Alan E Tonelli

List of Publications by Year
in descending order

77 papers	2,968 citations	172207 29 h-index	174990 52 g-index
77 all docs	77 docs citations	77 times ranked	2754 citing authors

#	Article	IF	Citations
1	Chitosan based hydrogels and their applications for drug delivery in wound dressings: A review. Carbohydrate Polymers, 2018, 199, 445-460.	5.1	553
2	Inclusion Compound Formation with a New Columnar Cyclodextrin Host. Langmuir, 2002, 18, 10016-10023.	1.6	167
3	Polymerâ˘Cyclodextrin Inclusion Compounds:Â Toward New Aspects of Their Inclusion Mechanism. Macromolecules, 2001, 34, 1318-1322.	2.2	148
4	Chitosan based bioadhesives for biomedical applications: A review. Carbohydrate Polymers, 2022, 282, 119100.	5.1	97
5	Crystalline Cyclodextrin Inclusion Compounds Formed with Aromatic Guests:â€‰ Guest-Dependent Stoichiometries and Hydration-Sensitive Crystal Structures. Crystal Growth and Design, 2006, 6, 1113-1119.	1.4	94
6	Competitive Formation of Polymerâ˘Cyclodextrin Inclusion Compounds. Macromolecules, 2003, 36, 2742-2747.	2.2	72
7	Calculation of the Intramolecular Contribution to the Entropy of Fusion in Crystalline Polymers. Journal of Chemical Physics, 1970, 52, 4749-4751.	1.2	70
8	Hierarchical multi-component nanofiber separators for lithium polysulfide capture in lithiumâ€"sulfur batteries: an experimental and molecular modeling study. Journal of Materials Chemistry A, 2016, 4, 13572-13581.	5.2	66
9	Analytical techniques for characterizing cyclodextrins and their inclusion complexes with large and small molecular weight guest molecules. Polymer Testing, 2017, 62, 402-439.	2.3	66
10	Fabrication and Characterization of Poly(Îµ-caprolactone)/Î±-Cyclodextrin Pseudorotaxane Nanofibers. Biomacromolecules, 2016, 17, 271-279.	2.6	65
11	Solid-State Complexation of Poly(Ethylene Glycol) with Î±â˘Cyclodextrin. Macromolecules, 2005, 38, 537-541.	2.2	64
12	Polymer Inclusion Compounds. Journal of Macromolecular Science - Reviews in Macromolecular Chemistry and Physics, 1998, 38, 781-837.	2.2	62
13	Melting and Crystallization Behaviors of Biodegradable Polymers Enzymatically Coalesced from Their Cyclodextrin Inclusion Complexes. Biomacromolecules, 2003, 4, 783-792.	2.6	57
14	Poly(Îµ-caprolactone) Nanowebs Functionalized with Î±- and Î³-Cyclodextrins. Biomacromolecules, 2014, 15, 4122-4133.	2.6	56
15	Enhanced mechanical properties of poly (Îµ-caprolactone) nanofibers produced by the addition of non-stoichiometric inclusion complexes of poly (Îµ-caprolactone) and Î±-cyclodextrin. Polymer, 2015, 76, 321-330.	1.8	53
16	Laser Scanning Confocal Microscopy Study of Dye Diffusion in Fibers. Macromolecules, 2000, 33, 4478-4485.	2.2	52
17	Structure, Conformation, and Motions of Poly(ethylene oxide) and Poly(ethylene glycol) in Their Urea Inclusion Compounds. Macromolecules, 1996, 29, 263-267.	2.2	51
18	Reorganization and improvement of bulk polymers by processing with their cyclodextrin inclusion compounds. Polymer, 2005, 46, 4762-4775.	1.8	50

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19	Conformational Characteristics and Flexibility of Poly(2,6-disubstituted-1,4-phenylene oxides) and the Polycarbonate of Diphenylol-2,2'-propane. Macromolecules, 1972, 5, 558-562.	2.2	49
20	Solution rheology of hydrophobically modified associative polymers: Effects of backbone composition and hydrophobe concentration. Journal of Rheology, 2004, 48, 979-994.	1.3	49
21	Cyclodextrin-based nanostructures. Progress in Materials Science, 2022, 124, 100869.	16.0	48
22	Efficient wound odor removal by Î²â€cyclodextrin functionalized poly (Îµâ€caprolactone) nanofibers. Journal of Applied Polymer Science, 2015, 132, .	1.3	43
23	Chitosan-based hydrogels loading with thyme oil cyclodextrin inclusion compounds: From preparation to characterization. European Polymer Journal, 2020, 122, 109303.	2.6	40
24	Preparation and Characterization of Chitosanâ€"Alginate Polyelectrolyte Complexes Loaded with Antibacterial Thyme Oil Nanoemulsions. Applied Sciences (Switzerland), 2019, 9, 3933.	1.3	38
25	Preparation and characterization of chitosan based hydrogels containing cyclodextrin inclusion compounds or nanoemulsions of thyme oil. Polymer International, 2019, 68, 1891-1902.	1.6	35
26	Possible Molecular Origin of Sequence Distribution-Glass Transition Effects in Copolymers. Macromolecules, 1974, 7, 632-634.	2.2	34
27	Fabrication of Inclusion Compounds with Solid Host Î³-Cyclodextrins and Water-Soluble Guest Polymers:Â Inclusion of Poly(N-acylethylenimine)s in Î³-Cyclodextrin Channels As Monitored by Solution1H NMR. Macromolecules, 2004, 37, 6898-6903.	2.2	33
28	Contribution of the Conformational Specific Heat of Polymer Chains to the Specific Heat Difference between Liquid and Glass. Macromolecules, 1978, 11, 114-117.	2.2	31
29	Conformations and motions of polyethylene and poly(oxyethylene) chains confined to channels. Macromolecules, 1990, 23, 3134-3137.	2.2	30
30	Behavior of Poly(Îµ-caprolactone)s (PCLs) Coalesced from Their Stoichiometric Urea Inclusion Compounds and Their Use as Nucleants for Crystallizing PCL Melts: Dependence on PCL Molecular Weights. Macromolecules, 2012, 45, 2835-2840.	2.2	30
31	Possible Characterization of Homopolymer Configuration and Copolymer Sequence Distribution by Comparison of Measured and Calculated Molar Kerr Constants. Macromolecules, 1977, 10, 153-157.	2.2	28
32	Crystalline polymer inclusion compounds: potential models for the behaviour of polymer chains in their bulk, ordered phases. Polymer, 1994, 35, 573-579.	1.8	28
33	Estimation of the poly (Îµ-caprolactone) [PCL] and Î±-cyclodextrin [Î±-CD] stoichiometric ratios in their inclusion complexes [ICs], and evaluation of porosity and fiber alignment in PCL nanofibers containing these ICs. Data in Brief, 2015, 5, 1048-1055.	0.5	28
34	Reorganization of poly(ethylene terephthalate) structures and conformations to alter properties. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 735-746.	2.4	27
35	Intramolecular and Intermolecular Contributions to the Fusion of Linear Aliphatic Polyesters and Polyamides and Their Effects on the Observed Differences in Polyester and Polyamide Melting Temperatures. Journal of Chemical Physics, 1971, 54, 4637-4641.	1.2	26
36	Unique morphological and thermal behaviors of reorganized poly(ethylene terephthalates). Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 386-394.	2.4	26

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37	Restructuring polymers via nanoconfinement and subsequent release. Beilstein Journal of Organic Chemistry, 2012, 8, 1318-1332.	1.3	26
38	Polylactides in channels. Macromolecules, 1992, 25, 3581-3584.	2.2	25
39	Synthesis and gas barrier characterization of poly(ethylene isophthalate). Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 4247-4254.	2.4	25
40	Polymers coalesced from their cyclodextrin inclusion complexes: What can they tell us about the morphology of melt-crystallized polymers?. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 813-823.	2.4	24
41	Kerr effect and dielectric study of the copolymer poly(styrene-co-p-halogenated styrene). Macromolecules, 1982, 15, 866-869.	2.2	23
42	Sequence Distribution-Glass Transition Effects in Copolymers of Vinyl Chloride and Vinylidene Chloride with Methyl Acrylate. Macromolecules, 1975, 8, 544-547.	2.2	22
43	Coalesced Poly(Îµ-caprolactone) Fibers Are Stronger. Biomacromolecules, 2015, 16, 890-893.	2.6	22
44	A Case for Characterizing Polymers with the Kerr Effect. Macromolecules, 2009, 42, 3830-3840.	2.2	21
45	Correlation of the stoichiometries of poly(Îµ-caprolactone) and Î±-cyclodextrin pseudorotaxanes with their solution rheology and the molecular orientation, crystallite size, and thermomechanical properties of their nanofibers. RSC Advances, 2016, 6, 111326-111336.	1.7	18
46	Kerr Effect Studies of the Poly(oxyethylenes). Macromolecules, 1977, 10, 859-862.	2.2	17
47	Intramolecular Interactions as the Source of Sequence Distribution-Glass Transition Effects and Dilute Solution Properties of Styrene-Methyl Methacrylate Copolymers. Macromolecules, 1977, 10, 633-635.	2.2	17
48	Improving Poly(ethylene terephthalate) Through Selfâ€nucleation. Macromolecular Materials and Engineering, 2013, 298, 1190-1200.	1.7	17
49	NMR observation of the conformations and motions of polymers confined to the narrow channels of their inclusion compounds. Macromolecular Symposia, 1999, 138, 21-40.	0.4	16
50	The influence of a contaminant in commercial PMMA: A purification method for its removal and its consequences. Polymer, 2018, 135, 355-361.	1.8	16
51	Single-component poly(Îµ-caprolactone) composites. Polymer, 2013, 54, 5747-5753.	1.8	15
52	Glass Transition Temperatures of Styrene/4-BrStyrene Copolymers with Variable Co-Monomer Compositions and Sequence Distributions. Macromolecules, 2010, 43, 6912-6914.	2.2	14
53	Formation of crystalline inclusion compounds of poly (vinyl chloride) of different stereoregularity with Î³-cyclodextrin. Journal of Polymer Science Part A, 2007, 45, 2503-2513.	2.5	13
54	Beyond microstructures: Using the Kerr Effect to characterize the macrostructures of synthetic polymers. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 155-166.	2.4	13

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55	Reorganizing Polymer Chains with Cyclodextrins. Polymers, 2017, 9, 673.	2.0	13
56	Role of Local Polymer Conformations on the Diverging Glass Transition Temperatures and Dynamic Fragilities of Isotactic-, Syndiotactic-, and Atactic-Poly(methyl methacrylate)s. Macromolecules, 2019, 52, 3897-3908.	2.2	13
57	Effect of clinoptilolite on structure and drug release behavior of chitosan/thyme oil <scp>Î³â€Cyclodextrin</scp> inclusion compound hydrogels. Journal of Applied Polymer Science, 2021, 138, 49822.	1.3	11
58	Ring-opening polymerization of the cyclic dimer of poly(trimethylene terephthalate). Journal of Polymer Science Part A, 2006, 44, 6801-6809.	2.5	9
59	Reorganization of the chain packing between poly(ethylene isophthalate) chains via coalescence from their inclusion compound formed with Î³-cyclodextrin. Journal of Applied Polymer Science, 2006, 102, 6049-6053.	1.3	9
60	Glassâ€transition temperatures of nanostructured amorphous bulk polymers and their blends. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1041-1050.	2.4	9
61	The glass transition temperatures of amorphous linear aliphatic polyesters. Polymer, 2017, 124, 235-245.	1.8	9
62	Do we need to know and can we determine the complete macrostructures of synthetic polymers?. Progress in Polymer Science, 2017, 65, 42-52.	11.8	9
63	Cyclodextrin inclusion complex formation with butylated hydroxytoluene and its application in polyethylene film. Journal of Applied Polymer Science, 2010, 118, 1184-1190.	1.3	8
64	Chitosan/Graphene Oxide Composite Films and Their Biomedical and Drug Delivery Applications: A Review. Applied Sciences (Switzerland), 2021, 11, 7776.	1.3	8
65	Kerr effect and dielectric study of poly(vinyl bromide) oligomers. Macromolecules, 1985, 18, 2324-2326.	2.2	7
66	Characterizing polymers with heterogeneous micro- and macrostructures. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 409-414.	2.4	7
67	Structural investigations of the poly(Îµ-caprolactam)â€“urea inclusion compound. Polymer, 2002, 43, 3969-3972.	1.8	6
68	Nanoscale considerations responsible for diverse macroscopic phase behavior in monosubstituted isobutyl-POSS/poly(ethylene oxide) blends. Soft Matter, 2017, 13, 8672-8677.	1.2	6
69	The Role of Polymer Crystallizability on the Formation of Polymer-Urea-Inclusion Compounds. Crystal Growth and Design, 2018, 18, 3099-3106.	1.4	6
70	Kerr effect and dielectric study of poly(vinyl chloride) and its oligomers. Macromolecules, 1983, 16, 287-291.	2.2	5
71	Is there a connection between the lateral surface free energy of a growing polymer crystal and the mean-square dimensions of the polymer chains in the molten phase?. Macromolecules, 1992, 25, 7199-7203.	2.2	5
72	An unexpected stereochemical bias in the RAFT syntheses of styrene/p-bromostyrene copolymers uncovered by the Kerr effect. Polymer, 2016, 89, 50-54.	1.8	5

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73	Demonstrating Unique Behaviors of Polymers. Journal of Chemical Education, 2017, 94, 1738-1745.	1.1	4
74	Self-assembled complexation of urea with poly (methyl methacrylate): A potential method for small molecule encapsulation in PMMA. Polymer, 2018, 156, 95-101.	1.8	4
75	Enhancing the melt crystallization of polymers, especially slow crystallizing polymers like PLLA and PET. Polymer Crystallization, 2020, 3, e10095.	0.5	3
76	Attempted Determination of the Structures of Complex Aliphatic Copolyesters. Macromolecular Chemistry and Physics, 2017, 218, 1700258.	1.1	1
77	A New Twoâ€Step Strategy for Encapsulating Amorphous Polymer Chains in Thiourea Crystals. Macromolecular Chemistry and Physics, 2020, 221, 2000269.	1.1	1