Darren J Martin

List of Publications by Year
in descending order

136 papers	7,351 citations	70961 41 h-index	58464 82 g-index
139 all docs	139 docs citations	139 times ranked	9974 citing authors

#	Article	IF	Citations
1	High-Resolution R2R-Compatible Printing of Carbon Nanotube Conductive Patterns Enabled by Cellulose Nanocrystals. ACS Applied Nano Materials, 2022, 5, 1574-1587.	2.4	4
2	Efficient lithium-ion storage using a heterostructured porous carbon framework and its <i>in situ</i> transmission electron microscopy study. Chemical Communications, 2022, 58, 863-866.	2.2	42
3	Nanocellulose: a sustainable nanomaterial for controlled drug delivery applications. , 2022, , 217-253.		0
4	Assessing cellulose micro/nanofibre morphology using a high throughput fibre analysis device to predict nanopaper performance. Cellulose, 2022, 29, 2599-2616.	2.4	8
5	Novel Methodology to Visualize Biomass Processing Sustainability & Cellulose Nanofiber Product Quality. ACS Sustainable Chemistry and Engineering, 2022, 10, 3623-3632.	3.2	8
6	Lignocellulosic plant cell wall variation influences the structure and properties of hard carbon derived from sorghum biomass. Carbon Trends, 2022, 7, 100168.	1.4	10
7	Ultra-stable sodium ion storage of biomass porous carbon derived from sugarcane. Chemical Engineering Journal, 2022, 445, 136344.	6.6	56
8	A mixed acid methodology to produce thermally stable cellulose nanocrystal at high yield using phosphoric acid. Journal of Bioresources and Bioproducts, 2022, 7, 99-108.	11.8	33
9	Rational analysis of dispersion and solubility of Kraft lignin in polyols for polyurethanes. Industrial Crops and Products, 2022, 185, 115129.	2.5	9
10	Processing and rheological properties of polyol/cellulose nanofibre dispersions for polyurethanes. Polymer, 2022, 255, 125130.	1.8	3
11	Toughening of natural rubber nanocomposites by the incorporation of nanoscale lignin combined with an industrially relevant leaching process. Industrial Crops and Products, 2021, 159, 113063.	2.5	20
12	Sorghum biomass-derived porous carbon electrodes for capacitive deionization and energy storage. Microporous and Mesoporous Materials, 2021, 312, 110757.	2.2	63
13	Tuning mechanical properties of seaweeds for hard capsules: A step forward for a sustainable drug delivery medium. Food Hydrocolloids for Health, 2021, 1, 100023.	1.6	11
14	Grafting from cellulose nanofibres with naturally-derived oil to reduce water absorption. Polymer, 2021, 222, 123659.	1.8	2
15	Dispersion Methodology for Technical Lignin into Polyester Polyol for High-Performance Polyurethane Insulation Foam. ACS Applied Polymer Materials, 2021, 3, 3528-3537.	2.0	18
16	Sorghum as a novel biomass for the sustainable production of cellulose nanofibers. Industrial Crops and Products, 2021, 171, 113917.	2.5	20
17	Valorisation of technical lignin in rigid polyurethane foam: a critical evaluation on trends, guidelines and future perspectives. Green Chemistry, 2021, 23, 8725-8753.	4.6	36
18	Trends in the production of cellulose nanofibers from non-wood sources. Cellulose, 2020, 27, 575-593.	2.4	151

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19	The effect of fibre length and matrix modification on the fire performance of thermoplastic composites: The behaviour of PP as an example of non-charring matrix. Journal of Thermoplastic Composite Materials, 2020, , 089270572092513.	2.6	2
20	Potassiumâ€Ion Storage in Celluloseâ€Derived Hard Carbon: The Role of Functional Groups. Batteries and Supercaps, 2020, 3, 953-960.	2.4	24
21	Reduced Graphene Oxide (rGO) Prepared by Metalâ€Induced Reduction of Graphite Oxide: Improved Conductive Behavior of a Poly(methyl methacrylate) (PMMA)/rGO Composite. ChemistrySelect, 2019, 4, 7954-7958.	0.7	5
22	Evaluation of properties and specific energy consumption of spinifex-derived lignocellulose fibers produced using different mechanical processes. Cellulose, 2019, 26, 6555-6569.	2.4	21
23	Influence of Different Nanocellulose Additives on Processing and Performance of PAN-Based Carbon Fibers. ACS Omega, 2019, 4, 9720-9730.	1.6	17
24	The selective cleavage of lignin aliphatic Câ€“O linkages by solvent-assisted fast pyrolysis (SAFP). Journal of Inclusion Phenomena and Macrocyclic Chemistry, 2019, 94, 297-307.	0.9	7
25	Softâ€Templated Synthesis of Sheetâ€Like Nanoporous Nitrogenâ€Doped Carbons for Electrochemical Supercapacitors. ChemElectroChem, 2019, 6, 1901-1907.	1.7	7
26	Electrochemical Characteristics of Cobaltosic Oxide in Organic Electrolyte According to Bode Plots: Doubleâ€Layer Capacitance and Pseudocapacitance. ChemElectroChem, 2019, 6, 2456-2463.	1.7	17
27	Double-Layered Modified Separators as Shuttle Suppressing Interlayers for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2019, 11, 541-549.	4.0	74
28	Property improvements of thermoplastic copolyester with a multifunctional mixture/nanofiller by reactive extrusion. Journal of Applied Polymer Science, 2018, 135, 46369.	1.3	1
29	Mechanical properties of polyamide 11 reinforced with cellulose nanofibres from Triodia pungens. Cellulose, 2018, 25, 2367-2380.	2.4	14
30	Nanocellulose from Spinifex as an Effective Adsorbent to Remove Cadmium(II) from Water. ACS Sustainable Chemistry and Engineering, 2018, 6, 3279-3290.	3.2	138
31	Hybrid polyether-palm oil polyester polyol based rigid polyurethane foam reinforced with cellulose nanocrystal. Industrial Crops and Products, 2018, 112, 378-388.	2.5	40
32	Facile Tuning of the Surface Energy of Cellulose Nanofibers for Nanocomposite Reinforcement. ACS Omega, 2018, 3, 15933-15942.	1.6	23
33	Polymer Nanocomposites Characterization: Atomic Layer Deposition of Metal Oxide on Nanocellulose for Enabling Microscopic Characterization of Polymer Nanocomposites (Small 46/2018). Small, 2018, 14, 1870217.	5.2	0
34	Atomic Layer Deposition of Metal Oxide on Nanocellulose for Enabling Microscopic Characterization of Polymer Nanocomposites. Small, 2018, 14, e1803439.	5.2	9
35	Effects of the growth environment on the yield and material properties of nanocellulose derived from the Australian desert grass Triodia. Industrial Crops and Products, 2018, 126, 238-249.	2.5	7
36	High surface area nanoporous carbon derived from high quality jute from Bangladesh. Materials Chemistry and Physics, 2018, 216, 491-495.	2.0	24

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37	Grapheneâ€Wrapped Nanoporous Nickelâ€Cobalt Oxide Flakes for Electrochemical Supercapacitors. ChemistrySelect, 2018, 3, 8505-8510.	0.7	11
38	Cellulose Nanofibers as Rheology Modifiers and Enhancers of Carbonization Efficiency in Polyacrylonitrile. ACS Sustainable Chemistry and Engineering, 2017, 5, 3296-3304.	3.2	32
39	Spinifex nanocellulose derived hard carbon anodes for high-performance sodium-ion batteries. Sustainable Energy and Fuels, 2017, 1, 1090-1097.	2.5	48
40	Reinforcement of natural rubber latex using lignocellulosic nanofibers isolated from spinifex grass. Nanoscale, 2017, 9, 9510-9519.	2.8	59
41	The use of cellulose nanocrystals to enhance the thermal insulation properties and sustainability of rigid polyurethane foam. Industrial Crops and Products, 2017, 107, 114-121.	2.5	130
42	InÂvitro mineralisation of grafted ePTFE membranes carrying carboxylate groups. Bioactive Materials, 2017, 2, 27-34.	8.6	5
43	Allometric scaling of skin thickness, elasticity, viscoelasticity to mass for micro-medical device translation: from mice, rats, rabbits, pigs to humans. Scientific Reports, 2017, 7, 15885.	1.6	174
44	Synthesis and characterization of cellulose nanocrystals as reinforcing agent in solely palm based polyurethane foam. AIP Conference Proceedings, 2017, , .	0.3	12
45	High aspect ratio nanocellulose from an extremophile spinifex grass by controlled acid hydrolysis. Cellulose, 2017, 24, 3753-3766.	2.4	37
46	What are the Driving Factors Influencing the Size Distribution of Airborne Synthetic Clay Particles Emitted from a Jet Milling Process?. Aerosol and Air Quality Research, 2017, 16, 25-35.	0.9	1
47	Dip-and-Drag Lateral Force Spectroscopy for Measuring Adhesive Forces between Nanofibers. Langmuir, 2016, 32, 13340-13348.	1.6	5
48	Scalable processing of thermoplastic polyurethane nanocomposites toughened with nanocellulose. Chemical Engineering Journal, 2016, 302, 406-416.	6.6	54
49	Gel point as a measure of cellulose nanofibre quality and feedstock development with mechanical energy. Cellulose, 2016, 23, 3051-3064.	2.4	47
50	Characterising the material properties at the interface between skin and a skin vaccination microprojection device. Acta Biomaterialia, 2016, 36, 186-194.	4.1	18
51	Release of bioactive peptides from polyurethane films in vitro and in vivo: Effect of polymer composition. Acta Biomaterialia, 2016, 41, 264-272.	4.1	19
52	Stable non-covalent labeling of layered silicate nanoparticles for biological imaging. Materials Science and Engineering C, 2016, 61, 674-680.	3.8	6
53	Fluoromica nanoparticle cytotoxicity in macrophages decreases with size and extent of uptake. International Journal of Nanomedicine, 2015, 10, 2363.	3.3	6
54	Easily deconstructed, high aspect ratio cellulose nanofibres from Triodia pungens; an abundant grass of Australia's arid zone. RSC Advances, 2015, 5, 32124-32132.	1.7	60

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55	Power generation and wastewater treatment using a novel SPEEK nanocomposite membrane in a dual chamber microbial fuel cell. International Journal of Hydrogen Energy, 2015, 40, 477-487.	3.8	44
56	A systematic study substituting polyether polyol with palm kernel oil based polyester polyol in rigid polyurethane foam. Industrial Crops and Products, 2015, 66, 16-26.	2.5	154
57	<scp>SPEEK</scp>/<scp>cSMM</scp> membrane for simultaneous electricity generation and wastewater treatment in microbial fuel cell. Journal of Chemical Technology and Biotechnology, 2015, 90, 641-647.	1.6	24
58	Structural features, properties, and relaxations of PMMA-ZnO nanocomposite. Journal of Materials Science, 2015, 50, 2218-2228.	1.7	23
59	Enhanced thermal stability of biomedical thermoplastic polyurethane with the addition of cellulose nanocrystals. Journal of Applied Polymer Science, 2015, 132, .	1.3	37
60	Production of cellulose nanocrystals via a scalable mechanical method. RSC Advances, 2015, 5, 57133-57140.	1.7	72
61	Isolation of cellulose nanofibrils from Triodia pungens via different mechanical methods. Cellulose, 2015, 22, 2483-2498.	2.4	81
62	Reduction of aspect ratio of fluoromica using high-energy milling. Applied Clay Science, 2015, 114, 315-320.	2.6	3
63	Structureâ€•property relationships in copolyester elastomerâ€•layered silicate nanocomposites. Journal of Applied Polymer Science, 2015, 132, .	1.3	9
64	Evaluation of Coatings for Mg Alloys for Biomedical Applications. Advanced Engineering Materials, 2015, 17, 58-67.	1.6	18
65	Are There Generalizable Trends in the Release of Airborne Synthetic Clay Nanoparticles from a Jet Milling Process?. Aerosol and Air Quality Research, 2015, 15, 365-375.	0.9	3
66	Preparation and characterization of green bio-composites based on modified spinifex resin and spinifex grass fibres. Journal of Composite Materials, 2014, 48, 1375-1382.	1.2	9
67	Interaction of Human Arylamine <i>N</i>-Acetyltransferase 1 with Different Nanomaterials. Drug Metabolism and Disposition, 2014, 42, 377-383.	1.7	16
68	Biorenewable blends of polyamideâ€•11 and polylactide. Polymer Engineering and Science, 2014, 54, 1523-1532.	1.5	57
69	Effect of Supercritical Carbon Dioxide on the Loading and Release of Model Drugs from Polyurethane Films: Comparison with Solvent Casting. Macromolecular Chemistry and Physics, 2014, 215, 54-64.	1.1	9
70	Tailoring the Void Size of Iron Oxide@Carbon Yolkâ€“Shell Structure for Optimized Lithium Storage. Advanced Functional Materials, 2014, 24, 4337-4342.	7.8	212
71	Cryptic Epitopes of Albumin Determine Mononuclear Phagocyte System Clearance of Nanomaterials. ACS Nano, 2014, 8, 3357-3366.	7.3	127
72	Chemical modification of multiwalled carbon nanotube with a bifunctional caged ligand for radioactive labelling. Acta Materialia, 2014, 64, 54-61.	3.8	13

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73	Optimisation of resin extraction from an Australian arid grass â€˜Triodia pungensâ€™ and its preliminary evaluation as an anti-termite timber coating. Industrial Crops and Products, 2014, 59, 241-247.	2.5	12
74	Argon plasma treatment-induced grafting of acrylic acid onto expanded poly(tetrafluoroethylene) membranes. Polymer, 2013, 54, 6536-6546.	1.8	28
75	Blends of biorenewable polyamide-11 and polyamide-6,10. Polymer, 2013, 54, 6961-6970.	1.8	40
76	The effect of formulation on the penetration of coated and uncoated zinc oxide nanoparticles into the viable epidermis of human skin in vivo. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 84, 297-308.	2.0	111
77	In vitro biostability of poly(dimethyl siloxane/hexamethylene oxide)-based polyurethane/layered silicate nanocomposites. Acta Biomaterialia, 2013, 9, 8308-8317.	4.1	37
78	Organization of mixed dimethyldioctadecylammonium and choline modifiers on the surface of synthetic hectorite. Journal of Colloid and Interface Science, 2013, 409, 72-79.	5.0	7
79	Preparation and characterization of down shifting ZnS:Mn/PMMA nanocomposites for improving photovoltaic silicon solar cell efficiency. Materials Chemistry and Physics, 2013, 139, 531-536.	2.0	21
80	The in vivo and in vitro corrosion of high-purity magnesium and magnesium alloys WZ21 and AZ91. Corrosion Science, 2013, 75, 354-366.	3.0	174
81	Quasi-solid state uniaxial and biaxial deformation of PET/MWCNT composites: structural evolution, electrical and mechanical properties. RSC Advances, 2013, 3, 5162.	1.7	39
82	Preparation and Characterization of Spinifex Resin-based Bio-Polyurethane/Thermoplastic Polyurethane Blends. Polymer-Plastics Technology and Engineering, 2013, 52, 1535-1541.	1.9	10
83	High-pressure freezing/freeze substitution and transmission electron microscopy for characterization of metal oxide nanoparticles within sunscreens. Nanomedicine, 2012, 7, 541-551.	1.7	10
84	Indigenous and modern biomaterials derived from Triodia (â€˜spinifexâ€™) grasslands in Australia. Australian Journal of Botany, 2012, 60, 114.	0.3	25
85	Engineered nanofillers: impact on the morphology and properties of biomedical thermoplastic polyurethane nanocomposites. RSC Advances, 2012, 2, 9151.	1.7	28
86	Hydrolytic degradation of segmented polyurethane copolymers for biomedical applications. Polymer Degradation and Stability, 2012, 97, 1553-1561.	2.7	93
87	Structureâ€“Property Relationships in Biomedical Thermoplastic Polyurethane Nanocomposites. Macromolecules, 2012, 45, 198-210.	2.2	89
88	Radiation-induced grafting of acrylic acid onto expanded poly(tetrafluoroethylene) membranes. Polymer, 2012, 53, 6063-6071.	1.8	33
89	Degradable alginate hydrogels crosslinked by the macromolecular crosslinker alginate dialdehyde. Journal of Materials Chemistry, 2012, 22, 9751.	6.7	110
90	Preparation and Characterization of Polyurethanes from Spinifex Resin Based Bio-Polymer. Journal of Polymers and the Environment, 2012, 20, 326-334.	2.4	5

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91	In vivo biostability of polyurethaneâ€“organosilicate nanocomposites. Acta Biomaterialia, 2012, 8, 2243-2253.	4.1	20
92	Physico-thermal properties of spinifex resin bio-polymer. Materials Chemistry and Physics, 2012, 133, 692-699.	2.0	10
93	Improvement of the wet tensile properties of nanostructured hydroxyapatite and chitosan biocomposite films through hydrophobic modification. Journal of Materials Chemistry, 2011, 21, 2330-2337.	6.7	30
94	Corrosion of high purity Mg, AZ91, ZE41 and Mg2Zn0.2Mn in Hankâ€™s solution at room temperature. Corrosion Science, 2011, 53, 862-872.	3.0	136
95	Corrosion of high purity Mg, Mg2Zn0.2Mn, ZE41 and AZ91 in Hankâ€™s solution at 37 Â°C. Corrosion Science, 2011, 53, 3542-3556.	3.0	191
96	A novel strategy for preparing mechanically robust ionically cross-linked alginate hydrogels. Biomedical Materials (Bristol), 2011, 6, 025010.	1.7	30
97	Effect of MWCNT addition on the thermal and rheological properties of polymethyl methacrylate bone cement. Carbon, 2011, 49, 2893-2904.	5.4	44
98	Layered double hydroxide nanoparticles incorporating terbium: applicability as a fluorescent probe and morphology modifier. Journal of Nanoparticle Research, 2010, 12, 111-120.	0.8	35
99	The effect of carbon nanotube hydrophobicity on the mechanical properties of carbon nanotubeâ€reinforced thermoplastic polyurethane nanocomposites. Journal of Applied Polymer Science, 2010, 117, 24-32.	1.3	3
100	Minireview: Nanoparticles for Molecular Imagingâ€"An Overview. Endocrinology, 2010, 151, 474-481.	1.4	119
101	Synthesis and Characterization of Dual Radiolabeled Layered Double Hydroxide Nanoparticles for Use in In Vitro and In Vivo Nanotoxicology Studies. Journal of Physical Chemistry C, 2010, 114, 734-740.	1.5	26
102	Dynamics of Uniaxially Oriented Elastomers Using Broadband Dielectric Spectroscopy. Macromolecules, 2010, 43, 3125-3127.	2.2	12
103	Fluorescent layered double hydroxide nanoparticles for biological studies. Applied Clay Science, 2010, 48, 271-279.	2.6	53
104	Biomimetic synthesis and tensile properties of nanostructured high volume fraction hydroxyapatite and chitosan biocomposite films. Journal of Materials Chemistry, 2010, 20, 381-389.	6.7	30
105	Evaluation of dynamic creep properties of surgical mesh prosthesesâ€"Uniaxial fatigue. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 91B, 287-296.	1.6	26
106	Photochemistry of lowâ€density polyethyleneâ€“montmorillonite composites. Journal of Applied Polymer Science, 2009, 112, 381-389.	1.3	9
107	SERS of Semiconducting Nanoparticles (TiO₂ Hybrid Composites). Journal of the American Chemical Society, 2009, 131, 6040-6041.	6.6	405
108	An organic matrix-mediated processing methodology to fabricate hydroxyapatite based nanostructured biocomposites. Nanoscale, 2009, 1, 229.	2.8	13

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109	Differential plasma protein binding to metal oxide nanoparticles. Nanotechnology, 2009, 20, 455101.	1.3	299
110	Understanding the roles of nanoparticle dispersion and polymer crystallinity in controlling the mechanical properties of HA/PHBV nanocomposites. Biomedical Materials (Bristol), 2009, 4, 015003.	1.7	31
111	Understanding the roles of nanoparticle dispersion and polymer crystallinity in controlling the mechanical properties of HA/PHBV nanocomposites. Biomedical Materials (Bristol), 2009, 4, 015003.	1.7	4
112	Engineering tissue tubes using novel multilayered scaffolds in the rat peritoneal cavity. Journal of Biomedical Materials Research - Part A, 2008, 87A, 719-727.	2.1	15
113	Impact of controlled particle size nanofillers on the mechanical properties of segmented polyurethane nanocomposites. International Journal of Nanotechnology, 2007, 4, 496.	0.1	17
114	Physical and Electrochemical Characterization of Nanocomposite Membranes of Nafion and Functionalized Silicon Oxide. Chemistry of Materials, 2007, 19, 2372-2381.	3.2	95
115	Nafion-MPMDMS nanocomposite membranes with low methanol permeability. Electrochemistry Communications, 2007, 9, 781-786.	2.3	34
116	Effect of the average soft-segment length on the morphology and properties of segmented polyurethane nanocomposites. Journal of Applied Polymer Science, 2006, 102, 128-139.	1.3	27
117	Effect of different preparation routes on the structure and properties of rigid polyurethane-layered silicate nanocomposites. Journal of Applied Polymer Science, 2006, 102, 2894-2903.	1.3	16
118	Polyethylene multiwalled carbon nanotube composites. Polymer, 2005, 46, 8222-8232.	1.8	753
119	Morphology and properties of thermoplastic polyurethane composites incorporating hydrophobic layered silicates. Journal of Applied Polymer Science, 2005, 97, 300-309.	1.3	62
120	Segmented Polyurethane Nanocomposites:Â Impact of Controlled Particle Size Nanofillers on the Morphological Response to Uniaxial Deformation. Macromolecules, 2005, 38, 7386-7396.	2.2	106
121	Morphology and properties of thermoplastic polyurethane nanocomposites incorporating hydrophilic layered silicates. Polymer, 2004, 45, 2249-2260.	1.8	243
122	Long-term in vivo biostability of poly(dimethylsiloxane)/poly(hexamethylene oxide) mixed macrodiol-based polyurethane elastomers. Biomaterials, 2004, 25, 4887-4900.	5.7	171
123	Designing Biostable Polyurethane Elastomers for Biomedical Implants. Australian Journal of Chemistry, 2003, 56, 545.	0.5	147
124	Designing Biostable Polyurethane Elastomers for Biomedical Implants.. ChemInform, 2003, 34, no.	0.1	1
125	Polyethylene-layered silicate nanocomposites for rotational moulding. Polymer International, 2003, 52, 1774-1779.	1.6	12
126	New methods for the assessment of in vitro and in vivo stress cracking in biomedical polyurethanes. Biomaterials, 2001, 22, 973-978.	5.7	27

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127	Polydimethylsiloxane/polyether-mixed macrodiol-based polyurethane elastomers: biostability. Biomaterials, 2000, 21, 1021-1029.	5.7	158
128	The influence of composition ratio on the morphology of biomedical polyurethanes. Journal of Applied Polymer Science, 1999, 71, 937-952.	1.3	67
129	The effect of average soft segment length on morphology and properties of a series of polyurethane elastomers. II. SAXS-DSC annealing study. Journal of Applied Polymer Science, 1997, 64, 803-817.	1.3	166
130	Effect of soft-segment CH2/O ratio on morphology and properties of a series of polyurethane elastomers. Journal of Applied Polymer Science, 1996, 60, 557-571.	1.3	133
131	The effect of average soft segment length on morphology and properties of a series of polyurethane elastomers. I. Characterization of the series. Journal of Applied Polymer Science, 1996, 62, 1377-1386.	1.3	123
132	Magnesium Corrosion in Different Solutions. Materials Science Forum, 0, 690, 369-372.	0.3	5
133	Impact of Controlled Hydrophobicity of the Organically Modified Silicates on the Properties of Biomedical Thermoplastic Polyurethane (TPU) Nanocomposites. Advanced Materials Research, 0, 795, 9-13.	0.3	2
134	Effect of Processing Route on the Morphology of Thermoplastic Polyurethane (TPU) Nanocomposites Incorporating Organofluoromica. Advanced Materials Research, 0, 832, 27-32.	0.3	6
135	Effects of Processing Method and Nanofiller Size on Mechanical Properties of Biomedical Thermoplastic Polyurethane (TPU) Nanocomposites. Advanced Materials Research, 0, 911, 115-119.	0.3	3
136	A cleaner processing approach for cellulose reinforced thermoplastic polyurethane nanocomposites. Polymer Engineering and Science, 0, , .	1.5	4