Vincenzo La Carrubba

List of Publications by Year
in descending order

94 papers	1,431 citations	331670 21 h-index	395702 33 g-index
96 all docs	96 docs citations	96 times ranked	1553 citing authors

#	Article	IF	Citations
1	An experimental methodology to study polymer crystallization under processing conditions. The influence of high cooling rates. Chemical Engineering Science, 2002, 57, 4129-4143.	3.8	125
2	Polymeric scaffolds prepared via thermally induced phase separation: Tuning of structure and morphology. Journal of Biomedical Materials Research - Part A, 2008, 86A, 459-466.	4.0	86
3	Poly-l-Lactic Acid (PLLA)-Based Biomaterials for Regenerative Medicine: A Review on Processing and Applications. Polymers, 2022, 14, 1153.	4.5	76
4	PLLA scaffolds produced by thermally induced phase separation (TIPS) allow human chondrocyte growth and extracellular matrix formation dependent on pore size. Materials Science and Engineering C, 2017, 80, 449-459.	7.3	73
5	Preparation of polymeric foams with a pore size gradient via Thermally Induced Phase Separation (TIPS). Materials Letters, 2015, 160, 31-33.	2.6	51
6	Effect of hydroxyapatite concentration and size on morpho-mechanical properties of PLA-based randomly oriented and aligned electrospun nanofibrous mats. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 101, 103449.	3.1	51
7	Polylactic is a Sustainable, Low Absorption, Low Autofluorescence Alternative to Other Plastics for Microfluidic and Organ-on-Chip Applications. Analytical Chemistry, 2020, 92, 6693-6701.	6.5	50
8	Preparation, characterization and in vitro test of composites poly-lactic acid/hydroxyapatite scaffolds for bone tissue engineering. International Journal of Biological Macromolecules, 2018, 119, 945-953.	7.5	40
9	Polylactide-based materials science strategies to improve tissue-material interface without the use of growth factors or other biological molecules. Materials Science and Engineering C, 2019, 94, 1083-1101.	7.3	34
10	Peltier cells as temperature control elements: Experimental characterization and modeling. Applied Thermal Engineering, 2014, 63, 234-245.	6.0	30
11	A Versatile Technique to Produce Porous Polymeric Scaffolds: The Thermally Induced Phase Separation (TIPS) Method. Archives in Chemical Research, 2017, 01, .	0.3	30
12	Solution-Based Processing for Scaffold Fabrication in Tissue Engineering Applications: A Brief Review. Polymers, 2021, 13, 2041.	4.5	30
13	PLLA/PLA scaffolds prepared via Thermally Induced Phase Separation (TIPS): tuning of properties and biodegradability. International Journal of Material Forming, 2008, 1, 619-622.	2.0	28
14	In vitro degradation and bioactivity of composite poly-l-lactic (PLLA)/bioactive glass (BG) scaffolds: comparison of 45S5 and 1393BG compositions. Journal of Materials Science, 2018, 53, 2362-2374.	3.7	28
15	Isotactic polypropylene solidification under pressure and high cooling rates. A master curve approach. Polymer Engineering and Science, 2000, 40, 2430-2441.	3.1	26
16	Core-shell PLA/Kef hybrid scaffolds for skin tissue engineering applications prepared by direct kefiran coating on PLA electrospun fibers optimized via air-plasma treatment. Materials Science and Engineering C, 2021, 127, 112248.	7.3	26
17	Phenomenological approach to compare the crystallization kinetics of isotactic polypropylene and polyamide-6 under pressure. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 153-175.	2.1	24
18	PLLA scaffolds with controlled architecture as potential microenvironment for in vitro tumor model. Tissue and Cell, 2019, 58, 33-41.	2.2	23

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19	Polymeric scaffolds based on blends of poly-l-lactic acid (PLLA) with poly-d-l-lactic acid (PLA) prepared via thermally induced phase separation (TIPS): demixing conditions and morphology. Polymer Bulletin, 2013, 70, 563-578.	3.3	22
20	Evidence of mechanisms occurring in thermally induced phase separation of polymeric systems. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 979-983.	2.1	22
21	Improvement of osteogenic differentiation of human mesenchymal stem cells on composite poly l-lactic acid/nano-hydroxyapatite scaffolds for bone defect repair. Journal of Bioscience and Bioengineering, 2020, 129, 250-257.	2.2	22
22	Crystallization kinetics of iPP: Influence of operating conditions and molecular parameters. Journal of Applied Polymer Science, 2007, 104, 1358-1367.	2.6	21
23	Engineering approaches in siRNA delivery. International Journal of Pharmaceutics, 2017, 525, 343-358.	5.2	21
24	Preparation and properties of poly(L-lactic acid) scaffolds by thermally induced phase separation from a ternary polymer-solvent system. Polymer International, 2004, 53, 2079-2085.	3.1	19
25	Noâ€flow temperature in injection molding simulation. Journal of Applied Polymer Science, 2011, 119, 3382-3392.	2.6	19
26	Physical and biological properties of electrospun poly(<scp>d</scp>,<scp>l</scp>â€lactide)/nanoclay and poly(<scp>d</scp>,<scp>l</scp>â€lactide)/nanosilica nanofibrous scaffold for bone tissue engineering. Journal of Biomedical Materials Research - Part A, 2021, 109, 2120-2136.	4.0	19
27	Synthesis, characterization and foaming of PHEAâ€“PLLA, a new graft copolymer for biomedical engineering. Materials Science and Engineering C, 2014, 41, 301-308.	7.3	18
28	Chitosan-Coating Deposition via Galvanic Coupling. ACS Biomaterials Science and Engineering, 2019, 5, 1715-1724.	5.2	17
29	Occurrence of Microplastics in Waste Sludge of Wastewater Treatment Plants: Comparison between Membrane Bioreactor (MBR) and Conventional Activated Sludge (CAS) Technologies. Membranes, 2022, 12, 371.	3.0	17
30	Tuning of biodegradation rate of PLLA scaffolds via blending with PLA. International Journal of Material Forming, 2009, 2, 713-716.	2.0	16
31	Polyâ€leftâ€lactic acid tubular scaffolds via diffusion induced phase separation: Control of morphology. Polymer Engineering and Science, 2013, 53, 431-442.	3.1	16
32	Modulation of physical and biological properties of a composite PLLA and polyaspartamide derivative obtained via thermally induced phase separation (TIPS) technique. Materials Science and Engineering C, 2016, 67, 561-569.	7.3	16
33	Morphology and thermal properties of foams prepared via thermally induced phase separation based on polylactic acid blends. Journal of Cellular Plastics, 2012, 48, 399-407.	2.4	15
34	Measurement of cloud point temperature in polymer solutions. Review of Scientific Instruments, 2013, 84, 075118.	1.3	14
35	Combining carvacrol and nisin in biodegradable films for antibacterial packaging applications. International Journal of Biological Macromolecules, 2021, 193, 117-126.	7.5	14
36	Influence ofâ€œcontrolled processing conditionsâ€•on the solidification of iPP, PET and PA6. Macromolecular Symposia, 2002, 180, 43-60.	0.7	13

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37	Phase separation of polymer blends in solution: A case study. European Polymer Journal, 2016, 79, 176-186.	5.4	13
38	Polymer Solidification under Pressure and High Cooling Rates. International Polymer Processing, 2000, 15, 103-110.	0.5	11
39	Some features of polymeric membranes for water purification via membrane distillation. Journal of Applied Polymer Science, 2011, 122, 3557-3563.	2.6	11
40	Coagulation bath composition and desiccation environment as tuning parameters to prepare skinless membranes via diffusion induced phase separation. Journal of Applied Polymer Science, 2015, 132, .	2.6	11
41	Human nasoseptal chondrocytes maintain their differentiated phenotype on PLLA scaffolds produced by thermally induced phase separation and supplemented with bioactive glass 1393. Connective Tissue Research, 2019, 60, 344-357.	2.3	11
42	The solidification behavior of a PBT/PET blend over a wide range of cooling rate. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 799-810.	2.1	10
43	The continuous cooling transformation (CCT) as a flexible tool to investigate polymer crystallization under processing conditions. Advances in Polymer Technology, 2009, 28, 86-119.	1.7	9
44	Porous poly (L-lactic acid) scaffolds are optimal substrates for internal colonization by A6 mesoangioblasts and immunocytochemical analyses. Journal of Biosciences, 2009, 34, 873-879.	1.1	9
45	Characterization of Hydrophobic Polymeric Membranes for Membrane Distillation Process. International Journal of Material Forming, 2010, 3, 563-566.	2.0	9
46	Development of injectable and durable kefiran hydro-alcoholic gels. International Journal of Biological Macromolecules, 2020, 149, 309-319.	7.5	9
47	Orientation and Crystallinity Measurements in Film Casting Products. Polymer Bulletin, 2003, 50, 413-420.	3.3	8
48	The use of master curves to describe the simultaneous effect of cooling rate and pressure on polymer crystallization. Polymer International, 2004, 53, 61-68.	3.1	8
49	Valorisation of Dairy Wastes Through Kefir Grain Production. Waste and Biomass Valorization, 2020, 11, 3979-3985.	3.4	8
50	Calcium phosphate/polyvinyl acetate coatings on SS304 via galvanic co-deposition for orthopedic implant applications. Surface and Coatings Technology, 2021, 408, 126771.	4.8	8
51	Integrated production of biopolymers with industrial wastewater treatment: Effects of OLR on process yields, biopolymers characteristics and mixed microbial community enrichment. Journal of Water Process Engineering, 2022, 47, 102772.	5.6	8
52	The Use of the Indentation Test for Studying the Solidification Behaviour of Different Semicrystalline Polymers during Injection Molding. Macromolecular Materials and Engineering, 2005, 290, 1056-1062.	3.6	7
53	Solidification of syndiotactic polystyrene by a continuous cooling transformation approach. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 2688-2699.	2.1	7
54	Dependence of Coefficient of volumetric thermal expansion (CVTE) of glass fiber reinforced (GFR) polymers on the glass fiber content. Polymer Bulletin, 2008, 59, 813-824.	3.3	7

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55	Lattice fluid model generalized for specific interactions: An application to ternary polymer solutions. Fluid Phase Equilibria, 2011, 312, 60-65.	2.5	7
56	Engineered Membranes for Residual Cell Trapping on Microfluidic Blood Plasma Separation Systems: A Comparison between Porous and Nanofibrous Membranes. Membranes, 2021, 11, 680.	3.0	7
57	Evaluation of vapor mass transfer in various membrane distillation configurations: an experimental study. Heat and Mass Transfer, 2012, 48, 945-952.	2.1	6
58	Evaluation of mechanical and morphologic features of PLLA membranes as supports for perfusion cells culture systems. Materials Science and Engineering C, 2016, 69, 841-849.	7.3	6
59	A High-Throughput Mechanical Activator for Cartilage Engineering Enables Rapid Screening of in vitro Response of Tissue Models to Physiological and Supra-Physiological Loads. Cells Tissues Organs, 2022, 211, 670-688.	2.3	6
60	PLLA/Fibrin Tubular Scaffold: A New Way for Reliable Endothelial Cell Seeding. Conference Papers in Science, 2014, 2014, 1-5.	0.3	6
61	Study on heat transfer coefficients during cooling of PET bottles for food beverages. Heat and Mass Transfer, 2016, 52, 1479-1488.	2.1	5
62	Porous Biomaterials and Scaffolds for Tissue Engineering. , 2019, , 188-202.		5
63	Co-Deposition and Characterization of Hydroxyapatite-Chitosan and Hydroxyapatite-Polyvinylacetate Coatings on 304 SS for Biomedical Devices. Key Engineering Materials, 0, 813, 153-158.	0.4	5
64	Effect of Polyhydroxyalkanoate (PHA) Concentration on Polymeric Scaffolds Based on Blends of Poly-L-Lactic Acid (PLLA) and PHA Prepared via Thermally Induced Phase Separation (TIPS). Polymers, 2022, 14, 2494.	4.5	5
65	Effect of pressure on the PVT behaviour of iPP as revealed by dilatometric measurements. Polymer Bulletin, 2002, 49, 159-164.	3.3	4
66	Indentation test as a tool for monitoring the solidification process during injection molding. Journal of Applied Polymer Science, 2003, 89, 3713-3727.	2.6	4
67	A Composite PLLA Scaffold for Regeneration of Complex Tissues. International Journal of Material Forming, 2010, 3, 571-574.	2.0	4
68	A poly-L-lactic acid/ collagen/glycosaminoglycan matrix for tissue engineering applications. Journal of Cellular Plastics, 2017, 53, 537-549.	2.4	4
69	Establishment of a pulmonary epithelial barrier on biodegradable poly-L-lactic-acid membranes. PLoS ONE, 2019, 14, e0210830.	2.5	4
70	Tubular scaffold for vascular tissue engineering application. International Journal of Material Forming, 2010, 3, 567-570.	2.0	3
71	Double Flow Bioreactor for In Vitro Test of Drug Delivery. Current Drug Delivery, 2016, 13, 1-1.	1.6	3
72	Mathematical and numerical modeling of an airlift perfusion bioreactor for tissue engineering applications. Biochemical Engineering Journal, 2022, 178, 108298.	3.6	3

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73	PLLA biodegradable scaffolds for angiogenesis via Diffusion Induced Phase Separation (DIPS). International Journal of Material Forming, 2008, 1, 623-626.	2.0	2
74	Demixing Time and Temperature Influence on Porosity and Interconnection of PLLA Scaffolds Prepared via TIPS. Macromolecular Symposia, 2009, 286, 49-52.	0.7	2
75	On the calculation of free energy of mixing for aqueous polymer solutions with group-contribution models. Fluid Phase Equilibria, 2010, 299, 222-228.	2.5	2
76	Characterization of PLLA scaffolds for biomedical applications. International Journal of Polymeric Materials and Polymeric Biomaterials, 2017, 66, 469-477.	3.4	2
77	Blend scaffolds with polyaspartamide/polyester structure fabricated via TIPS and their RGDC functionalization to promote osteoblast adhesion and proliferation. Journal of Biomedical Materials Research - Part A, 2019, 107, 2726-2735.	4.0	2
78	Novel dual-flow perfusion bioreactor for in vitro pre-screening of nanoparticles delivery: design, characterization and testing. Bioprocess and Biosystems Engineering, 2021, 44, 2361-2374.	3.4	2
79	Heteroatom-Doping for Carbon Dots: An Efficient Strategy to Improve Their Optoelectronic Properties. ECS Meeting Abstracts, 2020, MA2020-01, 1087-1087.	0.0	2
80	A dynamic airâ€"liquid interface system for in vitro mimicking of the nasal mucosa. Biotechnology and Bioengineering, 2022, , .	3.3	2
81	Tailoring PLLA scaffolds for tissue engineering applications: Morphologies for 2D and 3D cell cultures. International Journal of Material Forming, 2009, 2, 717-720.	2.0	1
82	Water Fluxes in Polymeric Membranes for Desalination via Membrane Distillation. AIP Conference Proceedings, 2010, , .	0.4	1
83	No-flow temperature and solidification in injection molding simulation. , 2011, , .		1
84	PHEA-PLLA: A New Polymer Blend For Tissue Engineering Applications. , 2011, , .		1
85	Poly lactic acid based foams prepared via thermally induced phase separation (TIPS): A method to tune the crystallinity. AIP Conference Proceedings, 2012, , .	0.4	1
86	Biological evaluation of PLLA membranes, with different pore diameters, to stimulate cell adhesion and growth in vitro. AIP Conference Proceedings, 2015, , .	0.4	1
87	Composite Scaffolds with a Hydrohyapatite Spatial Gradient for Osteochondral Defect Repair. , 2018, , .		1
88	3D polymeric supports promote the growth and progression of anaplastic thyroid carcinoma. Biochemical and Biophysical Research Communications, 2020, 531, 223-227.	2.1	1
89	A Comparative Study of Crystallization of iPP and PA6 under Pressure. International Journal of Forming Processes, 2001, 4, 511-534.	0.3	1
90	Modeling and experimental approaches for the characterization of phase equilibria in polymer solutions. , 2012, , .		0

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91	Design, build-up and optimization of a fast quenching device for polymeric thin film. , 2014, , .		0
92	Optical characterization of phase transitions in pure polymers and blends. AIP Conference Proceedings, 2015, , .	0.4	0
93	LIAC Meeting on Vascular Research 2013. Conference Papers in Science, 2015, 2015, 1-2.	0.3	0
94	Polmunary epithelial barrier formation on biodegradable poly-L-lactic-acid (PLLA) membrane. , 2016, , .		0