Ilaria Armentano

List of Publications by Year
in descending order

109	6,955	61857	60497
papers	citations	43 h-index	81 g-index

113	113	113	8290
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multifunctional bionanocomposite films of poly(lactic acid), cellulose nanocrystals and silver nanoparticles. Carbohydrate Polymers, 2012, 87, 1596-1605.	5.1	538
2	Multifunctional nanostructured PLA materials for packaging and tissue engineering. Progress in Polymer Science, 2013, 38, 1720-1747.	11.8	527
3	Sensors for sub-ppm NO2 gas detection based on carbon nanotube thin films. Applied Physics Letters, 2003, 82, 961-963.	1.5	480
4	Effects of modified cellulose nanocrystals on the barrier and migration properties of PLA nano-biocomposites. Carbohydrate Polymers, 2012, 90, 948-956.	5.1	420
5	Combined effects of cellulose nanocrystals and silver nanoparticles on the barrier and migration properties of PLA nano-biocomposites. Journal of Food Engineering, 2013, 118, 117-124.	2.7	192
6	Stem cell-biomaterial interactions for regenerative medicine. Biotechnology Advances, 2012, 30, 338-351.	6.0	179
7	PLLA-grafted cellulose nanocrystals: Role of the CNC content and grafting on the PLA bionanocomposite film properties. Carbohydrate Polymers, 2016, 142, 105-113.	5.1	167
8	NO2 gas sensitivity of carbon nanotubes obtained by plasma enhanced chemical vapor deposition. Sensors and Actuators B: Chemical, 2003, 93, 333-337.	4.0	164
9	Nano-biocomposite films with modified cellulose nanocrystals and synthesized silver nanoparticles. Carbohydrate Polymers, 2014, 101, 1122-1133.	5.1	161
10	Highly sensitive and selective sensors based on carbon nanotubes thin films for molecular detection. Diamond and Related Materials, 2004, 13, 1301-1305.	1.8	146
11	The Interaction of Bacteria with Engineered Nanostructured Polymeric Materials: A Review. Scientific World Journal, The, 2014, 2014, 1-18.	0.8	141
12	Sensors for inorganic vapor detection based on carbon nanotubes and poly(o-anisidine) nanocomposite material. Chemical Physics Letters, 2004, 383, 617-622.	1.2	132
13	Sensitivity to NO2 and cross-sensitivity analysis to NH3, ethanol and humidity of carbon nanotubes thin film prepared by PECVD. Sensors and Actuators B: Chemical, 2003, 95, 195-202.	4.0	130
14	PVA bio-nanocomposites: A new take-off using cellulose nanocrystals and PLGA nanoparticles. Carbohydrate Polymers, 2014, 99, 47-58.	5.1	126
15	Carbon nanotubes as new materials for gas sensing applications. Journal of the European Ceramic Society, 2004, 24, 1405-1408.	2.8	125
16	Role of defects on the gas sensing properties of carbon nanotubes thin films: experiment and theory. Chemical Physics Letters, 2004, 387, 356-361.	1.2	121
17	Effects of single-walled carbon nanotube incorporation on the cure reaction of epoxy resin and its detection by Raman spectroscopy. Diamond and Related Materials, 2003, 12, 827-832.	1.8	118
18	Cellulose nanocrystal based multifunctional nanohybrids. Progress in Materials Science, 2020, 112, 100668.	16.0	113

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19	Sidewall functionalization of single-walled carbon nanotubes through CF4 plasma treatment and subsequent reaction with aliphatic amines. Chemical Physics Letters, 2005, 403, 385-389.	1.2	92
20	Tuning Multi/Pluri-Potent Stem Cell Fate by Electrospun Poly(<scp>l</scp>-lactic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 Td (acid)-Ca	2.6	88
21	New multifunctional poly(lactide acid) composites: Mechanical, antibacterial, and degradation properties. Journal of Applied Polymer Science, 2012, 124, 87-98.	1.3	87
22	Bio-based PLA_PHB plasticized blend films: Processing and structural characterization. LWT - Food Science and Technology, 2015, 64, 980-988.	2.5	87
23	Reversible oxidation effects on carbon nanotubes thin films for gas sensing applications. Materials Science and Engineering C, 2003, 23, 523-529.	3.8	83
24	Nanocomposites Based on Biodegradable Polymers. Materials, 2018, 11, 795.	1.3	83
25	Dielectric behavior of epoxy matrix/single-walled carbon nanotube composites. Composites Science and Technology, 2004, 64, 23-33.	3.8	81
26	Carbon nanotubes and silver nanoparticles for multifunctional conductive biopolymer composites. Carbon, 2011, 49, 2370-2379.	5.4	76
27	Use of alginate, chitosan and cellulose nanocrystals as emulsion stabilizers in the synthesis of biodegradable polymeric nanoparticles. Journal of Colloid and Interface Science, 2015, 445, 31-39.	5.0	75
28	Effects of carbon nanotubes (CNTs) on the processing and in-vitro degradation of poly(dl-lactide-co-glycolide)/CNT films. Journal of Materials Science: Materials in Medicine, 2008, 19, 2377-2387.	1.7	73
29	Effects of oxygen annealing on gas sensing properties of carbon nanotube thin films. Thin Solid Films, 2003, 436, 95-100.	0.8	72
30	Dynamics of amine functionalized nanotubes/epoxy composites by dielectric relaxation spectroscopy. Carbon, 2004, 42, 323-329.	5.4	72
31	Functional Properties of Plasticized Bio-Based Poly(Lactic Acid)_Poly(Hydroxybutyrate) (PLA_PHB) Films for Active Food Packaging. Food and Bioprocess Technology, 2017, 10, 770-780.	2.6	72
32	Electrospun poly(Îµ-caprolactone)/Ca-deficient hydroxyapatite nanohybrids: Microstructure, mechanical properties and cell response by murine embryonic stem cells. Materials Science and Engineering C, 2009, 29, 2063-2071.	3.8	71
33	Metal Nanoparticles Embedded in Cellulose Nanocrystal Based Films: Material Properties and Post-use Analysis. Biomacromolecules, 2018, 19, 2618-2628.	2.6	62
34	Modification of fluorinated single-walled carbon nanotubes with aminosilane molecules. Carbon, 2006, 44, 2196-2201.	5.4	61
35	Adipose Stem Cell Translational Applications: From Bench-to-Bedside. International Journal of Molecular Sciences, 2018, 19, 3475.	1.8	60
36	Hydrogenated Amorphous Carbon Nanopatterned Film Designs Drive Human Bone Marrow Mesenchymal Stem Cell Cytoskeleton Architecture. Tissue Engineering - Part A, 2009, 15, 3139-3149.	1.6	57

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37	Combined Effects of Ag Nanoparticles and Oxygen Plasma Treatment on PLGA Morphological, Chemical, and Antibacterial Properties. Biomacromolecules, 2013, 14, 626-636.	2.6	52
38	Synergic Effect of Nanolignin and Metal Oxide Nanoparticles into Poly(<scp>l</scp>-lactide) Bionanocomposites: Material Properties, Antioxidant Activity, and Antibacterial Performance. ACS Applied Bio Materials, 2020, 3, 5263-5274.	2.3	52
39	PLGA/Ag nanocomposites: in vitro degradation study and silver ion release. Journal of Materials Science: Materials in Medicine, 2011, 22, 2735-2744.	1.7	50
40	Structure, gas-barrier properties and overall migration of poly(lactic acid) films coated with hydrogenated amorphous carbon layers. Carbon, 2013, 63, 274-282.	5.4	50
41	Biocompatible Poly(<scp>L</scp>â€lactide)/MWCNT Nanocomposites: Morphological Characterization, Electrical Properties, and Stem Cell Interaction. Macromolecular Bioscience, 2012, 12, 870-881.	2.1	48
42	Mechanotransduction: Tuning Stem Cells Fate. Journal of Functional Biomaterials, 2011, 2, 67-87.	1.8	46
43	Interaction of methane with carbon nanotube thin films: role of defects and oxygen adsorption. Materials Science and Engineering C, 2004, 24, 527-533.	3.8	45
44	Vacancy-Induced Chemisorption of NO2on Carbon Nanotubes:Â A Combined Theoretical and Experimental Study. Journal of Physical Chemistry B, 2005, 109, 13175-13179.	1.2	44
45	Polymer Materials for Respiratory Protection: Processing, End Use, and Testing Methods. ACS Applied Polymer Materials, 2021, 3, 531-548.	2.0	44
46	Keratins extracted from Merino wool and Brown Alpaca fibres: Thermal, mechanical and biological properties of PLLA based biocomposites. Materials Science and Engineering C, 2015, 47, 394-406.	3.8	42
47	Effects of oxygen annealing on cross sensitivity of carbon nanotubes thin films for gas sensing applications. Sensors and Actuators B: Chemical, 2004, 100, 33-40.	4.0	38
48	Toward the microstructureâ€“properties relationship in MWCNT/epoxy composites: Percolation behavior and dielectric spectroscopy. Composites Science and Technology, 2014, 96, 38-46.	3.8	38
49	Role of PLLA plasma surface modification in the interaction with human marrow stromal cells. Journal of Applied Polymer Science, 2009, 114, 3602-3611.	1.3	37
50	Enhancing Osteoconduction of PLLA-Based Nanocomposite Scaffolds for Bone Regeneration Using Different Biomimetic Signals to MSCs. International Journal of Molecular Sciences, 2012, 13, 2439-2458.	1.8	37
51	Combined effect of cellulose nanocrystals, carvacrol and oligomeric lactic acid in PLA_PHB polymeric films. Carbohydrate Polymers, 2019, 223, 115131.	5.1	35
52	Frequency dependent electrical transport between conjugated polymer and single-walled carbon nanotubes. Diamond and Related Materials, 2003, 12, 1601-1609.	1.8	34
53	Integrated PLGAâ€“Ag nanocomposite systems to control the degradation rate and antibacterial properties. Journal of Applied Polymer Science, 2013, 130, 1185-1193.	1.3	33
54	Processing and properties of poly(Îµ-caprolactone)/carbon nanofibre composite mats and films obtained by electrospinning and solvent casting. Journal of Materials Science, 2009, 44, 4789-4795.	1.7	30

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55	Novel Poly(L-lactide) PLLA/SWNTs Nanocomposites for Biomedical Applications: Material Characterization and Biocompatibility Evaluation. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 541-556.	1.9	30
56	Plasma surface modification of porous PLLA films: Analysis of surface properties and in vitro hydrolytic degradation. Journal of Applied Polymer Science, 2012, 125, E239.	1.3	30
57	Processing and characterization of nanocomposite based on poly(butylene/triethylene succinate) copolymers and cellulose nanocrystals. Carbohydrate Polymers, 2017, 165, 51-60.	5.1	30
58	Synthesis and photoelectrical properties of carbon nanotubeâ€“dendritic porphyrin light harvesting molecule systems. Diamond and Related Materials, 2007, 16, 658-663.	1.8	28
59	Analysis of the biomineralization process on SWNT-COOH and F-SWNT films. Materials Science and Engineering C, 2008, 28, 1522-1529.	3.8	28
60	Protein Encapsulation in Biodegradable Polymeric Nanoparticles: Morphology, Fluorescence Behaviour and Stem Cell Uptake. Macromolecular Bioscience, 2013, 13, 1204-1212.	2.1	27
61	Relationship between morphology and electrical properties in PP/MWCNT composites: Processing-induced anisotropic percolation threshold. Materials Chemistry and Physics, 2016, 180, 284-290.	2.0	27
62	Microstructure and Cytocompatibility of Electrospun Nanocomposites Based on Poly(É›-Caprolactone) and Carbon Nanostructures. International Journal of Artificial Organs, 2010, 33, 271-282.	0.7	26
63	Surface Hydrophilicity of Poly(l-Lactide) Acid Polymer Film Changes the Human Adult Adipose Stem Cell Architecture. Polymers, 2018, 10, 140.	2.0	26
64	Morphological and thermal behavior of porous biopolymeric nanoparticles. European Polymer Journal, 2012, 48, 1152-1159.	2.6	25
65	Antimicrobial Properties and Cytocompatibility of PLGA/Ag Nanocomposites. Materials, 2016, 9, 37.	1.3	25
66	In-vitro degradation of PLGA nanoparticles in aqueous medium and in stem cell cultures by monitoring the cargo fluorescence spectrum. Polymer Degradation and Stability, 2016, 134, 296-304.	2.7	25
67	Thermal and bio-disintegration properties of poly(lactic acid)/natural rubber/organoclay nanocomposites. Applied Clay Science, 2014, 93-94, 78-84.	2.6	24
68	Spin coated cellulose nanocrystal/silver nanoparticle films. Carbohydrate Polymers, 2014, 113, 394-402.	5.1	23
69	Design of a nanocomposite substrate inducing adult stem cell assembly and progression toward an Epiblast-like or Primitive Endoderm-like phenotype via mechanotransduction. Biomaterials, 2017, 144, 211-229.	5.7	23
70	Recent Advances in Nanocomposites Based on Aliphatic Polyesters: Design, Synthesis, and Applications in Regenerative Medicine. Applied Sciences (Switzerland), 2018, 8, 1452.	1.3	21
71	Multifunctional ternary composite films based on PLA and Ag/alginate microbeads: Physical characterization and silver release kinetics. Materials Science and Engineering C, 2019, 98, 1159-1168.	3.8	20
72	Effects of fluorine incorporation on the properties of amorphous carbon/p-type crystalline silicon heterojunction diodes. Journal of Non-Crystalline Solids, 2003, 321, 175-182.	1.5	19

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73	A deeper understanding of the photodesorption mechanism of aligned carbon nanotube thin films by impedance spectroscopy. Thin Solid Films, 2004, 449, 105-112.	0.8	17
74	Chemical gating and photoconductivity of CF4 plasma-functionalized single-walled carbon nanotubes with adsorbed butylamine. Journal of Applied Physics, 2005, 97, 114320.	1.1	17
75	Dielectric Spectroscopy of PP/MWCNT Nanocomposites: Relationship with Crystalline Structure and Injection Molding Condition. Nanomaterials, 2021, 11, 550.	1.9	17
76	Selective interaction of single-walled carbon nanotubes with conducting dendrimer. Diamond and Related Materials, 2006, 15, 95-99.	1.8	16
77	Production and properties of solventâ€cast poly(Îµâ€caprolactone) composites with carbon nanostructures. Journal of Applied Polymer Science, 2011, 119, 3544-3552.	1.3	16
78	Pulsed plasma-induced alignment of carbon nanotubes. Materials Letters, 2003, 57, 3699-3704.	1.3	14
79	Electrically switchable carbon nanotubes hydrophobic surfaces. Diamond and Related Materials, 2005, 14, 121-124.	1.8	14
80	Enhancement of photoelectrical properties in polymer nanocomposites containing modified single-walled carbon nanotubes by conducting dendrimer. Journal of Applied Physics, 2006, 99, 114305.	1.1	14
81	Biodegradable Composite Scaffolds: A Strategy to Modulate Stem Cell Behaviour. Recent Patents on Drug Delivery and Formulation, 2013, 7, 9-17.	2.1	14
82	Effect of processing techniques on the 3<scp>D</scp> microstructure of poly (<scp>l</scp>â€lactic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Science, 2015, 132, .	1.3	14
83	Effect of Injection Molding Conditions on Crystalline Structure and Electrical Resistivity of PP/MWCNT Nanocomposites. Polymers, 2020, 12, 1685.	2.0	14
84	AC conductivity of conjugated polymer onto self-assembled aligned carbon nanotubes. Diamond and Related Materials, 2004, 13, 250-255.	1.8	13
85	Effect of catalyst layer thickness and Ar dilution on the plasma deposition of multi-walled carbon nanotubes. Diamond and Related Materials, 2003, 12, 821-826.	1.8	12
86	Design, development and characterization of a nanomagnetic system based on iron oxide nanoparticles encapsulated in PLLA-nanospheres. European Polymer Journal, 2015, 62, 145-154.	2.6	12
87	Processing, thermo-mechanical characterization and gas permeability of thermoplastic starch/poly(butylene trans-1,4-cyclohexanedicarboxylate) blends. Polymer Degradation and Stability, 2018, 157, 100-107.	2.7	12
88	Electrical transport properties of conjugated polymer onto self-assembled aligned carbon nanotubes. Diamond and Related Materials, 2003, 12, 1524-1531.	1.8	11
89	Nanostructured polystyrene films engineered by plasma processes: Surface characterization and stem cell interaction. Journal of Applied Polymer Science, 2014, 131, .	1.3	11
90	Cellulose nano-biocomposites from high oleic sunflower oil-derived thermosets. European Polymer Journal, 2016, 79, 109-120.	2.6	11

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91	Recycled leather cutting waste-based boards: thermal, acoustic, hygrothermal and ignitability properties. Journal of Material Cycles and Waste Management, 2020, 22, 1339-1351.	1.6	11
92	Controllable fabrication of aligned carbon nanotubes by pulsed plasma: selective positioning and electrical transport phenomena. Materials Letters, 2004, 58, 470-473.	1.3	10
93	Interaction of oxygen with nanocomposites made of n-type conducting polymers and carbon nanotubes: role of charge transfer complex formation between nanotubes and poly(3-octylthiophene). Thin Solid Films, 2005, 476, 162-167.	0.8	9
94	Multifunctional antimicrobial nanocomposites for food packaging applications. , 2017, , 265-303.		9
95	Unpatterned Bioactive Poly(Butylene 1,4-Cyclohexanedicarboxylate)-Based Film Fast Induced Neuronal-Like Differentiation of Human Bone Marrow-Mesenchymal Stem Cells. International Journal of Molecular Sciences, 2020, 21, 9274.	1.8	9
96	Nanostructured Biopolymer-based Materials for Regenerative Medicine Applications. Current Organic Chemistry, 2018, 22, 1193-1204.	0.9	9
97	Synthesis and electrical properties of CdS Langmuirâ€“Blodgett multilayers nanoparticles on self-assembled carbon nanotubes. Chemical Physics Letters, 2004, 392, 214-219.	1.2	8
98	Effect of SWCNT introduction in random copolymers on material properties and fibroblast long term culture stability. Polymer Degradation and Stability, 2016, 132, 220-230.	2.7	8
99	Inclusion of PLLA nanoparticles in thermosensitive semi-interpenetrating polymer networks. Polymer Degradation and Stability, 2014, 108, 280-287.	2.7	7
100	Nanocomposites Based on PLLA and Multi Walled Carbon Nanotubes Support the Myogenic Differentiation of Murine Myoblast Cell Line. ISRN Tissue Engineering, 2013, 2013, 1-8.	0.5	6
101	Effect of SWCNT Content and Water Vapor Adsorption on the Electrical Properties of Cellulose Nanocrystal-Based Nanohybrids. Journal of Physical Chemistry C, 2020, 124, 14901-14910.	1.5	6
102	Improving the flexibility and compostability of starch/poly(butylene cyclohexanedicarboxylate)-based blends. Carbohydrate Polymers, 2020, 246, 116631.	5.1	6
103	Dielectric properties at microwave frequencies of poly(É›-caprolactone)/CNF films and electrospun mats. Synthetic Metals, 2011, 161, 911-918.	2.1	5
104	Effect of Filler Morphology on the Electrical and Thermal Conductivity of PP/Carbon-Based Nanocomposites. Journal of Composites Science, 2021, 5, 196.	1.4	5
105	Microstructure and cytocompatibility of electrospun nanocomposites based on poly(epsilon-caprolactone) and carbon nanostructures. International Journal of Artificial Organs, 2010, 33, 271-82.	0.7	4
106	Multifunctional nanostructured biopolymeric materials for therapeutic applications. , 2017, , 107-135.		1
107	Biodegradable Composite Scaffolds: A Strategy to Modulate Stem Cell Behaviour. Recent Patents on Drug Delivery and Formulation, 2012, 7, 9-17.	2.1	0
108	Recent Advances in Conductive Composites Based on Biodegradable Polymers for Regenerative Medicine Applications. , 2017, , 519-542.		0

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109	Skin Tissue Engineering. , 2017, , 1408-1423.		0