Pathiraja A Gunatillake

List of Publications by Year
in descending order

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65 papers	4,090 citations	172207 29 h-index	114278 63 g-index
65 all docs	65 docs citations	65 times ranked	4943 citing authors

#	Article	IF	Citations
1	Assessment of a Siloxane Poly(urethaneâ€urea) Elastomer Designed for Implantable Heart Valve Leaflets. Advanced NanoBiomed Research, 2021, 1, 2000032.	1.7	22
2	Honey-inspired antimicrobial hydrogels resist bacterial colonization through twin synergistic mechanisms. Scientific Reports, 2020, 10, 15796.	1.6	8
3	Antimicrobial Honey-Inspired Glucose-Responsive Nanoreactors by Polymerization-Induced Self-Assembly. ACS Applied Materials & Interfaces, 2020, 12, 11353-11362.	4.0	36
4	Ternary polyurethane nanocomposites with remarkable electrical conductivity. Materials Science and Technology, 2020, 36, 540-547.	0.8	1
5	In vitro oxidative stability of high strength siloxane poly(urethaneâ€urea) elastomers based on linkedâ€macrodiol. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 2557-2565.	1.6	10
6	Silver nanowire as an efficient filler for high conductive polyurethane composites. Materials Science and Technology, 2019, 35, 462-468.	0.8	4
7	Hard segment composition, morphology, tensile properties and biostability of linked-macrodiol based siloxane poly(urethane urea). Materials Today Communications, 2019, 18, 110-118.	0.9	9
8	Advancements in the Development of Biostable Polyurethanes. Polymer Reviews, 2019, 59, 391-417.	5.3	27
9	Morphology and surface properties of high strength siloxane poly(urethaneâ€urea)s developed for heart valve application. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 112-121.	1.6	28
10	Development of high strength siloxane poly(urethaneâ€urea) elastomers based on linked macrodiols for heart valve application. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1712-1720.	1.6	25
11	Hydrophobicâ€hydrophilic surface switching properties of nonchain extended poly(urethane)s for use in agriculture to minimize soil water evaporation and permit water infiltration. Journal of Applied Polymer Science, 2017, 134, 44756.	1.3	18
12	Glycosylated Reversible Additionâ€“Fragmentation Chain Transfer Polymers with Varying Polyethylene Glycol Linkers Produce Different Short Interfering RNA Uptake, Gene Silencing, and Toxicity Profiles. Biomacromolecules, 2017, 18, 4099-4112.	2.6	5
13	Preparation and characterization of highly conductive polyurethane composites containing graphene and gold nanoparticles. Journal of Materials Science, 2017, 52, 11774-11784.	1.7	17
14	Comparing Gene Silencing and Physiochemical Properties in siRNA Bound Cationic Star-Polymer Complexes. Biomacromolecules, 2016, 17, 3532-3546.	2.6	16
15	High Modulus Biodegradable Polyurethanes for Vascular Stents: Evaluation of Accelerated in vitro Degradation and Cell Viability of Degradation Products. Frontiers in Bioengineering and Biotechnology, 2015, 3, 52.	2.0	12
16	Biomedical applications of polymers derived by reversible addition â€“ fragmentation chain-transfer (RAFT). Advanced Drug Delivery Reviews, 2015, 91, 141-152.	6.6	119
17	Electrically conductive polymers and composites for biomedical applications. RSC Advances, 2015, 5, 37553-37567.	1.7	655
18	Graphene/polyurethane composites: fabrication and evaluation of electrical conductivity, mechanical properties and cell viability. RSC Advances, 2015, 5, 98762-98772.	1.7	51

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19	Properties and <i>in vitro</i> evaluation of high modulus biodegradable polyurethanes for applications in cardiovascular stents. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 1711-1719.	1.6	17
20	Inhibition of influenza virusin vivoby siRNA delivered using ABA triblock copolymer synthesized by reversible addition-fragmentation chain-transfer polymerization. Nanomedicine, 2014, 9, 1141-1154.	1.7	13
21	Synthesis of cleavable multi-functional mikto-arm star polymer by RAFT polymerization: example of an anti-cancer drug 7-ethyl-10-hydroxycamptothecin (SN-38) as functional moiety. Science China Chemistry, 2014, 57, 995-1001.	4.2	17
22	Synthesis and evaluation of degradable polyurea block copolymers as siRNA delivery agents. Acta Biomaterialia, 2013, 9, 8299-8307.	4.1	18
23	Core Degradable Star RAFT Polymers: Synthesis, Polymerization, and Degradation Studies. Macromolecules, 2013, 46, 9181-9188.	2.2	36
24	Salt Induced Lamellar to Bicontinuous Cubic Phase Transitions in Cationic Nanoparticles. Journal of Physical Chemistry B, 2012, 116, 3551-3556.	1.2	67
25	The effect of RAFT-derived cationic block copolymer structure on gene silencing efficiency. Biomaterials, 2012, 33, 7631-7642.	5.7	53
26	Glycerol Monooleate-Based Nanocarriers for siRNA Delivery in Vitro. Molecular Pharmaceutics, 2012, 9, 2450-2457.	2.3	61
27	Applying â€œclickâ€•chemistry to polyurethanes: a straightforward approach for glycopolymer synthesis. Polymer Chemistry, 2011, 2, 2782.	1.9	20
28	Evaluation of in situ curable biodegradable polyurethanes containing zwitterion components. Journal of Materials Science: Materials in Medicine, 2010, 21, 1081-1089.	1.7	13
29	Biodegradable injectable polyurethanes: Synthesis and evaluation for orthopaedic applications. Biomaterials, 2008, 29, 3762-3770.	5.7	125
30	Thermoplastic biodegradable polyurethanes: The effect of chain extender structure on properties and in-vitro degradation. Biomaterials, 2007, 28, 5407-5417.	5.7	231
31	Synthesis of two-component injectable polyurethanes for bone tissue engineering. Biomaterials, 2007, 28, 423-433.	5.7	147
32	Recent developments in biodegradable synthetic polymers. Biotechnology Annual Review, 2006, 12, 301-347.	2.1	334
33	Chemosynthesis of bioresorbable poly(Î³-butyrolactone) by ring-opening polymerisation: a review. Biomaterials, 2005, 26, 3771-3782.	5.7	112
34	Long-term in vivo biostability of poly(dimethylsiloxane)/poly(hexamethylene oxide) mixed macrodiol-based polyurethane elastomers. Biomaterials, 2004, 25, 4887-4900.	5.7	171
35	Designing Biostable Polyurethane Elastomers for Biomedical Implants. Australian Journal of Chemistry, 2003, 56, 545.	0.5	147
36	Designing Biostable Polyurethane Elastomers for Biomedical Implants.. ChemInform, 2003, 34, no.	0.1	1

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37	Low-modulus siloxane-polyurethanes. Part II. Effect of chain extender structure on properties and morphology. Journal of Applied Polymer Science, 2003, 87, 1092-1100.	1.3	24
38	Effect of polydimethylsiloxane macrodiol molecular weight on properties and morphology of polyurethane and polyurethaneurea. Journal of Applied Polymer Science, 2003, 90, 1565-1573.	1.3	35
39	Low-modulus siloxane-based polyurethanes. I. Effect of the chain extender 1,3-bis(4-hydroxybutyl)1,1,3,3-tetramethyldisiloxane (BHTD) on properties and morphology. Journal of Applied Polymer Science, 2002, 83, 736-746.	1.3	29
40	New methods for the assessment of in vitro and in vivo stress cracking in biomedical polyurethanes. Biomaterials, 2001, 22, 973-978.	5.7	27
41	Poly(dimethylsiloxane)/poly(hexamethylene oxide) mixed macrodiol based polyurethane elastomers. I. Synthesis and properties. Journal of Applied Polymer Science, 2000, 76, 2026-2040.	1.3	103
42	Mixed macrodiol-based siloxane polyurethanes: Effect of the comacrodiol structure on properties and morphology. Journal of Applied Polymer Science, 2000, 78, 1071-1082.	1.3	74
43	Polydimethylsiloxane/polyether-mixed macrodiol-based polyurethane elastomers: biostability. Biomaterials, 2000, 21, 1021-1029.	5.7	158
44	The influence of composition ratio on the morphology of biomedical polyurethanes. Journal of Applied Polymer Science, 1999, 71, 937-952.	1.3	67
45	The effect of diisocyanate isomer composition on properties and morphology of polyurethanes based on 4,4â€²-dicyclohexyl methane diisocyanate and mixed macrodiols (PDMS-PHMO). Journal of Applied Polymer Science, 1999, 73, 573-582.	1.3	16
46	Effect of chain extender structure on the properties and morphology of polyurethanes based on H12MDI and mixed macrodiols (PDMSâ€“PHMO). Journal of Applied Polymer Science, 1999, 74, 2979.	1.3	1
47	Effect of chain extender structure on the properties and morphology of polyurethanes based on H12MDI and mixed macrodiols (PDMS-PHMO). Journal of Applied Polymer Science, 1999, 74, 2979-2989.	1.3	33
48	Synthesis and characterization of a series of poly(alkylene carbonate) macrodiols and the effect of their structure on the properties of polyurethanes. Journal of Applied Polymer Science, 1998, 69, 1621-1633.	1.3	45
49	In-vivo degradation of polyurethanes: transmission-FTIR microscopic characterization of polyurethanes sectioned by cryomicrotomy. Biomaterials, 1997, 18, 1387-1409.	5.7	135
50	Polyurethane elastomers with low modulus and hardness based on novel copolyether macrodiols. Journal of Applied Polymer Science, 1997, 63, 1373-1384.	1.3	8
51	The effect of average soft segment length on morphology and properties of a series of polyurethane elastomers. II. SAXS-DSC annealing study. Journal of Applied Polymer Science, 1997, 64, 803-817.	1.3	166
52	Synthesis, characterization, and stability of poly[(alkylene oxide) ester] thermoplastic elastomers. Journal of Applied Polymer Science, 1997, 65, 1319-1332.	1.3	9
53	Effect of soft-segment CH2/O ratio on morphology and properties of a series of polyurethane elastomers. Journal of Applied Polymer Science, 1996, 60, 557-571.	1.3	133
54	The effect of average soft segment length on morphology and properties of a series of polyurethane elastomers. I. Characterization of the series. Journal of Applied Polymer Science, 1996, 62, 1377-1386.	1.3	123

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55	Surface modification of kaolin. 2. Enhanced steric stabilisation of polymer-modified kaolin. Polymer International, 1995, 37, 53-61.	1.6	10
56	In vivo evaluation of polyurethanes based on novel macrodiols and MDI. Journal of Biomaterials Science, Polymer Edition, 1995, 6, 41-54.	1.9	19
57	Surface modification of kaolin. 1. Covalent attachment of polyethylene glycol using a urethane linker. Polymer International, 1994, 34, 425-431.	1.6	18
58	Novel polyetherurethaneurea elastomers based on Î±,Î±,Î±â€²,Î±â€²-tetramethyl-m-xylenediisocyanate: Synthesis, characterization, processability, and hydrolytic stability. Journal of Applied Polymer Science, 1993, 47, 199-210.	1.3	3
59	Synthesis and characterization of hydroxy-terminated poly(alkylene oxides) by condensation polymerization of diols. Polymer International, 1992, 27, 275-283.	1.6	25
60	Polyurethane elastomers based on novel polyether macrodiols and MDI: Synthesis, mechanical properties, and resistance to hydrolysis and oxidation. Journal of Applied Polymer Science, 1992, 46, 319-328.	1.3	51
61	Thermal polymerization of a 2-(carboxyalkyl)-2-oxazoline. Macromolecules, 1988, 21, 1556-1562.	2.2	47
62	Thermal polymerization of 2-(mercaptoalkyl)-2-oxazolines. Macromolecules, 1987, 20, 2356-2362.	2.2	11
63	Zwitterion polymerization of 2-methyl-2-oxazoline and methacrylic acid. Macromolecules, 1985, 18, 605-611.	2.2	29
64	Zwitterion polymerization of 2-methyl-2-oxazoline and acrylic acid. Macromolecules, 1984, 17, 1297-1307.	2.2	40
65	Zwitterion polymerization of 2-methyl-2-oxazoline and acrylic acid: characterization of ether-soluble products. Macromolecules, 1984, 17, 2236-2240.	2.2	5