106873	4.5	3
109	Polyaryletherketone (PAEK) thermoplastic composites via in-situ ring opening polymerisation. <i>Composites Science and Technology</i> , 2021 , 201, 108534	8.6	3
108	Understanding the influence of key parameters on the stabilisation of cellulose-lignin composite fibres. <i>Cellulose</i> , 2021 , 28, 911-919	5.5	1
107	Effect of boric acid on the stabilisation of cellulose-lignin filaments as precursors for carbon fibres. <i>Cellulose</i> , 2021 , 28, 729-739	5.5	4
106	The role of Irelaxations in controlling compressive properties in hyperbranched polymer-modified epoxy networks. <i>Polymer Journal</i> , 2021 , 53, 393-401	2.7	3
105	A healable polyethylene adhesive using poly(ethylene methacrylic acid) (EMAA) for three-layer pipe coatings. <i>Multifunctional Materials</i> , 2021 , 4, 014001	5.2	
104	A modular LCA/LCC-modelling concept for evaluating material and process innovations in carbon fibre manufacturing. <i>Procedia CIRP</i> , 2021 , 98, 529-534	1.8	5
103	Study of the acoustic emission response to a core-shell rubber-toughened, high-temperature composite. <i>Journal of Materials Science</i> , 2021 , 56, 5609-5623	4.3	4

(2020-2021)

102	Investigation of the Dual Polymerization of Rapid Curing Organophosphorous Modified Epoxy/Amine Resins and Subsequent Flame Retardancy. <i>Macromolecular Chemistry and Physics</i> , 2021 , 222, 2000342	2.6	6
101	Carbon fibre waste recycling into hybrid nonwovens for electromagnetic interference shielding and sound absorption. <i>Journal of Cleaner Production</i> , 2021 , 315, 128196	10.3	7
100	Dynamic nanocellulose hydrogels: Recent advancements and future outlook. <i>Carbohydrate Polymers</i> , 2021 , 270, 118357	10.3	10
99	Rational Design of Mussel-Inspired Hydrogels with Dynamic Catecholato-Metal Coordination Bonds. <i>Macromolecular Rapid Communications</i> , 2020 , 41, e2000439	4.8	9
98	Rapid Cross-Linking of Epoxy Thermosets Induced by Solvate Ionic Liquids. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 2651-2657	4.3	5
97	New approaches to bonding thermoplastic and thermoset polymer composites. <i>Composites Part A:</i> Applied Science and Manufacturing, 2020 , 133, 105870	8.4	13
96	Synthesis of Tri-Aryl Methane Epoxy Resin Isomers and Their Cure with Aromatic Amines. <i>Macromolecular Materials and Engineering</i> , 2020 , 305, 1900546	3.9	3
95	Subtle variations in the structure of crosslinked epoxy networks and the impact upon mechanical and thermal properties. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 48874	2.9	5
94	Synthesis of tri-aryl ether epoxy resin isomers and their cure with diamino diphenyl sulphone. <i>Journal of Polymer Science</i> , 2020 , 58, 1410-1425	2.4	2
93	Dynamic plant-derived polysaccharide-based hydrogels. <i>Carbohydrate Polymers</i> , 2020 , 231, 115743	10.3	30
92	Synthesis of tri-aryl ketone amine isomers and their cure with epoxy resins. <i>Polymers for Advanced Technologies</i> , 2020 , 31, 827-837	3.2	2
91	Double dynamic cellulose nanocomposite hydrogels with environmentally adaptive self-healing and pH-tuning properties. <i>Cellulose</i> , 2020 , 27, 1407-1422	5.5	14
90	Water activated healing of thiolene boronic ester coatings. <i>Progress in Organic Coatings</i> , 2020 , 139, 105	428	2
89	Cellulose-lignin composite fibers as precursors for carbon fibers: Part 2 - The impact of precursor properties on carbon fibers. <i>Carbohydrate Polymers</i> , 2020 , 250, 116918	10.3	3
88	1D/2D Nanomaterials Synergistic, Compressible, and Response Rapidly 3D Graphene Aerogel for Piezoresistive Sensor. <i>Advanced Functional Materials</i> , 2020 , 30, 2003618	15.6	62
87	Synthesis of a phosphorus-silicone modifier imparting excellent flame retardancy and improved mechanical properties to a rapid cure epoxy. <i>Reactive and Functional Polymers</i> , 2020 , 157, 104743	4.6	7
86	Beyond the ring flip: A molecular signature of the glassflubber transition in tetrafunctional epoxy resins. <i>Polymer</i> , 2020 , 206, 122893	3.9	5
85	Experimental and simulation study of effect of thickness on performance of (butylene adipate-co-terephthalate) and poly lactide nanocomposites incorporated with graphene as stand-alone electromagnetic interference shielding and metal-backed microwave absorbers.	8.6	11

84	Effect of aromatic substitution on the kinetics and properties of epoxy cured tri-phenylether amines. <i>Journal of Applied Polymer Science</i> , 2019 , 136, 47383	2.9	9
83	Effect of aromatic substitution on the cure reaction and network properties of anhydride cured triphenyl ether tetraglycidyl epoxy resins. <i>Polymers for Advanced Technologies</i> , 2019 , 30, 1525-1537	3.2	2
82	Time Dependent Structure and Property Evolution in Fibres during Continuous Carbon Fibre Manufacturing. <i>Materials</i> , 2019 , 12,	3.5	20
81	Understanding the Effects of In-Service Temperature and Functional Fluid on the Ageing of Silicone Rubber. <i>Polymers</i> , 2019 , 11,	4.5	7
80	Recovery of Mode I self-healing interlaminar fracture toughness of fiber metal laminate by modified double cantilever beam test. <i>Composites Communications</i> , 2019 , 16, 25-29	6.7	16
79	Facile one pot synthesis of strong epoxy/agar hybrid hydrogels. <i>Journal of Polymer Research</i> , 2019 , 26, 1	2.7	2
78	Phosphorus-Based Amino Acid Mimetic for Enhanced Flame-Retardant Properties in an Epoxy Resin. <i>Australian Journal of Chemistry</i> , 2019 , 72, 226	1.2	2
77	Mechanical, Thermal, and Morphological Behavior of Silicone Rubber during Accelerated Aging. <i>Polymer-Plastics Technology and Engineering</i> , 2018 , 57, 1687-1696		35
76	Microwave Attenuation of Graphene Modified Thermoplastic Poly(Butylene adipateterephthalate) Nanocomposites. <i>Polymers</i> , 2018 , 10,	4.5	19
75	In Situ SAXS Measurement and Molecular Dynamics Simulation of Magnetic Alignment of Hexagonal LLC Nanostructures. <i>Membranes</i> , 2018 , 8,	3.8	2
74	Life Cycle Engineering of Carbon Fibres for Lightweight Structures. <i>Procedia CIRP</i> , 2018 , 69, 43-48	1.8	13
73	Manufacturing Techniques and Surface Engineering of Polymer Based Nanoparticles for Targeted Drug Delivery to Cancer. <i>Nanomaterials</i> , 2016 , 6,	5.4	103
72	Polymer Coatings for Oilfield Pipelines. Springer Series in Materials Science, 2016, 385-428	0.9	4
71	Poly(ethylene- co -methacrylic acid) (EMAA) as an efficient healing agent for high performance epoxy networks using diglycidyl ether of bisphenol A (DGEBA). <i>Polymer</i> , 2016 , 92, 153-163	3.9	19
70	Adhesives performance of 3-layer PE pipe coatings: Effects of MAH loading, PE particles size, coating interval time and service temperature. <i>Progress in Organic Coatings</i> , 2016 , 99, 157-165	4.8	3
69	Solid-state healing of resins and composites 2015 , 53-99		2
68	An efficient healing agent for high temperature epoxy composites based upon tetra-glycidyl diamino diphenyl methane. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015 , 78, 201-210	8.4	8
67	Epoxy/Poly(ethylene-co-methacrylic acid) Blends as Thermally Activated Healing Agents in an Epoxy/Amine Network. <i>Macromolecular Materials and Engineering</i> , 2015 , 300, 70-79	3.9	13

(2012-2015)

66	Effect of modification of cyclic butylene terephthalate on crystallinity and properties after ring-opening polymerisation. <i>Journal of Materials Science</i> , 2015 , 50, 8073-8088	4.3	7
65	Synthesis and characterisation of new sulphur-containing epoxy networks. <i>High Performance Polymers</i> , 2014 , 26, 420-435	1.6	7
64	Mechanical properties of mendable composites containing self-healing thermoplastic agents. <i>Composites Part A: Applied Science and Manufacturing</i> , 2014 , 65, 10-18	8.4	37
63	Low-molecular-weight thermoplastic modifiers as effective healing agents in mendable epoxy networks. <i>Journal of Intelligent Material Systems and Structures</i> , 2014 , 25, 107-117	2.3	10
62	Healing of fatigue delamination cracks in carbon@poxy composite using mendable polymer stitching. <i>Journal of Intelligent Material Systems and Structures</i> , 2014 , 25, 75-86	2.3	19
61	Different Inucleants and the resultant microstructural, fracture, and tensile properties for filled and unfilled ISO polypropylene. <i>Journal of Applied Polymer Science</i> , 2013 , 128, 619-627	2.9	17
60	Thermoplastic Healing in Epoxy Networks: Exploring Performance and Mechanism of Alternative Healing Agents. <i>Macromolecular Materials and Engineering</i> , 2013 , 298, 1232-1242	3.9	38
59	Effect of mendable polymer stitch density on the toughening and healing of delamination cracks in carbon@poxy laminates. <i>Composites Part A: Applied Science and Manufacturing</i> , 2013 , 50, 22-30	8.4	27
58	Thermo-reversible healing in a crosslinked polymer network containing covalent and thermo-reversible bonds. <i>Journal of Applied Polymer Science</i> , 2013 , 128, 3743-3750	2.9	17
57	Effect of ionic content on ballistic self-healing in EMAA copolymers and ionomers. <i>Polymer Chemistry</i> , 2013 , 4, 4910	4.9	105
57 56		4.9	105 50
	Chemistry, 2013, 4, 4910 Healing of carbon fibrellpoxy composites using thermoplastic additives. Polymer Chemistry, 2013,		
56	Chemistry, 2013, 4, 4910 Healing of carbon fibred poxy composites using thermoplastic additives. Polymer Chemistry, 2013, 4, 5007 The effect of surface treatments on the mechanical properties of basalt-reinforced epoxy	4.9	50
56 55	Chemistry, 2013, 4, 4910 Healing of carbon fibred poxy composites using thermoplastic additives. Polymer Chemistry, 2013, 4, 5007 The effect of surface treatments on the mechanical properties of basalt-reinforced epoxy composites. Polymer Composites, 2013, 34, 320-329 Confirmation of the healing mechanism in a mendable EMAABpoxy resin. European Polymer	4.9	50
565554	Healing of carbon fibre poxy composites using thermoplastic additives. <i>Polymer Chemistry</i> , 2013 , 4, 5007 The effect of surface treatments on the mechanical properties of basalt-reinforced epoxy composites. <i>Polymer Composites</i> , 2013 , 34, 320-329 Confirmation of the healing mechanism in a mendable EMAABpoxy resin. <i>European Polymer Journal</i> , 2012 , 48, 524-531 Self-healing of delamination fatigue cracks in carbon fibre poxy laminate using mendable	4·9 3 5·2	50 38 53
56555453	Healing of carbon fibre poxy composites using thermoplastic additives. <i>Polymer Chemistry</i> , 2013 , 4, 5007 The effect of surface treatments on the mechanical properties of basalt-reinforced epoxy composites. <i>Polymer Composites</i> , 2013 , 34, 320-329 Confirmation of the healing mechanism in a mendable EMAA poxy resin. <i>European Polymer Journal</i> , 2012 , 48, 524-531 Self-healing of delamination fatigue cracks in carbon fibre poxy laminate using mendable thermoplastic. <i>Journal of Materials Science</i> , 2012 , 47, 4449-4456 Investigation of factors impacting the in-service degradation of aerospace coatings. <i>Progress in</i>	4.9 3 5.2 4.3	50385353
5655545352	Healing of carbon fibreBpoxy composites using thermoplastic additives. <i>Polymer Chemistry</i> , 2013 , 4, 5007 The effect of surface treatments on the mechanical properties of basalt-reinforced epoxy composites. <i>Polymer Composites</i> , 2013 , 34, 320-329 Confirmation of the healing mechanism in a mendable EMAABpoxy resin. <i>European Polymer Journal</i> , 2012 , 48, 524-531 Self-healing of delamination fatigue cracks in carbon fibreBpoxy laminate using mendable thermoplastic. <i>Journal of Materials Science</i> , 2012 , 47, 4449-4456 Investigation of factors impacting the in-service degradation of aerospace coatings. <i>Progress in Organic Coatings</i> , 2012 , 74, 679-686 EMAA as a healing agent for mendable high temperature epoxy amine thermosets. <i>Composites Part</i>	4.9 3 5.2 4.3 4.8	5038535313

48	Thermally activated healing in a mendable resin using a non woven EMAA fabric. <i>Composites Science and Technology</i> , 2012 , 72, 453-460	8.6	35
47	Designing green, self-healing coatings for metal protection. NPG Asia Materials, 2010 , 2, 143-151	10.3	159
46	Biocompatibility and modification of the protein-based adhesive secreted by the Australian frog Notaden bennetti. <i>Journal of Biomedical Materials Research - Part A</i> , 2010 , 93, 429-41	5.4	8
45	The effect of cluster plasticisation on the self healing behaviour of ionomers. <i>Polymer</i> , 2010 , 51, 679-6	86 3.9	99
44	Autonomous damage initiated healing in a thermo-responsive ionomer. <i>Polymer International</i> , 2010 , 59, n/a-n/a	3.3	12
43	Preparation and characterisation of polyamidepolyimide organoclay nanocomposites. <i>Polymer International</i> , 2008 , 57, 618-625	3.3	12
42	Development of a quasi-static test method to investigate the origin of self-healing in ionomers under ballistic conditions. <i>Polymer Testing</i> , 2008 , 27, 11-19	4.5	93
41	Understanding the effect of nano-modifier addition upon the properties of fibre reinforced laminates. <i>Composites Science and Technology</i> , 2008 , 68, 718-726	8.6	74
40	The role of nanodispersion on the fire performance of organoclaypolyamide nanocomposites. <i>Composites Science and Technology</i> , 2008 , 68, 2882-2891	8.6	16
39	Towards an understanding of thermally activated self-healing of an ionomer system during ballistic penetration. <i>Acta Materialia</i> , 2008 , 56, 5737-5750	8.4	210
38	Moisture induced crack filling in barrier coatings containing montmorillonite as an expandable phase. <i>Surface and Coatings Technology</i> , 2008 , 202, 3346-3353	4.4	36
37	Ionomers as Self Healing Polymers. <i>Springer Series in Materials Science</i> , 2007 , 95-114	0.9	13
36	Reaction Kinetics and Phase Transformations During Cure of a Thermoplastic-Modified Epoxy Thermoset. <i>Macromolecular Materials and Engineering</i> , 2007 , 292, 46-61	3.9	29
35	Effect of Ultrasonic Dispersion Methods on Thermal and Mechanical Properties of Organoclay Epoxy Nanocomposites. <i>Macromolecular Materials and Engineering</i> , 2007 , 292, 415-427	3.9	45
34	Understanding the decomposition and fire performance processes in phosphorus and nanomodified high performance epoxy resins and composites. <i>Polymer</i> , 2007 , 48, 2345-2354	3.9	58
33	Investigation of the reaction mechanism of different epoxy resins using a phosphorus-based hardener. <i>Journal of Applied Polymer Science</i> , 2006 , 99, 3288-3299	2.9	10
32	Phosphorus-containing diamine for flame retardancy of high functionality epoxy resins. Part II. The thermal and mechanical properties of mixed amine systems. <i>Polymer</i> , 2006 , 47, 2091-2098	3.9	61
31	Toughening of a carbon fibre reinforced epoxy anhydride composite using an epoxy terminated hyperbranched modifier. <i>Composites Science and Technology</i> , 2005 , 65, 2156-2166	8.6	56

(2003-2004)

30	Investigation of thermal and fire performance of novel hybrid geopolymer composites. <i>Journal of Materials Science</i> , 2004 , 39, 4721-4726	4.3	20
29	Toughening of epoxy resin systems using low-viscosity additives. <i>Polymer International</i> , 2004 , 53, 78-84	3.3	83
28	Toughening of an epoxy anhydride resin system using an epoxidized hyperbranched polymer. <i>Polymer International</i> , 2004 , 53, 69-77	3.3	78
27	Influence of substituents on the kinetics of epoxy/aromatic diamine resin systems. <i>Journal of Polymer Science Part A</i> , 2004 , 42, 3143-3156	2.5	39
26	Effect of organo-phosphorus and nano-clay materials on the thermal and fire performance of epoxy resins. <i>Journal of Applied Polymer Science</i> , 2004 , 91, 1233-1253	2.9	111
25	Processing and chemorheology of epoxy resins and their blends with dendritic hyperbranched polymers. <i>Journal of Applied Polymer Science</i> , 2004 , 92, 1604-1610	2.9	34
24	A phosphorus-containing diamine for flame-retardant, high-functionality epoxy resins. I. Synthesis, reactivity, and thermal degradation properties. <i>Journal of Applied Polymer Science</i> , 2004 , 92, 2093-2100	2.9	32
23	Thermal stability and water uptake of high performance epoxy layered silicate nanocomposites. <i>European Polymer Journal</i> , 2004 , 40, 187-195	5.2	223
22	Thermal and mechanical characterisation of intercalated epoxy nanocomposites. <i>International Journal of Materials and Product Technology</i> , 2003 , 19, 199	1	2
21	Use of layered silicates to supplementarily toughen high performance epoxy-carbon fiber composites. <i>Journal of Materials Science Letters</i> , 2003 , 22, 1411-1414		37
20	Studies on blends of epoxy-functionalized hyperbranched polymer and epoxy resin. <i>Journal of Materials Science</i> , 2003 , 38, 147-154	4.3	112
19	Development and characterization of a fire retardant epoxy resin using an organo-phosphorus compound. <i>Journal of Materials Science Letters</i> , 2003 , 22, 455-458		16
18	Toughening of trifunctional epoxy using an epoxy-functionalized hyperbranched polymer. <i>Journal of Applied Polymer Science</i> , 2003 , 89, 2339-2345	2.9	102
17	Synthesis, thermal behavior, and cone calorimetry of organophosphorus epoxy materials. <i>Journal of Applied Polymer Science</i> , 2003 , 90, 3696-3707	2.9	20
16	Nanocomposites based on a combination of epoxy resin, hyperbranched epoxy and a layered silicate. <i>Polymer</i> , 2003 , 44, 7449-7457	3.9	146
15	Clay-reinforced epoxy nanocomposites. <i>Polymer International</i> , 2003 , 52, 1403-1407	3.3	107
14	Layered silicate nanocomposites based on various high-functionality epoxy resins: The influence of an organoclay on resin cure. <i>Polymer Engineering and Science</i> , 2003 , 43, 850-862	2.3	54
13	Layered Silicate Nanocomposites Based on Various High-Functionality Epoxy Resins: The Influence of Cure Temperature on Morphology, Mechanical Properties, and Free Volume. <i>Macromolecules</i> , 2003 , 36, 1616-1625	5.5	191

12	Morphology, thermal relaxations and mechanical properties of layered silicate nanocomposites based upon high-functionality epoxy resins. <i>Polymer</i> , 2002 , 43, 4365-4373	3.9	358
11	Toughening of a trifunctional epoxy system. <i>Polymer</i> , 2001 , 42, 3847-3858	3.9	74
10	Toughening of a trifunctional epoxy system Part III. Kinetic and morphological study of the thermoplastic modified cure process. <i>Polymer</i> , 2000 , 41, 3425-3436	3.9	68
9	Thermoplastic toughening of epoxy resins: a critical review. <i>Polymers for Advanced Technologies</i> , 1998 , 9, 3-10	3.2	287
8	Effect of reinforcing fibres on the morphology of a toughened epoxy/amine system. <i>Polymer</i> , 1997 , 38, 1005-1009	3.9	21
7	Toughening of a trifunctional epoxy system: IV. Dynamic mechanical relaxational study of the thermoplastic-modified cure process. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1997 , 35, 153-	-1 63	24
6	Toughening of a trifunctional epoxy system. II. Thermal characterization of epoxy/amine cure. Journal of Applied Polymer Science, 1996 , 60, 2251-2263	2.9	37
5	The effect of compatibilization on the behavior of a polycarbonate/polymer liquid crystal blend. <i>Polymer Engineering and Science</i> , 1996 , 36, 1038-1046	2.3	9
4	Toughening of a trifunctional epoxy system: 1. Near infra-red spectroscopy study of homopolymer cure. <i>Polymer</i> , 1995 , 36, 1347-1355	3.9	57
3	Toughening epoxy resins with polyepichlorohydrin. <i>Journal of Applied Polymer Science</i> , 1993 , 48, 1259-	1269	11
2	Gas Emission Study of the Polyacrylonitrile-Based Continuous Pilot-Scale Carbon Fiber Manufacturing Process. <i>Industrial & Engineering Chemistry Research</i> ,	3.9	1
1	Cure Kinetics and Network Development of a Very High Tg Naphthalene-Based Epoxy Amine Network. <i>ACS Applied Polymer Materials</i> ,	4.3	1