Iskender Yilgor

List of Publications by Year
in descending order

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119 papers	7,688 citations	61687 45 h-index	64407 83 g-index
120 all docs	120 docs citations	120 times ranked	7383 citing authors

#	Article	IF	Citations
1	High-Performance White Light-Emitting Diodes over 150 lm/W Using Near-Unity-Emitting Quantum Dots in a Liquid Matrix. ACS Photonics, 2022, 9, 1304-1314.	3.2	18
2	Mechanical reinforcement and memory effect of strain-induced soft segment crystals in thermoplastic polyurethane-urea elastomers. Polymer, 2021, 223, 123708.	1.8	26
3	Geometric Confinement Controls Stiffness, Strength, Extensibility, and Toughness in Poly(urethaneâ€“urea) Copolymers. Macromolecules, 2021, 54, 4704-4725.	2.2	5
4	3D Printed Biodegradable Polyurethaneurea Elastomer Recapitulates Skeletal Muscle Structure and Function. ACS Biomaterials Science and Engineering, 2021, 7, 5189-5205.	2.6	14
5	Stiff, Strong, Tough, and Highly Stretchable Hydrogels Based on Dual Stimuli-Responsive Semicrystalline Poly(urethaneâ€“urea) Copolymers. ACS Applied Polymer Materials, 2021, 3, 5683-5695.	2.0	4
6	Influence of hydrogen bond on the mesomorphic behaviour in urethane based liquid crystalline compounds: Experimental and computer simulation study. Journal of Molecular Liquids, 2020, 317, 114001.	2.3	4
7	3D printed poly(lactic acid) scaffolds modified with chitosan and hydroxyapatite for bone repair applications. Materials Today Communications, 2020, 25, 101515.	0.9	25
8	A coarse grained simulation study on the morphology of ABA triblock copolymers. Computational Materials Science, 2019, 167, 160-167.	1.4	4
9	Electrospun polycaprolactone/silk fibroin nanofibrous bioactive scaffolds for tissue engineering applications. Polymer, 2019, 168, 86-94.	1.8	74
10	Effect of surface modification of colloidal silica nanoparticles on the rigid amorphous fraction and mechanical properties of amorphous polyurethaneâ€“ureaâ€“silica nanocomposites. Journal of Polymer Science Part A, 2019, 57, 2543-2556.	2.5	7
11	Critical parameters controlling the properties of monolithic poly(lactic acid) foams prepared by thermally induced phase separation. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 98-108.	2.4	12
12	Reversible switching of wetting properties and erasable patterning of polymer surfaces using plasma oxidation and thermal treatment. Applied Surface Science, 2018, 441, 841-852.	3.1	20
13	Preparation of monolithic polycaprolactone foams with controlled morphology. Polymer, 2018, 136, 166-178.	1.8	27
14	Temperatureâ€dependent changes in the hydrogen bonded hard segment network and microphase morphology in a model polyurethane: Experimental and simulation studies. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 182-192.	2.4	31
15	Effect of filler content on the structureâ€property behavior of poly(ethylene oxide) based polyurethaneureaâ€silica nanocomposites. Polymer Engineering and Science, 2018, 58, 1097-1107.	1.5	15
16	Spontaneous formation of microporous poly(lactic acid) coatings. Progress in Organic Coatings, 2018, 125, 249-256.	1.9	15
17	Wetting behavior of superhydrophobic poly(methyl methacrylate). Progress in Organic Coatings, 2018, 125, 530-536.	1.9	18
18	All-protein 3D coffee stain lasers. , 2018, , .		0

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19	Eco-friendly Silk-hydrogel Lenses for LEDs. , 2018, , .		0
20	Effect of soft segment molecular weight on the glass transition, crystallinity, molecular mobility and segmental dynamics of poly(ethylene oxide) based poly(urethaneâ€“urea) copolymers. RSC Advances, 2017, 7, 40745-40754.	1.7	15
21	3D coffee stains. Materials Chemistry Frontiers, 2017, 1, 2360-2367.	3.2	9
22	Intercalated chitosan/hydroxyapatite nanocomposites: Promising materials for bone tissue engineering applications. Carbohydrate Polymers, 2017, 175, 38-46.	5.1	130
23	Silk-hydrogel Lenses for Light-emitting Diodes. Scientific Reports, 2017, 7, 7258.	1.6	37
24	Effect of reaction solvent on hydroxyapatite synthesis in solâ€“gel process. Royal Society Open Science, 2017, 4, 171098.	1.1	24
25	BiocompatibilitÃ e durata in vivo di cinque nuovi polimeri sintetici testati su coniglio. Acta Otorhinolaryngologica Italica, 2016, 36, 101-106.	0.7	2
26	Effect of intersegmental interactions on the morphology of segmented polyurethanes with mixed soft segments: A coarse-grained simulation study. Polymer, 2016, 90, 204-214.	1.8	44
27	Simple processes for the preparation of superhydrophobic polymer surfaces. Polymer, 2016, 99, 580-593.	1.8	23
28	Fabrication of rigid poly(lactic acid) foams via thermally induced phase separation. Polymer, 2016, 107, 240-248.	1.8	61
29	Discovery of Superior Cuâ€GaO_xâ€HoO_y Catalysts for the Reduction of Carbon Dioxide to Methanol at Atmospheric Pressure. ChemCatChem, 2016, 8, 1464-1469.	1.8	19
30	Synthesis and structure-property behavior of polycaprolactone-polydimethylsiloxane-polycaprolactone triblock copolymers. Polymer, 2016, 83, 138-153.	1.8	32
31	Critical parameters in designing segmented polyurethanes and their effect on morphology and properties: A comprehensive review. Polymer, 2015, 58, A1-A36.	1.8	439
32	Influence of the average surface roughness on the formation of superhydrophobic polymer surfaces through spin-coating with hydrophobic fumed silica. Polymer, 2015, 62, 118-128.	1.8	83
33	Influence of the coating method on the formation of superhydrophobic siliconeâ€“urea surfaces modified with fumed silica nanoparticles. Progress in Organic Coatings, 2015, 84, 143-152.	1.9	37
34	Silicone containing copolymers: Synthesis, properties and applications. Progress in Polymer Science, 2014, 39, 1165-1195.	11.8	397
35	Understanding the influence of hydrogen bonding and diisocyanate symmetry on the morphology and properties of segmented polyurethanes and polyureas: Computational and experimental study. Polymer, 2014, 55, 4563-4576.	1.8	120
36	Effects of solvent on TEOS hydrolysis kinetics and silica particle size under basic conditions. Journal of Sol-Gel Science and Technology, 2013, 67, 351-361.	1.1	58

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37	Hydrophilization of siliconeâ€“urea copolymer surfaces by UV/ozone: Influence of PDMS molecular weight on surface oxidation and hydrophobic recovery. Polymer, 2013, 54, 6665-6675.	1.8	20
38	Polyurethaneureaâ€“silica nanocomposites: Preparation and investigation of the structureâ€“property behavior. Polymer, 2013, 54, 5310-5320.	1.8	53
39	Two New Polymers as Candidates for Rhinoplasty Allografts: An Experimental Study in a Rabbit Model. Annals of Otology, Rhinology and Laryngology, 2013, 122, 474-479.	0.6	5
40	Tunable Wetting of Polymer Surfaces. Langmuir, 2012, 28, 14808-14814.	1.6	44
41	The effect of varying soft and hard segment length on the structureâ€“property relationships of segmented polyurethanes based on a linear symmetric diisocyanate, 1,4-butanediol and PTMO soft segments. Polymer, 2012, 53, 5358-5366.	1.8	119
42	Effect of UV/ozone irradiation on the surface properties of electrospun webs and films prepared from polydimethylsiloxaneâ€“urea copolymers. Applied Surface Science, 2012, 258, 4246-4253.	3.1	23
43	Effect of soft segment molecular weight on tensile properties of poly(propylene oxide) based polyurethaneureas. Polymer, 2012, 53, 4614-4622.	1.8	55
44	Multiscale Modeling of the Morphology and Properties of Segmented Silicone-Urea Copolymers. Journal of Inorganic and Organometallic Polymers and Materials, 2012, 22, 604-616.	1.9	22
45	Micro-phase Separation via Spinodal-like Decomposition in Hexamethylynediisocyanate (HDI)-polyurea. Journal of Inorganic and Organometallic Polymers and Materials, 2012, 22, 624-628.	1.9	1
46	Facile preparation of superhydrophobic polymer surfaces. Polymer, 2012, 53, 1180-1188.	1.8	99
47	Fumed silica filled poly(dimethylsiloxane-urea) segmented copolymers: Preparation and properties. Polymer, 2011, 52, 4189-4198.	1.8	51
48	Influence of soft segment molecular weight on the mechanical hysteresis and set behavior of silicone-urea copolymers with low hard segment contents. Polymer, 2011, 52, 266-274.	1.8	73
49	Erbium(III)â€doped polyurethaneureas: Novel broadband ultravioletâ€toâ€visible converters. Journal of Applied Polymer Science, 2010, 117, 378-383.	1.3	2
50	Antibacterial Silicone-Urea/Organoclay Nanocomposites. Silicon, 2009, 1, 183-190.	1.8	12
51	Polyisobutyleneâ€based segmented polyureas. I. Synthesis of hydrolytically and oxidatively stable polyureas. Journal of Polymer Science Part A, 2009, 47, 38-48.	2.5	47
52	Polyisobutyleneâ€based polyurethanes. II. Polyureas containing mixed PIB/PTMO soft segments. Journal of Polymer Science Part A, 2009, 47, 2787-2797.	2.5	48
53	Polyisobutyleneâ€based polyurethanes. III. Polyurethanes containing PIB/PTMO soft coâ€segments. Journal of Polymer Science Part A, 2009, 47, 5278-5290.	2.5	31
54	PIBâ€based polyurethanes. IV. The morphology of polyurethanes containing soft coâ€segments*. Journal of Polymer Science Part A, 2009, 47, 6180-6190.	2.5	15

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55	Timeâ€dependent morphology development in segmented polyetherurea copolymers based on aromatic diisocyanates. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 471-483.	2.4	48
56	Contribution of soft segment entanglement on the tensile properties of siliconeâ€“urea copolymers with low hard segment contents. Polymer, 2009, 50, 4432-4437.	1.8	72
57	Real time mechano-optical study on deformation behavior of PTMO/CHDI-based polyetherurethanes under uniaxial extension. Polymer, 2009, 50, 4644-4655.	1.8	26
58	Influence of polymerization procedure on polymer topology and other structural properties in highly branched polymers obtained by A2+B3 approach. Polymer, 2008, 49, 1414-1424.	1.8	13
59	Probing the urea hard domain connectivity in segmented, non-chain extended polyureas using hydrogen-bond screening agents. Polymer, 2008, 49, 174-179.	1.8	52
60	Informal Undergraduate Polymer Research Program at Koc University Chemistry Department. Polymer Reviews, 2008, 48, 633-641.	5.3	0
61	Effect of Symmetry and Hâ€bond Strength of Hard Segments on the Structureâ€Property Relationships of Segmented, Nonchain Extended Polyurethanes and Polyureas. Journal of Macromolecular Science - Physics, 2007, 46, 853-875.	0.4	94
62	Structureâ€Morphologyâ€Property Behavior of Segmented Thermoplastic Polyurethanes and Polyureas Prepared without Chain Extenders. Polymer Reviews, 2007, 47, 487-510.	5.3	120
63	Structureâ€“property relationships and melt rheology of segmented, non-chain extended polyureas: Effect of soft segment molecular weight. Polymer, 2007, 48, 290-301.	1.8	118
64	Silicone-Urea Copolymers Modified with Polyethers. ACS Symposium Series, 2007, , 100-115.	0.5	4
65	FTIR investigation of the influence of diisocyanate symmetry on the morphology development in model segmented polyurethanes. Polymer, 2006, 47, 4105-4114.	1.8	294
66	Luminescent Nd3+ doped siliconeâ€“urea copolymers. Polymer, 2006, 47, 982-990.	1.8	9
67	Anomalous dilute solution properties of segmented polydimethylsiloxaneâ€“polyurea copolymers in isopropyl alcohol. Polymer, 2006, 47, 1179-1186.	1.8	6
68	Highly Branched Poly(arylene ether)s via Oligomeric A2â€‰+â€‰B3 Strategies. Macromolecular Chemistry and Physics, 2006, 207, 576-586.	1.1	27
69	Luminescence Characteristics of Nd3+-Doped Silicone-Urea Copolymers. , 2006, , .		0
70	Electrospinning of linear and highly branched segmented poly(urethane urea)s. Polymer, 2005, 46, 2011-2015.	1.8	82
71	Understanding the structure development in hyperbranched polymers prepared by oligomeric A2+B3 approach: comparison of experimental results and simulations. Polymer, 2005, 46, 4533-4543.	1.8	71
72	Role of chain symmetry and hydrogen bonding in segmented copolymers with monodisperse hard segments. Polymer, 2005, 46, 7317-7322.	1.8	148

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73	Structureâ€“property behavior of segmented polyurethaneurea copolymers based on an ethyleneâ€“butylene soft segment. Polymer, 2005, 46, 10191-10201.	1.8	60
74	Structureâ€“property behavior of poly(dimethylsiloxane) based segmented polyurea copolymers modified with poly(propylene oxide). Polymer, 2005, 46, 8185-8193.	1.8	67
75	A comparative study of the structureâ€“property behavior of highly branched segmented poly(urethane) Tj ETQq1 1 0.784314 rgBT /Ov	1.8	39
76	Structure â€" Property Behavior of New Segmented Polyurethanes and Polyureas Without Use of Chain Extenders. Rubber Chemistry and Technology, 2005, 78, 737-753.	0.6	34
77	Influence of Annealing on the Performance of Short Glass Fiber-reinforced Polyphenylene Sulfide (PPS) Composites. Journal of Composite Materials, 2005, 39, 21-33.	1.2	20
78	Time-Dependent Morphology Development in a Segmented Polyurethane with Monodisperse Hard Segments Based on 1,4-Phenylene Diisocyanate. Macromolecules, 2005, 38, 10074-10079.	2.2	43
79	Probing the Hard Segment Phase Connectivity and Percolation in Model Segmented Poly(urethane) Tj ETQq1 1 0.784314 rgBT /Overlo	2.2	53
80	Rheology and processing of BaSO4-filled medical-grade thermoplastic polyurethane. Polymer Engineering and Science, 2004, 44, 1941-1948.	1.5	17
81	Preparation of segmented, high molecular weight, aliphatic poly(ether-urea) copolymers in isopropanol. In-situ FTIR studies and polymer synthesis. Polymer, 2004, 45, 5829-5836.	1.8	47
82	Influence of system variables on the morphological and dynamic mechanical behavior of polydimethylsiloxane based segmented polyurethane and polyurea copolymers: a comparative perspective. Polymer, 2004, 45, 6919-6932.	1.8	177
83	Effect of Chemical Composition on Large Deformation Mechanooptical Properties of High Strength Thermoplastic Poly(urethane urea)s. Macromolecules, 2004, 37, 8676-8685.	2.2	28
84	A New Generation of Highly Branched Polymers:â€‰ Hyperbranched, Segmented Poly(urethane urea) Elastomers. Macromolecules, 2004, 37, 7081-7084.	2.2	84
85	Surface properties of polyamides modified with reactive polydimethylsiloxane oligomers and copolymers. Polymer, 2003, 44, 7271-7279.	1.8	21
86	Isopropyl alcohol: an unusual, powerful, â€˜greenâ€™ solvent for the preparation of siliconeâ€“urea copolymers with high urea contents. Polymer, 2003, 44, 7787-7793.	1.8	67
87	Influence of lithium chloride on the morphology of flexible slabstock polyurethane foams and their plaque counterparts. Polymer, 2003, 44, 757-768.	1.8	16
88	Rheology and extrusion of medical-grade thermoplastic polyurethane. Polymer Engineering and Science, 2003, 43, 1863-1877.	1.5	41
89	Exploring Urea Phase Connectivity in Molded Flexible Polyurethane Foam Formulations Using LiBr as a Probe. Journal of Macromolecular Science - Physics, 2003, 42, 1125-1139.	0.4	9
90	Conformational Analysis of Model Poly(ether urethane) Chains in the Unperturbed State and under External Forces. Macromolecules, 2002, 35, 9825-9831.	2.2	5

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91	Modification of polyolefins with silicone copolymers. I. Processing behavior and surface characterization of PP and HDPE blended with silicone copolymers. Journal of Applied Polymer Science, 2002, 83, 1625-1634.	1.3	25
92	Modification of polyolefins with silicone copolymers. II. Thermal, mechanical, and tribological behavior of PP and HDPE blended with silicone copolymers. Journal of Applied Polymer Science, 2002, 84, 535-540.	1.3	10
93	Electrospinning of polyurethane fibers. Polymer, 2002, 43, 3303-3309.	1.8	942
94	Hydrogen bonding and polyurethane morphology. II. Spectroscopic, thermal and crystallization behavior of polyether blends with 1,3-dimethylurea and a model urethane compound. Polymer, 2002, 43, 6561-6568.	1.8	102
95	Hydrogen bonding and polyurethane morphology. I. Quantum mechanical calculations of hydrogen bond energies and vibrational spectroscopy of model compounds. Polymer, 2002, 43, 6551-6559.	1.8	223
96	Hydrogen bonding: a critical parameter in designing silicone copolymers. Polymer, 2001, 42, 7953-7959.	1.8	111
97	Comparison of hydrogen bonding in polydimethylsiloxane and polyether based urethane and urea copolymers. Polymer, 2000, 41, 849-857.	1.8	226
98	High Strength Silicone-Urethane Copolymers: Synthesis and Properties. ACS Symposium Series, 2000, , 395-407.	0.5	3
99	Hydrophilic polyurethaneurea membranes: influence of soft block composition on the water vapor permeation rates. Polymer, 1999, 40, 5575-5581.	1.8	78
100	Catalyst effect on the transesterification reactions between polycarbonate and polycaprolactone-B-polydimethylsiloxane triblock copolymers. Polymer Bulletin, 1999, 43, 207-214.	1.7	12
101	Thermal stabilities of end groups in hydroxyalkyl terminated polydimethylsiloxane oligomers. Polymer Bulletin, 1998, 40, 525-532.	1.7	34
102	1,3-bis(Î³-aminopropyl)tetramethyldisiloxane modified epoxy resins: curing and characterization. Polymer, 1998, 39, 1691-1695.	1.8	25
103	Siloxane Terpolymers as Compatibilizers for Polymer Blends. , 1997, , 195-209.		0
104	Surface Depletion of End Groups in Amine-Terminated Poly(dimethylsiloxane). Macromolecules, 1994, 27, 2409-2413.	2.2	54
105	Molecular weight dependence and end-group effects on the surface tension of poly(dimethylsiloxane). Macromolecules, 1993, 26, 3069-3074.	2.2	135
106	Chemical modification of matrix resin networks with engineering thermoplastics: 1. Synthesis, morphology, physical behaviour and toughening mechanisms of poly(arylene ether sulphone) modified epoxy networks. Polymer, 1991, 32, 2020-2032.	1.8	233
107	Isocyanateâ€“epoxy reactions in bulk and solution. Journal of Applied Polymer Science, 1989, 38, 373-382.	1.3	31
108	Novel triblock siloxane copolymers: Synthesis, characterization, and their use as surface modifying additives. Journal of Polymer Science Part A, 1989, 27, 3673-3690.	2.5	73

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109	Polysiloxane containing copolymers: A survey of recent developments. , 1988, , 1-86.		319
110	Studies on the Synthesis of Novel Block Ionomers. ACS Symposium Series, 1986, , 79-92.	0.5	6
111	Effect of catalysts on the reaction between a cycloaliphatic diisocyanate (H-MDI) and n-butanol. Journal of Applied Polymer Science, 1985, 30, 1733-1739.	1.3	27
112	Segmented organosiloxane copolymers: 2 Thermal and mechanical properties of siloxaneâ€"urea copolymers. Polymer, 1984, 25, 1807-1816.	1.8	135
113	Synthesis of high molecular weight polyester carbonates via interfacial phosgenation of aromatic dicarboxylic acids and bisphenols. Journal of Polymer Science: Polymer Chemistry Edition, 1984, 22, 679-704.	0.8	19
114	Synthesis and characterization of sulfonated poly(acrylene ether sulfones). Journal of Polymer Science: Polymer Chemistry Edition, 1984, 22, 721-737.	0.8	175
115	Novel supercritical fluid techniques for polymer fractionation and purification. Polymer Bulletin, 1984, 12, 491-497.	1.7	25
116	Novel supercritical fluid techniques for polymer fractionation and purification. Polymer Bulletin, 1984, 12, 499-506.	1.7	51
117	Synthesis and characterization of free radical cured Bis-methacryloxy bisphenol-A epoxy networks. Polymer Composites, 1983, 4, 120-125.	2.3	13
118	Copolymerization of fluorinated acrylic monomers and sodium-p-styrene sulfonate. Journal of Fluorine Chemistry, 1982, 21, 66.	0.9	0
119	A DSC kinetic study of the epoxy network system bisphenol-A diglycidylether-bis(4-aminocyclohexyl)methane. Polymer Bulletin, 1981, 4, 323-327.	1.7	20