Joshua U Otaigbe

List of Publications by Year
in descending order

67 papers	2,020 citations	218677 26 h-index	254184 43 g-index
68 all docs	68 docs citations	68 times ranked	1918 citing authors

#	Article	IF	Citations
1	Recent advances in synthesis, characterization and rheological properties of polyurethanes and POSS/polyurethane nanocomposites dispersions and films. Progress in Polymer Science, 2009, 34, 1283-1332.	24.7	299
2	Nanostructured Polyurethane/POSS Hybrid Aqueous Dispersions Prepared by Homogeneous Solution Polymerization. Macromolecules, 2006, 39, 7037-7043.	4.8	124
3	Effect of ionic content, solid content, degree of neutralization, and chain extension on aqueous polyurethane dispersions prepared by prepolymer method. Journal of Applied Polymer Science, 2005, 98, 2514-2520.	2.6	92
4	Rheological Behavior of Aqueous Polyurethane Dispersions:Â Effects of Solid Content, Degree of Neutralization, Chain Extension, and Temperature. Macromolecules, 2005, 38, 4014-4023.	4.8	79
5	The synthesis, characterization and biocompatibility of poly(ester urethane)/polyhedral oligomeric silesquioxane nanocomposites. Polymer, 2009, 50, 5749-5757.	3.8	72
6	Structure and Biocompatibility of Bioabsorbable Nanocomposites of Aliphatic-Aromatic Copolyester and Cellulose Nanocrystals. Biomacromolecules, 2017, 18, 2179-2194.	5.4	67
7	Kinetic Analysis of Fractal Gel Formation in Waterborne Polyurethane Dispersions Undergoing High Deformation Flows. Macromolecules, 2006, 39, 4144-4151.	4.8	66
8	Rheological Behavior of POSS/Polyurethaneâ˘'Urea Nanocomposite Films Prepared by Homogeneous Solution Polymerization in Aqueous Dispersions. Macromolecules, 2007, 40, 4982-4991.	4.8	66
9	Rheokinetics of Thermal-Induced Gelation of Waterborne Polyurethane Dispersions. Macromolecules, 2005, 38, 10178-10184.	4.8	64
10	The structure and properties of binary zinc phosphate glasses studied by molecular dynamics simulations. Journal of Non-Crystalline Solids, 2003, 316, 261-272.	3.1	59
11	Synthesis and rheological properties of oligoimide/montmorillonite nanocomposites. Polymer, 2005, 46, 10866-10872.	3.8	52
12	New phosphate glass/polymer hybridsâ€"Current status and future prospects. Progress in Polymer Science, 2007, 32, 1462-1498.	24.7	50
13	The role of particle surface functionality and microstructure development in isothermal and non-isothermal crystallization behavior of polyamide 6/cellulose nanocrystals nanocomposites. Polymer, 2016, 107, 316-331.	3.8	41
14	Thiolâ˘'Ene Free-Radical and Vinyl Ether Cationic Hybrid Photopolymerization. Macromolecules, 2007, 40, 8788-8793.	4.8	40
15	Modeling of magnetic properties of polymer bonded Ndâ€"Feâ€"B magnets with surface modifications. Journal of Magnetism and Magnetic Materials, 2000, 218, 60-66.	2.3	39
16	Synthesis and characterization of novel biodegradable and biocompatible poly(ester-urethane) thin films prepared by homogeneous solution polymerization. Polymer, 2008, 49, 4393-4398.	3.8	36
17	Polymer-bonded magnets. Journal of Alloys and Compounds, 2000, 309, 100-106.	5.5	34
18	Reactive blending of functionalized polypropylene and polyamide 6:In situ polymerization andin situ compatibilization. Polymer Engineering and Science, 2004, 44, 648-659.	3.1	32

#	Article	IF	Citations
19	Polyamide 6 nanocomposites incorporating cellulose nanocrystals prepared by <i>In situ</i> ringâ€opening polymerization: Viscoelasticity, creep behavior, and melt rheological properties. Polymer Engineering and Science, 2016, 56, 1045-1060.	3.1	32
20	Broadband dielectric spectroscopy of nanostructured maleated polypropylene/polycarbonate blends prepared by in situ polymerization and compatibilization. Polymer, 2007, 48, 4097-4107.	3.8	31
21	Effect of coupling agent and filler particle size on melt rheology of polymer-bonded Nd-Fe-B magnets. Polymer Composites, 1999, 20, 697-704.	4.6	29
22	The effects of the interface on microstructure and rheo-mechanical properties of polyamide 6/cellulose nanocrystal nanocomposites prepared by in-situ ring-opening polymerization and subsequent melt extrusion. Polymer, 2017, 127, 269-285.	3.8	29
23	Molecular dynamics simulation of the thermal properties of nano-scale polymer particles. Macromolecular Theory and Simulations, 1999, 8, 38-45.	1.4	28
24	Thermal-induced simultaneous liquidâ€“liquid phase separation and liquidâ€“solid transition in aqueous polyurethane dispersions. Polymer, 2005, 46, 10897-10907.	3.8	28
25	Novel phosphate glass/polyamide 6 hybrids: Miscibility, crystallization kinetics, and mechanical properties. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 441-450.	2.1	28
26	Compatibilized polyimide (R-BAPS)/BAPS-modified clay nanocomposites with improved dispersion and properties. Polymer, 2007, 48, 7130-7138.	3.8	28
27	Polymer bonded magnets. II. Effect of liquid crystal polymer and surface modification on magneto-mechanical properties. Polymer Composites, 2000, 21, 332-342.	4.6	26
28	Biocompatibility of synthetic poly(ester urethane)/polyhedral oligomeric silsesquioxane matrices with embryonic stem cell proliferation and differentiation. Journal of Tissue Engineering and Regenerative Medicine, 2010, 4, 553-564.	2.7	25
29	Glass-polymer melt hybrids. I: Viscoelastic properties of novel affordable organic-inorganic polymer hybrids. Polymer Engineering and Science, 2001, 41, 1055-1067.	3.1	24
30	Unusual accelerated molecular relaxations of a tin fluorophosphate glass/polyamide 6 hybrid studied by broadband dielectric spectroscopy. Polymer, 2007, 48, 1659-1666.	3.8	23
31	Creep and recovery behavior of novel organic-inorganic polymer hybrids. Polymer Composites, 2002, 23, 171-181.	4.6	21
32	Processability and properties of novel glass-polymer melt blends. Polymer Composites, 1998, 19, 18-22.	4.6	20
33	Bioabsorbable Soy Protein Plastic Composites: Effect of Polyphosphate Fillers on Biodegradability. Journal of Polymers and the Environment, 2001, 9, 19-23.	5.0	20
34	Nanostructured polymer blends: Synthesis and structure. Polymer, 2005, 46, 12468-12479.	3.8	20
35	Effect of uniaxial drawing of soy protein isolate biopolymer film on structure and mechanical properties. Polymer Engineering and Science, 2007, 47, 374-380.	3.1	19
36	Reduced Crystallinity and Mobility of Nylon-6 Confined near the Organicâ€“Inorganic Interface in a Phosphate Glass-Rich Nanocomposite Detected by ¹Hâ€“¹³C NMR. Macromolecules, 2011, 44, 8100-8105.	4.8	19

#	Article	IF	Citations
37	Crystallization kinetics of low-density polyethylene and polypropylene melt-blended with a low-Tg tin-based phosphate glass. Journal of Applied Polymer Science, 2003, 90, 3445-3456.	2.6	17
38	Synthesis, characterization and degradation of biodegradable thermoplastic elastomers from poly(ester urethane)s and renewable soy protein isolate biopolymer. Polymer, 2010, 51, 5448-5455.	3.8	17
39	Melt Rheology of Tin Phosphate Glasses. Applied Rheology, 2001, 11, 10-18.	5.2	16
40	Morphology and Properties of Novel Blends Prepared from Simultaneous In Situ Polymerization and Compatibilization of Macrocyclic Carbonates and Maleated Poly(propylene). Macromolecular Chemistry and Physics, 2006, 207, 1233-1243.	2.2	16
41	Facile route to nature inspired hydrophobic surface modification of phosphate glass using polyhedral oligomeric silsesquioxane with improved properties. Applied Surface Science, 2019, 470, 733-743.	6.1	16
42	Polymer-bonded magnets: Part I. Analytic thermogravimetry to determine the effect of surface modification on dispersion of Ndâ€"Feâ€"B fillers. Journal of Materials Research, 1999, 14, 2893-2896.	2.6	15
43	Rheology of tin fluorophosphate glass/polyamide 12 hybrids in the low concentration regime. Journal of Rheology, 2007, 51, 1171-1187.	2.6	14
44	Gas barrier behavior of polyimide films filled with synthetic chrysotile nanotubes. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1184-1193.	2.1	14
45	Experimental observation and prediction of interfacial tension and viscoelastic emulsion model behavior in novel phosphate glassâ€"polymer hybrids. Journal of Colloid and Interface Science, 2003, 266, 82-92.	9.4	13
46	Natural cellulose fiberâ€reinforced polyamide 6 thermoplastic composites prepared via <i>in situ</i> anionic ringâ€opening polymerization. Polymer Composites, 2019, 40, 1104-1116.	4.6	13
47	An experimental study of morphology and rheology of ternary Pglass-PS-LDPE hybrids. Polymer Engineering and Science, 2003, 43, 1180-1196.	3.1	12
48	Unexpected effects of inorganic phosphate glass on crystallization and thermo-rheological behavior of polyethylene terephthalate. Polymer, 2018, 154, 135-147.	3.8	12
49	Investigation of Structure and Morphology Dynamics in Tin Fluorophosphate Glass â^' Polyethylene Hybrids Using Solid-State1H,13C, and31P MAS NMR. Chemistry of Materials, 2002, 14, 341-347.	6.7	11
50	Study of the effects of melt blending speed on the structure and properties of phosphate glass/polyamide 12 hybrid materials. Journal of Applied Polymer Science, 2007, 105, 1297-1308.	2.6	10
51	Uniaxial elongational flow effects and morphology development in LDPE/phosphate glass hybrids. Rheologica Acta, 2007, 46, 989-1001.	2.4	10
52	Effects of a Nd?Fe?B magnetic filler on the crystallization of poly(phenylene sulfide). Journal of Applied Polymer Science, 2002, 83, 1091-1102.	2.6	9
53	Synthesis and characterization of novel phosphate glass matrix nanocomposites containing polyhedral oligomeric silsesquioxane with improved properties. Journal of Non-Crystalline Solids, 2017, 463, 189-202.	3.1	8
54	Structure and properties of polyimide-bonded magnets processed from prepolymers based on diacetyl derivatives of aromatic diamines and dianhydrides. Journal of Applied Polymer Science, 2006, 100, 478-485.	2.6	7

#	Article	IF	Citations
55	Gas atomization of polymers. I. Feasibility studies and process development. Advances in Polymer Technology, 1998, 17, 145-160.	1.7	6
56	Investigation of phase behavior during melt processing of novel inorganic-organic polymer hybrid material. Polymer Engineering and Science, 2004, 44, 1692-1701.	3.1	5
57	High Performance, Light weight Thermoplastic/Rare Earth Alloy Magnets. Materials Research Society Symposia Proceedings, 1999, 577, 75.	0.1	3
58	Green hybrid composites from cellulose nanocrystal. , 2017, , 65-99.		3
59	Novel porous bioabsorbable phosphate glass matrix nanocomposites incorporating trisilanolphenyl polyhedral oligomeric silsesquioxane prepared by extrusion. Materials Letters, 2018, 210, 186-190.	2.6	3
60	A Novel Polyamide 12/Al-Cu-Fe Quasicrystal Composite. Materials Research Society Symposia Proceedings, 2001, 702, 1.	0.1	2
61	Toward forced assembly of in situ lowâ€density polyethylene composites reinforced with lowâ€<i>T</i>_g phosphate glass fibers: Effects of matrix crystallization and shear deformation. Polymer Engineering and Science, 2012, 52, 2090-2098.	3.1	2
62	Development of new sustainable inorganic flame retardant additive system for polyamide 6,6 with improved performance. Polymer Engineering and Science, 2015, 55, 1741-1748.	3.1	2
63	Gas atomization of polymers. II. Computational neural network modeling. Advances in Polymer Technology, 1998, 17, 161-173.	1.7	1
64	Effects on the melt rheology of systems of Nd-Fe-B particles suspended in a poly(phenylene sulfide) and liquid crystalline polymer blend. Polymer Composites, 2002, 23, 285-306.	4.6	1
65	Viscoelasticity and crystallization of PCâˆ•mPP nanoblends prepared via in situ polymerization and compatiblization. AIP Conference Proceedings, 2008, , .	0.4	0
66	Thermally stable polyimide/4,4â€²-bis(4-aminophenoxy)phenylsulfone-modified clay nanocomposites. , 0, , 121-142.		0
67	Phosphate glass matrix composites incorporating trisilanol phenyl polyhedral oligomeric silsesquioxane prepared by viscous flow sintering method with enhanced benefits. Journal of Non-Crystalline Solids, 2019, 503-504, 323-333.	3.1	0