

Luigi Botta

List of Publications by Year in descending order

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103
papers

3,267
citations

126708

33
h-index

174990

52
g-index

104
all docs

104
docs citations

104
times ranked

3464
citing authors

#	ARTICLE	IF	CITATIONS
1	Degradation of polymer blends: A brief review. <i>Polymer Degradation and Stability</i> , 2017, 145, 79-92.	2.7	171
2	Study on carvacrol and cinnamaldehyde polymeric films: mechanical properties, release kinetics and antibacterial and antibiofilm activities. <i>Applied Microbiology and Biotechnology</i> , 2012, 96, 1029-1038.	1.7	137
3	Polysaccharide nanocrystals as fillers for PLA based nanocomposites. <i>Cellulose</i> , 2017, 24, 447-478.	2.4	122
4	PLA graphene nanoplatelets nanocomposites: Physical properties and release kinetics of an antimicrobial agent. <i>Composites Part B: Engineering</i> , 2017, 109, 138-146.	5.9	115
5	Electrospun PCL/GO-g-PEG structures: Processing-morphology-properties relationships. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017, 92, 97-107.	3.8	111
6	PLA based biocomposites reinforced with <i>Arundo donax</i> fillers. <i>Composites Science and Technology</i> , 2014, 105, 110-117.	3.8	107
7	Physical properties of virgin-recycled ABS blends: Effect of post-consumer content and of reprocessing cycles. <i>European Polymer Journal</i> , 2012, 48, 637-648.	2.6	99
8	Preparation of three-layered porous PLA/PEG scaffold: relationship between morphology, mechanical behavior and cell permeability. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 54, 8-20.	1.5	90
9	Preparation, characterization and hydrolytic degradation of PLA/PCL co-mingled nanofibrous mats prepared via dual-jet electrospinning. <i>European Polymer Journal</i> , 2017, 96, 266-277.	2.6	85
10	PLA based biocomposites reinforced with <i>Posidonia oceanica</i> leaves. <i>Composites Part B: Engineering</i> , 2018, 139, 1-11.	5.9	79
11	Nanocarbons in Electrospun Polymeric Nanomats for Tissue Engineering: A Review. <i>Polymers</i> , 2017, 9, 76.	2.0	75
12	Reprocessing of PLA/Graphene Nanoplatelets Nanocomposites. <i>Polymers</i> , 2018, 10, 18.	2.0	68
13	Integration of PCL and PLA in a monolithic porous scaffold for interface tissue engineering. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 63, 303-313.	1.5	63
14	Combining in the melt physical and biological properties of poly(caprolactone) and chlorhexidine to obtain antimicrobial surgical monofilaments. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 99-109.	1.7	59
15	Synthesis and self-assembly of a PEGylated-graphene aerogel. <i>Composites Science and Technology</i> , 2016, 128, 193-200.	3.8	59
16	Development and characterization of essential oil component-based polymer films: a potential approach to reduce bacterial biofilm. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 9515-9523.	1.7	55
17	Mechanical behavior of polylactic acid/polycaprolactone porous layered functional composites. <i>Composites Part B: Engineering</i> , 2016, 98, 70-77.	5.9	54
18	Effect of Graphene Nanoplatelets on the Physical and Antimicrobial Properties of Biopolymer-Based Nanocomposites. <i>Materials</i> , 2016, 9, 351.	1.3	49

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19	Plasma modified PLA electrospun membranes for actinorhodin production intensification in <i>Streptomyces coelicolor</i> immobilized-cell cultivations. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 157, 233-241.	2.5	49
20	The role of organoclay and matrix type in photo-oxidation of polyolefin/clay nanocomposite films. <i>Polymer Degradation and Stability</i> , 2009, 94, 712-718.	2.7	47
21	Effect of kind and content of organo-modified clay on properties of PET nanocomposites. <i>Journal of Applied Polymer Science</i> , 2011, 122, 384-392.	1.3	47
22	New Polylactic Acid Composites Reinforced with Artichoke Fibers. <i>Materials</i> , 2015, 8, 7770-7779.	1.3	47
23	Statistical Study of the Influence of CNTs Purification and Plasma Functionalization on the Properties of Polycarbonate-CNTs Nanocomposites. <i>Plasma Processes and Polymers</i> , 2014, 11, 664-677.	1.6	45
24	Comparison of different processing methods to prepare poly(lactid acid)-hydrocalcite composites. <i>Polymer Engineering and Science</i> , 2014, 54, 1804-1810.	1.5	44
25	Melt Processed PCL/PEG Scaffold With Discrete Pore Size Gradient for Selective Cellular Infiltration. <i>Macromolecular Materials and Engineering</i> , 2016, 301, 182-190.	1.7	44
26	Control of biofilm formation by poly-ethylene-co-vinyl acetate films incorporating nisin. <i>Applied Microbiology and Biotechnology</i> , 2010, 87, 729-737.	1.7	43
27	Processing morphology-property relationships of polyamide 6/polyethylene blend-clay nanocomposites. <i>EXPRESS Polymer Letters</i> , 2013, 7, 873-884.	1.1	41
28	Polycaprolactone-based scaffold for oil-selective sorption and improvement of bacteria activity for bioremediation of polluted water. <i>European Polymer Journal</i> , 2017, 91, 260-273.	2.6	40
29	A rapid and eco-friendly route to synthesize graphene-doped silica nanohybrids. <i>Journal of Alloys and Compounds</i> , 2016, 664, 428-438.	2.8	39
30	Tryptophan promotes morphological and physiological differentiation in <i>Streptomyces coelicolor</i> . <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 10177-10189.	1.7	37
31	Development of Polymeric Functionally Graded Scaffolds: A Brief Review. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2017, 15, 107-121.	0.7	36
32	Preparation and characterization of polyamide 6/polyethylene blend-clay nanocomposites in the presence of compatibilisers and stabilizing system. <i>Polymer Degradation and Stability</i> , 2010, 95, 2547-2554.	2.7	35
33	Effect of different matrices and nanofillers on the rheological behavior of polymer-clay nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2010, 48, 344-355.	2.4	35
34	Photo-oxidation of polypropylene/graphene nanoplatelets composites. <i>Polymer Degradation and Stability</i> , 2019, 160, 35-43.	2.7	35
35	Structural and thermal stability of graphene oxide-silica nanoparticles nanocomposites. <i>Journal of Alloys and Compounds</i> , 2017, 695, 2054-2064.	2.8	32
36	Incorporation of Nisin in Poly (Ethylene-Co-Vinyl Acetate) Films by Melt Processing: A Study on the Antimicrobial Properties. <i>Journal of Food Protection</i> , 2011, 74, 1137-1143.	0.8	31

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37	Characterization and Processability of Blends of Polylactide Acid with a New Biodegradable Medium-Chain-Length Polyhydroxyalkanoate. <i>Journal of Polymers and the Environment</i> , 2015, 23, 478-486.	2.4	31
38	Surface modification of poly(ethylene-co-acrylic acid) with amino-functionalized silica nanoparticles. <i>Journal of Materials Chemistry</i> , 2011, 21, 3849.	6.7	30
39	Tunable release of Chlorhexidine from Polycaprolactone-based filaments containing graphene nanoplatelets. <i>European Polymer Journal</i> , 2019, 110, 221-232.	2.6	30
40	Preparation and Characterization of Polyolefin-Based Nanocomposite Blown Films for Agricultural Applications. <i>Macromolecular Materials and Engineering</i> , 2009, 294, 445-454.	1.7	29
41	Photo-oxidative degradation of poly(ethylene-co-vinyl acetate)/nisin antimicrobial films. <i>Polymer Degradation and Stability</i> , 2012, 97, 653-660.	2.7	29
42	Biopolymeric bilayer films produced by co-extrusion film blowing. <i>Polymer Testing</i> , 2018, 65, 35-43.	2.3	29
43	Structure-properties relationships in melt reprocessed PLA/hydroxycitric acid nanocomposites. <i>EXPRESS Polymer Letters</i> , 2017, 11, 555-564.	1.1	28
44	Effect of adding new phosphazene compounds to poly(butylene terephthalate)/polyamide blends. I: Preliminary study in a batch mixer. <i>Polymer Degradation and Stability</i> , 2005, 90, 234-243.	2.7	25
45	Effect of temperature on the release of carvacrol and cinnamaldehyde incorporated into polymeric systems to control growth and biofilms of <i>Escherichia coli</i> and <i>Staphylococcus aureus</i> . <i>Biofouling</i> , 2015, 31, 639-649.	0.8	25
46	Solid state ¹³ C-NMR methodology for the cellulose composition studies of the shells of <i>Prunus dulcis</i> and their derived cellulosic materials. <i>Carbohydrate Polymers</i> , 2020, 240, 116290.	5.1	25
47	Biocomposite PBAT/lignin blown films with enhanced photo-stability. <i>International Journal of Biological Macromolecules</i> , 2022, 217, 161-170.	3.6	24
48	Effect of small amounts of poly(lactic acid) on the recycling of poly(ethylene terephthalate) bottles. <i>Polymer Degradation and Stability</i> , 2011, , .	2.7	23
49	Influence of Drawing on the Antimicrobial and Physical Properties of Chlorhexidine-Compounded Poly(caprolactone) Monofilaments. <i>Macromolecular Materials and Engineering</i> , 2015, 300, 1268-1277.	1.7	23
50	Use of Biochar as Filler for Biocomposite Blown Films: Structure-Processing-Properties Relationships. <i>Polymers</i> , 2021, 13, 3953.	2.0	23
51	A simple method to interpret the rheological behaviour of intercalated polymer nanocomposites. <i>Composites Part B: Engineering</i> , 2016, 98, 382-388.	5.9	22
52	Effect of a Compatibilizer on the Morphology and Properties of Polypropylene/Polyethyleneterephthalate Spun Fibers. <i>Polymers</i> , 2017, 9, 47.	2.0	22
53	Recycling of a Biodegradable Polymer Blend. <i>Polymers</i> , 2020, 12, 2297.	2.0	22
54	Rheological Response of Polyethylene/Clay Nanocomposites to Annealing Treatment. <i>Macromolecular Chemistry and Physics</i> , 2007, 208, 2533-2541.	1.1	21

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55	Thermo-oxidative ageing of an organo-modified clay and effects on the properties of PA6 based nanocomposites. <i>Thermochimica Acta</i> , 2013, 552, 37-45.	1.2	21
56	TrpM, a Small Protein Modulating Tryptophan Biosynthesis and Morpho-Physiological Differentiation in <i>Streptomyces coelicolor</i> A3(2). <i>PLoS ONE</i> , 2016, 11, e0163422.	1.1	20
57	Processing and characterization of highly oriented fibres of biodegradable nanocomposites. <i>Composites Part B: Engineering</i> , 2015, 78, 1-7.	5.9	19
58	Bionanocomposite Blown Films: Insights on the Rheological and Mechanical Behavior. <i>Polymers</i> , 2021, 13, 1167.	2.0	19
59	Physical and biological properties of electrospun poly(<i>d</i> lactide)/nanoclay and poly(<i>d</i> lactide)/nanosilica nanofibrous scaffold for bone tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 2120-2136.	2.1	19
60	Carvacrol activated biopolymeric foam: An effective packaging system to control the development of spoilage and pathogenic bacteria on sliced pumpkin and melon. <i>Food Packaging and Shelf Life</i> , 2021, 28, 100633.	3.3	19
61	PBAT Based Composites Reinforced with Microcrystalline Cellulose Obtained from Softwood Almond Shells. <i>Polymers</i> , 2021, 13, 2643.	2.0	19
62	Effect of the elongational flow on morphology and properties of polypropylene/graphene nanoplatelets nanocomposites. <i>Polymer Testing</i> , 2018, 71, 10-17.	2.3	18
63	<i>Streptomyces coelicolor</i> Vesicles: Many Molecules To Be Delivered. <i>Applied and Environmental Microbiology</i> , 2022, 88, AEM0188121.	1.4	18
64	Effect of adding new phosphazene compounds to poly(butylene terephthalate)/polyamide blends. II: Effect of different polyamides on the properties of extruded samples. <i>Polymer Degradation and Stability</i> , 2006, 91, 2265-2274.	2.7	17
65	Effect of PCL/PEG-Based Membranes on Actinorhodin Production in <i>Streptomyces coelicolor</i> Cultivations. <i>Macromolecular Bioscience</i> , 2016, 16, 686-693.	2.1	17
66	Antibacterial biopolymeric foams: Structure-property relationship and carvacrol release kinetics. <i>European Polymer Journal</i> , 2019, 121, 109298.	2.6	17
67	Competition between chain scission and branching formation in the processing of high-density polyethylene: Effect of processing parameters and of stabilizers. <i>Polymer Engineering and Science</i> , 2009, 49, 1316-1325.	1.5	16
68	Film Blowing of Biodegradable Polymer Nanocomposites for Agricultural Applications. <i>Macromolecular Materials and Engineering</i> , 2021, 306, 2100177.	1.7	16
69	Combining carvacrol and nisin in biodegradable films for antibacterial packaging applications. <i>International Journal of Biological Macromolecules</i> , 2021, 193, 117-126.	3.6	14
70	Prediction of the flow curves of thermoplastic polymer/clay systems from torque data. <i>Polymer Testing</i> , 2014, 37, 12-18.	2.3	13
71	Injection Molding and Mechanical Properties of Bio-Based Polymer Nanocomposites. <i>Materials</i> , 2018, 11, 613.	1.3	13
72	Fracture behavior and mechanical, thermal, and rheological properties of biodegradable films extruded by flat die and calender. <i>Journal of Polymer Science</i> , 2020, 58, 3264-3282.	2.0	13

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73	In-Depth Investigation of the Safety of Wooden Shelves Used for Traditional Cheese Ripening. Applied and Environmental Microbiology, 2021, 87, e0152421.	1.4	12
74	Slow Pyrolysis as a Method for Biochar Production from Carob Waste: Process Investigation and Productsâ€™ Characterization. Energies, 2021, 14, 8457.	1.6	12
75	Reactions Occurring during the Melt Mixing of Nylon 6 and Oxazolineâ€™Cyclophosphazene Units. Macromolecules, 2009, 42, 5579-5592.	2.2	11
76	The Streptomyces coelicolor Small ORF trpM Stimulates Growth and Morphological Development and Exerts Opposite Effects on Actinorhodin and Calcium-Dependent Antibiotic Production. Frontiers in Microbiology, 2020, 11, 224.	1.5	11
77	Nanofilled Thermoplasticâ€™Thermoplastic Polymer Blends. , 2014, , 133-160.		10
78	Durability of Biodegradable Polymers for the Conservation of Cultural Heritage. Frontiers in Materials, 2019, 6, .	1.2	10
79	Compatibilization of Polypropylene/Polyamide 6 Blend Fibers Using Photo-Oxidized Polypropylene. Materials, 2019, 12, 81.	1.3	10
80	Prediction of the morphology of polymer-clay nanocomposites. Polymer Testing, 2015, 41, 149-156.	2.3	9
81	Effect of processing temperature and mixing time on the properties of PP/GnP nanocomposites. Polymer Degradation and Stability, 2020, 181, 109321.	2.7	9
82	Modification of carboxyl groups of poly(ethylene-co-acrylic acid) via facile wet chemistry method: A kinetic study. Reactive and Functional Polymers, 2010, 70, 189-200.	2.0	8
83	Effect of ultraviolet and moisture action on biodegradable polymers and their blend. Journal of Applied Biomaterials and Functional Materials, 2020, 18, 228080002092665.	0.7	8
84	A Facile and Eco-friendly Route to Fabricate Poly(Lactic Acid) Scaffolds with Graded Pore Size. Journal of Visualized Experiments, 2016, , .	0.2	7
85	â€™Compatibilizationâ€™through Elongational Flow Processing of LDPE/PA6 Blends. Materials, 2018, 11, 2375.	1.3	7
86	Polyphasic Characterization of Microbiota of â€™Mastreddaâ€™, a Traditional Wooden Tool Used during the Production of PDO Provola dei Nebrodi Cheese. Applied Sciences (Switzerland), 2021, 11, 8647.	1.3	7
87	Preparation and mechanical characterization of polycaprolactone/graphene oxide biocomposite nanofibers. AIP Conference Proceedings, 2016, , .	0.3	5
88	Structureâ€™Property Relationships in Bionanocomposites for Pipe Extrusion Applications. Polymers, 2021, 13, 782.	2.0	5
89	Investigation on the Properties and on the Photo-Oxidation Behaviour of Polypropylene/Fumed Silica Nanocomposites. Polymers, 2021, 13, 2673.	2.0	5
90	Morphology, Rheological and Mechanical Properties of Isotropic and Anisotropic PP/rPET/GnP Nanocomposite Samples. Nanomaterials, 2021, 11, 3058.	1.9	5

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91	Rheological behaviour, filmability and mechanical properties of biodegradable polymer films. AIP Conference Proceedings, 2014, , .	0.3	4
92	Incorporation of an Antibiotic in Poly(Lactic Acid) and Polypropylene by Melt Processing. Journal of Applied Biomaterials and Functional Materials, 2016, 14, e240-e247.	0.7	4
93	Biopolymer based nanocomposites reinforced with graphene nanoplatelets. AIP Conference Proceedings, 2016, , .	0.3	4
94	Graphene oxide-silica nanohybrids as fillers for PA6 based nanocomposites. , 2014, , .		2
95	In vitro Antifungal Activity of Biopolymeric Foam Activated with Carvacrol. Journal of Food Quality and Hazards Control, 0, , .	0.1	2
96	Degradation Behavior of Nanocomposite Polymer Blends. , 2014, , 423-447.		1
97	Processing-property relationships of polypropylene/ciprofloxacin fibers. AIP Conference Proceedings, 2015, , .	0.3	1
98	Rheological and mechanical properties of biodegradable nanocomposites. , 2018, , .		1
99	Fabrication of Bismuth Absorber Arrays for NTD-Ge Hard X-ray Microcalorimeters. Journal of Low Temperature Physics, 2020, 200, 336-341.	0.6	1
100	Electroplated bismuth absorbers for planar NTD-Ge sensor arrays applied to hard x-ray detection in astrophysics. , 2018, , .		1
101	Photo-oxidation Behaviour of EVA Antimicrobial Films. , 2010, , .		0
102	Antimicrobial thermoplastic materials for biomedical applications prepared by melt processing. , 2014, , .		0
103	On The Use Of Polyolefins Based Nanocomposites For Film Blowing Applications. , 0, , 243-252.		0