Clement L Higginbotham

List of Publications by Year
in descending order

87	3,105	136740 32	174990 52
papers	citations	h-index	g-index

87	87	87	4316
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Polymer Molecular Weight Analysis by ¹H NMR Spectroscopy. Journal of Chemical Education, 2011, 88, 1098-1104.	1.1	226
2	Thermal behavior and mechanical properties of physically crosslinked PVA/Gelatin hydrogels. Journal of the Mechanical Behavior of Biomedical Materials, 2010, 3, 203-209.	1.5	169
3	Cytotoxic effects induced by unmodified and organically modified nanoclays in the human hepatic HepG2 cell line. Journal of Applied Toxicology, 2011, 31, 27-35.	1.4	108
4	Review of Multifarious Applications of Poly (Lactic Acid). Polymer-Plastics Technology and Engineering, 2016, 55, 1057-1075.	1.9	108
5	The synthesis of novel pH-sensitive poly(vinyl alcohol) composite hydrogels using a freeze/thaw process for biomedical applications. International Journal of Pharmaceutics, 2009, 372, 154-161.	2.6	101
6	Chemical surface modification of calcium carbonate particles with stearic acid using different treating methods. Applied Surface Science, 2016, 378, 320-329.	3.1	101
7	Hydrogel/bioactive glass composites for bone regeneration applications: Synthesis and characterisation. Materials Science and Engineering C, 2013, 33, 4203-4212.	3.8	94
8	Mechanical and biodegradation performance of short natural fibre polyhydroxybutyrate composites. Polymer Testing, 2013, 32, 1603-1611.	2.3	93
9	Mechanical properties and thermal behaviour of PEGDMA hydrogels for potential bone regeneration application. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 1219-1227.	1.5	91
10	Preparation of a novel freeze thawed poly(vinyl alcohol) composite hydrogel for drug delivery applications. European Journal of Pharmaceutics and Biopharmaceutics, 2007, 67, 377-386.	2.0	88
11	Morphology, rheology and mechanical properties of polypropylene/ethyleneâ€“octene copolymer/clay nanocomposites: Effects of the compatibilizer. Composites Science and Technology, 2012, 72, 1697-1704.	3.8	78
12	Characterisation and controlled drug release from novel drug-loaded hydrogels. European Journal of Pharmaceutics and Biopharmaceutics, 2008, 69, 1147-1159.	2.0	76
13	Development and characterisation of an agarâ€“polyvinyl alcohol blend hydrogel. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 485-493.	1.5	74
14	Lower critical solution temperature control and swelling behaviour of physically crosslinked thermosensitive copolymers based on N-isopropylacrylamide. European Polymer Journal, 2006, 42, 2540-2548.	2.6	72
15	Synthesis and characterisation of chemically crosslinked N-vinyl pyrrolidinone (NVP) based hydrogels. European Polymer Journal, 2005, 41, 1272-1279.	2.6	71
16	The synthesis of a physically crosslinked NVP based hydrogel. Polymer, 2003, 44, 7851-7860.	1.8	70
17	The synthesis, characterisation, phase behaviour and swelling of temperature sensitive physically crosslinked poly(1-vinyl-2-pyrrolidinone)/poly(N-isopropylacrylamide) hydrogels. European Polymer Journal, 2006, 42, 69-80.	2.6	65
18	Multifunctional polyvinylpyrrolidinone-polyacrylic acid copolymer hydrogels for biomedical applications. International Journal of Pharmaceutics, 2006, 326, 50-59.	2.6	58

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19	Additive Manufacturing of Personalized Pharmaceutical Dosage Forms via Stereolithography. Pharmaceutics, 2019, 11, 645.	2.0	58
20	In vitro degradation and drug release from polymer blends based on poly(dl-lactide), poly(l-lactide-glycolide) and poly(Îµ-caprolactone). Journal of Materials Science, 2010, 45, 1284-1292.	1.7	55
21	Investigation of a novel freeze-thaw process for the production of drug delivery hydrogels. Journal of Materials Science: Materials in Medicine, 2005, 16, 1149-1158.	1.7	54
22	Preparation of monolithic matrices for oral drug delivery using a supercritical fluid assisted hot melt extrusion process. International Journal of Pharmaceutics, 2007, 329, 62-71.	2.6	54
23	The effects of high energy electron beam irradiation in air on accelerated aging and on the structure property relationships of low density polyethylene. Nuclear Instruments & Methods in Physics Research B, 2013, 297, 64-74.	0.6	54
24	The effects of high energy electron beam irradiation on the thermal and structural properties of low density polyethylene. Radiation Physics and Chemistry, 2012, 81, 962-966.	1.4	47
25	The significance of variation in extrusion speeds and temperatures on a PEO/PCL blend based matrix for oral drug delivery. International Journal of Pharmaceutics, 2008, 351, 201-208.	2.6	45
26	Effects of gamma ray and electron beam irradiation on the mechanical, thermal, structural and physicochemical properties of poly (ether-block-amide) thermoplastic elastomers. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 17, 252-268.	1.5	40
27	The influence of electron beam irradiation conducted in air on the thermal, chemical, structural and surface properties of medical grade polyurethane. European Polymer Journal, 2013, 49, 1782-1795.	2.6	40
28	Development of novel chitosan-poly(N,N-diethylacrylamide) IPN films for potential wound dressing and biomedical applications. Journal of Polymer Research, 2013, 20, 1.	1.2	39
29	Synthesis of linear aliphatic polycarbonate macroglycols using dimethylcarbonate. Journal of Applied Polymer Science, 2009, 111, 217-227.	1.3	37
30	The synthesis, swelling behaviour and rheological properties of chemically crosslinked thermosensitive copolymers based on N-isopropylacrylamide. Journal of Materials Science, 2007, 42, 4136-4148.	1.7	34
31	Synthesis and characterisation of styrene butadiene styrene-g-acrylic acid for potential use in biomedical applications. Materials Science and Engineering C, 2009, 29, 1655-1661.	3.8	34
32	The use of Agar as a novel filler for monolithic matrices produced using hot melt extrusion. European Journal of Pharmaceutics and Biopharmaceutics, 2006, 64, 75-81.	2.0	32
33	The effect of salts and pH buffered solutions on the phase transition temperature and swelling of thermoresponsive pseudogels based on N-isopropylacrylamide. Journal of Materials Science, 2007, 42, 9845-9854.	1.7	32
34	Halloysite nanotube reinforced polylactic acid composite. Polymer Composites, 2017, 38, 2166-2173.	2.3	32
35	The rheological and thermal characteristics of freeze-thawed hydrogels containing hydrogen peroxide for potential wound healing applications. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 264-271.	1.5	31
36	Photopolymerised thermo-responsive poly(N,N-diethylacrylamide)-based copolymer hydrogels for potential drug delivery applications. Journal of Polymer Research, 2012, 19, 1.	1.2	29

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37	Effect of serum concentration on the cytotoxicity of clay particles. Cell Biology International, 2012, 36, 57-61.	1.4	28
38	Cell encapsulation and cryostorage in PVA-gelatin cryogels: incorporation of carboxylated Îµ-poly-L-lysine as cryoprotectant. Journal of Tissue Engineering and Regenerative Medicine, 2012, 6, 280-290.	1.3	27
39	Fabrication and inÂvitro biological evaluation of photopolymerisable hydroxyapatite hydrogel composites for bone regeneration. Journal of Biomaterials Applications, 2014, 28, 1274-1283.	1.2	27
40	Evaluation of the materials properties, stability and cell response of a range of PEGDMA hydrogels for tissue engineering applications. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 99, 1-10.	1.5	27
41	Synthesis and characterisation of thermo-sensitive terpolymer hydrogels for drug delivery applications. Journal of Polymer Research, 2011, 18, 2307-2324.	1.2	25
42	Compressive Strength and Bioactivity Properties of Photopolymerizable Hybrid Composite Hydrogels for Bone Tissue Engineering. International Journal of Polymeric Materials and Polymeric Biomaterials, 2014, 63, 641-650.	1.8	25
43	Synthesis and characterization of physically crosslinked Nâ€vinylcaprolactam, acrylic acid, methacrylic acid, and N,Nâ€dimethylacrylamide hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1555-1564.	2.4	22
44	The incorporation of an organically modified layered silicate in monolithic polymeric matrices produced using hot melt extrusion. Materials Chemistry and Physics, 2007, 103, 419-426.	2.0	19
45	Rheological and thermal characteristics of a two phase hydrogel system for potential wound healing applications. Journal of Materials Science, 2010, 45, 2884-2891.	1.7	19
46	Synthesis and characterization of high density polyethylene/peat ash composites. Composites Part B: Engineering, 2016, 94, 312-321.	5.9	19
47	Microstructure characterization and thermal analysis of hybrid block copolymer Î±-methoxy-poly(ethylene glycol)-block-poly[Îµ-(benzyloxycarbonyl)-l-lysine] for biomedical applications. Journal of Molecular Structure, 2010, 977, 153-164.	1.8	18
48	Modulating the mechanical properties of photopolymerised polyethylene glycolâ€“polypropylene glycol hydrogels for bone regeneration. Journal of Materials Science, 2012, 47, 6577-6585.	1.7	18
49	Evaluation of Novel Antibiotic-Eluting Thermoresponsive Chitosan-PDEAAm Based Wound Dressings. International Journal of Polymeric Materials and Polymeric Biomaterials, 2014, 63, 873-883.	1.8	16
50	Investigation of miscibility estimation methods between indomethacin and poly(vinylpyrrolidone-co-vinyl acetate). International Journal of Pharmaceutics, 2018, 549, 50-57.	2.6	16
51	Physical and Mechanical Properties of Blends Based on Poly (dl-lactide), Poly (l-lactide-glycolide) and Poly (Ïµ-caprolactone). Polymer-Plastics Technology and Engineering, 2010, 49, 678-687.	1.9	15
52	Development of chemically cross-linked hydrophilicâ€“hydrophobic hydrogels for drug delivery applications. European Polymer Journal, 2016, 75, 25-35.	2.6	15
53	Structureâ€“property relationships of polymer blend/clay nanocomposites: Compatibilized and noncompatibilized polystyrene/propylene/clay. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 431-441.	2.4	14
54	The effect of processing conditions for polylactic acid based fibre composites via twin-screw extrusion. Journal of Reinforced Plastics and Composites, 2014, 33, 648-662.	1.6	14

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55	An investigation of the inter-molecular interaction, solid-state properties and dissolution properties of mixed copovidone hot-melt extruded solid dispersions. Journal of Drug Delivery Science and Technology, 2019, 53, 101132.	1.4	14
56	Flavone formation in the wheeler aurone synthesis. Tetrahedron, 1990, 46, 7219-7226.	1.0	13
57	Photopolymerisation and characterisation of negative temperature sensitive hydrogels based on N,N-diethylacrylamide. Journal of Materials Science, 2011, 46, 509-517.	1.7	13
58	Improvement in mechanical properties of grafted polylactic acid composite fibers via hot melt extrusion. Polymer Composites, 2014, 35, 1792-1797.	2.3	13
59	Stability studies of hot-melt extruded ternary solid dispersions of poorly-water soluble indomethacin with poly(vinyl pyrrolidone-co-vinyl acetate) and polyethylene oxide. Journal of Drug Delivery Science and Technology, 2019, 52, 248-254.	1.4	13
60	The Effect of Cooling on the Degree of Crystallinity, Solid-State Properties, and Dissolution Rate of Multi-Component Hot-Melt Extruded Solid Dispersions. Pharmaceutics, 2020, 12, 212.	2.0	13
61	The Development of Hot Melt Extruded Biocompatible Controlled Release Drug Delivery Devices. International Journal of Polymeric Materials and Polymeric Biomaterials, 2014, 63, 476-485.	1.8	12
62	The synthesis and characterisation of grafted random styrene butadiene for biomedical applications. Journal of Materials Science, 2009, 44, 889-896.	1.7	11
63	Effect of Compatibilizer Content on the Mechanical Properties of Bioplastic Composites via Hot Melt Extrusion. Polymer-Plastics Technology and Engineering, 2014, 53, 1223-1235.	1.9	11
64	Analysis of the Mechanical Properties of Solvent Cast Blends of PLA/PCL. Applied Mechanics and Materials, 0, 679, 50-56.	0.2	11
65	Investigation of Ethylene Oxide-co-propylene Oxide for Dissolution Enhancement of Hot-Melt Extruded Solid Dispersions. Journal of Pharmaceutical Sciences, 2018, 107, 1372-1382.	1.6	11
66	Cyto- and genotoxicological assessment and functional characterization of N -vinyl-2-pyrrolidoneâ€“acrylic acid-based copolymeric hydrogels with potential for future use in wound healing applications. Biomedical Materials (Bristol), 2010, 5, 035002.	1.7	10
67	Characterisation of the effects of a titanium micro particle filler on a polyether-block-amide host matrix. Journal of Materials Science, 2010, 45, 3204-3214.	1.7	10
68	Melt Processing of Bioplastic Composites via Twin Screw Extrusion and Injection Molding. Polymer-Plastics Technology and Engineering, 2014, 53, 379-386.	1.9	10
69	Melt Extruded Bioresorbable Polymer Composites for Potential Regenerative Medicine Applications. Polymer-Plastics Technology and Engineering, 2016, 55, 432-446.	1.9	10
70	Development of a novel porous cryo-foam for potential wound healing applications. Journal of Materials Science: Materials in Medicine, 2009, 20, 1193-1199.	1.7	9
71	Synthesis and characterisation of styrene butadiene styrene-g-N-vinyl-2-pyrrolidinone for use in biomedical applications. Materials Science and Engineering C, 2011, 31, 246-251.	3.8	9
72	Temperature-triggered gelation and controlled drug release via NIPAAm/NVP-based hydrogels. Journal of Materials Science, 2011, 46, 3233-3240.	1.7	8

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73	Effects of electron beam irradiation on the property behaviour of poly(ether-block-amide) blended with various stabilisers. Radiation Physics and Chemistry, 2015, 110, 24-37.	1.4	8
74	O-Heterocycles by the cyclization of side-chain bromomethoxylated 2?-acetoxychalcones. Monatshefte FÃ¼r Chemie, 1991, 122, 83-87.	0.9	6
75	Synthesis and characterisation of styrene butadiene styrene-g-N-isopropylacrylamide via UV polymerisation for potential use in biomedical applications. Journal of Materials Science, 2010, 45, 599-606.	1.7	6
76	Effects of temperature, packaging and electron beam irradiation processing conditions on the property behaviour of Poly (ether-block-amide) blends. Materials Science and Engineering C, 2014, 39, 380-394.	3.8	6
77	The effect of the mixing routes of biodegradable polylactic acid and polyhydroxybutyrate nanocomposites and compatibilised nanocomposites. Journal of Thermoplastic Composite Materials, 2016, 29, 538-557.	2.6	6
78	Synthesis and photopolymerisation of maleic polyvinyl alcohol based hydrogels for bone tissue engineering. Journal of Polymer Research, 2014, 21, 1.	1.2	4
79	The Effect of Photoinitiator Concentration on the Physicochemical Properties of Hydrogel Contact Lenses. Applied Mechanics and Materials, 2014, 679, 118-127.	0.2	3
80	The influence of electron beam irradiation on the mechanical and thermal properties of Poly (ether-block-amide) blends. Radiation Physics and Chemistry, 2014, 94, 26-30.	1.4	3
81	Micro-Injection Moulding of Poly(vinylpyrrolidone-vinyl acetate) Binary and Ternary Amorphous Solid Dispersions. Pharmaceutics, 2019, 11, 240.	2.0	3
82	Conformational and thermal analyses of Î±â€methoxyâ€poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (glycol)â€ Polymer International, 2013, 62, 1169-1178.	1.6	2
83	Synthesis and Characterization of Polyethylene Glycol Dimethacrylate Hydrogels for Biomedical Application. Applied Mechanics and Materials, 2014, 679, 158-170.	0.2	2
84	Preparation and characterization of poly(ethylene glycol)-block-poly[Îµ-(benzyloxycarbonyl)-l-lysine] thin films for biomedical applications. Polymer Bulletin, 2014, 71, 1691-1709.	1.7	1
85	Characterisation and controlled drug release from a novel two-phase hydrogel system. International Journal of Biotechnology, 2010, 11, 203.	1.2	0
86	Simulation of arteriosclerosis in a virtual artery. International Journal of Medical Engineering and Informatics, 2010, 2, 82.	0.2	0
87	Melt Processed Polymer Blends for Potential Regenerative Medicine Applications. Applied Mechanics and Materials, 0, 679, 92-100.	0.2	0