Amitav Sanyal

List of Publications by Year in descending order

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		81900	138484
128	4,422	39	58
papers	citations	h-index	g-index
132	132	132	4824
all docs	docs citations	times ranked	citing authors

ΔΜΙΤΑΥ SANVAL

#	Article	IF	CITATIONS
1	Diels–Alder Cycloaddition ycloreversion: A Powerful Combo in Materials Design. Macromolecular Chemistry and Physics, 2010, 211, 1417-1425.	2.2	196
2	Double click reaction strategies for polymer conjugation and post-functionalization of polymers. Polymer Chemistry, 2012, 3, 825-835.	3.9	180
3	Discrete macromolecular constructs via the Diels–Alder "Click―reaction. Journal of Polymer Science Part A, 2011, 49, 4103-4120.	2.3	126
4	Fabrication and Functionalization of Hydrogels through "Click―Chemistry. Chemistry - an Asian Journal, 2011, 6, 2648-2659.	3.3	119
5	A Dielsâ€Alder/retro Dielsâ€Alder strategy to synthesize polymers bearing maleimide side chains. Journal of Polymer Science Part A, 2007, 45, 4545-4551.	2.3	101
6	Synthesis and Functionalization of Thiol-Reactive Biodegradable Polymers. Macromolecules, 2012, 45, 1715-1722.	4.8	98
7	Recognition-Induced Transformation of Microspheres into Vesicles:Â Morphology and Size Control. Journal of the American Chemical Society, 2004, 126, 14773-14777.	13.7	97
8	Biodegradable Nanocomposite Antimicrobials for the Eradication of Multidrug-Resistant Bacterial Biofilms without Accumulated Resistance. Journal of the American Chemical Society, 2018, 140, 6176-6182.	13.7	92
9	Influence of Size and Shape on the Biodistribution of Nanoparticles Prepared by Polymerization-Induced Self-Assembly. Biomacromolecules, 2017, 18, 3963-3970.	5.4	87
10	Designing functionalizable hydrogels through thiol–epoxy coupling chemistry. Chemical Communications, 2013, 49, 11191.	4.1	79
11	Reduced Graphene-Oxide-Embedded Polymeric Nanofiber Mats: An "On-Demand―Photothermally Triggered Antibiotic Release Platform. ACS Applied Materials & Interfaces, 2018, 10, 41098-41106.	8.0	75
12	Interplay between Molecular Packing, Drug Loading, and Core Cross-Linking in Bottlebrush Copolymer Micelles. Macromolecules, 2017, 50, 1342-1352.	4.8	72
13	Magnetic reduced graphene oxide loaded hydrogels: Highly versatile and efficient adsorbents for dyes and selective Cr(VI) ions removal. Journal of Colloid and Interface Science, 2017, 507, 360-369.	9.4	72
14	Segment Block Dendrimers via Dielsâ^'Alder Cycloaddition. Organic Letters, 2008, 10, 2353-2356.	4.6	70
15	Photothermally triggered on-demand insulin release from reduced graphene oxide modified hydrogels. Journal of Controlled Release, 2017, 246, 164-173.	9.9	70
16	Stable Magnetic Colloidosomes via Clickâ€Mediated Crosslinking of Nanoparticles at Water–Oil Interfaces. Small, 2009, 5, 685-688.	10.0	66
17	Functionalization of Reduced Graphene Oxide via Thiol–Maleimide "Click―Chemistry: Facile Fabrication of Targeted Drug Delivery Vehicles. ACS Applied Materials & Interfaces, 2017, 9, 34194-34203.	8.0	63
18	Fabrication of Maleimide Containing Thiol Reactive Hydrogels via Dielsâ^'Alder/Retro-Dielsâ^'Alder Strategy. Macromolecules, 2010, 43, 4140-4148.	4.8	61

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19	Colloidal Microcapsules: Selfâ€Assembly of Nanoparticles at the Liquid–Liquid Interface. Chemistry - an Asian Journal, 2010, 5, 2442-2453.	3.3	58
20	A New Chiral Anthracene for the Asymmetric Dielsâ^'Alder/Retro-Dielsâ^'Alder Sequence. Organic Letters, 2005, 7, 31-34.	4.6	57
21	Metal-Free Functionalization of Linear Polyurethanes by Thiol-Maleimide Coupling Reactions. Macromolecules, 2011, 44, 7874-7878.	4.8	57
22	â€~Clickable' hydrogels for all: facile fabrication and functionalization. Biomaterials Science, 2014, 2, 67-75.	5.4	57
23	Drug Delivery Systems from Self-Assembly of Dendron-Polymer Conjugates â€. Molecules, 2018, 23, 1570.	3.8	53
24	Pyridyl disulfide-based thiol–disulfide exchange reaction: shaping the design of redox-responsive polymeric materials. Polymer Chemistry, 2020, 11, 7603-7624.	3.9	51
25	Fabrication of poly(ethylene glycol)-based cyclodextrin containing hydrogels via thiol-ene click reaction. European Polymer Journal, 2015, 62, 426-434.	5.4	50
26	Bioinspired Anchorable Thiol-Reactive Polymers: Synthesis and Applications Toward Surface Functionalization of Magnetic Nanoparticles. Macromolecules, 2014, 47, 5124-5134.	4.8	49
27	Direct Fabrication of Functional and Biofunctional Nanostructures Through Reactive Imprinting. Advanced Materials, 2011, 23, 3165-3169.	21.0	48
28	Maleimide-Functionalized Thiol Reactive Copolymer Brushes: Fabrication and Post-Polymerization Modification. Macromolecules, 2014, 47, 7842-7851.	4.8	48
29	Diels-Alder "Clickable―Polymer Brushes: A Versatile Catalyst-Free Conjugation Platform. ACS Macro Letters, 2017, 6, 415-420.	4.8	46
30	Multi-Functional Nanogels as Theranostic Platforms: Exploiting Reversible and Nonreversible Linkages for Targeting, Imaging, and Drug Delivery. Bioconjugate Chemistry, 2018, 29, 1885-1896.	3.6	46
31	Stereoselective Dielsâ^'Alder Reactions of Chiral Anthracenes. Organic Letters, 2000, 2, 2527-2530.	4.6	44
32	Hooked on Cryogels: A Carbamate Linker Based Depot for Slow Drug Release. Bioconjugate Chemistry, 2017, 28, 1443-1451.	3.6	44
33	Design and Synthesis of Novel "Orthogonally―Functionalizable Maleimideâ€Based Styrenic Copolymers. Macromolecular Rapid Communications, 2012, 33, 856-862.	3.9	43
34	"Clickable―Nanogels via Thermally Driven Self-Assembly of Polymers: Facile Access to Targeted Imaging Platforms using Thiol–Maleimide Conjugation. Biomacromolecules, 2017, 18, 490-497.	5.4	43
35	Facile Fabrication of a Modular "Catch and Release―Hydrogel Interface: Harnessing Thiol–Disulfide Exchange for Reversible Protein Capture and Cell Attachment. ACS Applied Materials & Interfaces, 2018, 10, 14399-14409.	8.0	43
36	Formation and Size Tuning of Colloidal Microcapsules via Hostâ ''Guest Molecular Recognition at the Liquidâ ''Liquid Interface. Langmuir, 2009, 25, 13852-13854.	3.5	42

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37	Functionalization of Reactive Polymeric Coatings via Diels–Alder Reaction Using Microcontact Printing. Macromolecular Chemistry and Physics, 2012, 213, 166-172.	2.2	42
38	Indispensable Platforms for Bioimmobilization: Maleimide-Based Thiol Reactive Hydrogels. Bioconjugate Chemistry, 2014, 25, 2004-2011.	3.6	42
39	Multireactive Poly(2-oxazoline) Nanofibers through Electrospinning with Crosslinking on the Fly. ACS Macro Letters, 2016, 5, 676-681.	4.8	41
40	Best of both worlds: Diels–Alder chemistry towards fabrication of redox-responsive degradable hydrogels for protein release. RSC Advances, 2016, 6, 74757-74764.	3.6	41
41	Orthogonal thiol–ene â€~click' reactions: a powerful combination for fabrication and functionalization of patterned hydrogels. Chemical Communications, 2017, 53, 8894-8897.	4.1	41
42	Furan-containing polymeric Materials: Harnessing the Diels-Alder chemistry for biomedical applications. European Polymer Journal, 2021, 153, 110514.	5.4	39
43	Modular Fabrication of Polymer Brush Coated Magnetic Nanoparticles: Engineering the Interface for Targeted Cellular Imaging. ACS Applied Materials & Interfaces, 2016, 8, 19813-19826.	8.0	38
44	Cycloadditions of chiral anthracenes: effect of the trifluoromethyl group. Tetrahedron Letters, 2003, 44, 931-935.	1.4	37
45	Cyclodextrin mediated polymer coupling via thiol–maleimide conjugation: facile access to functionalizable hydrogels. RSC Advances, 2014, 4, 57834-57841.	3.6	37
46	Cyclodextrin embedded covalently crosslinked networks: synthesis and applications of hydrogels with nano-containers. Polymer Chemistry, 2020, 11, 615-629.	3.9	37
47	A new, chiral aminoanthracene for the Diels–Alder/retro-Diels–Alder sequence in lactam and butenolide synthesis. Tetrahedron Letters, 2005, 46, 2475-2478.	1.4	35
48	Dendronized polymers via Diels–Alder "click―reaction. Journal of Polymer Science Part A, 2010, 48, 410-416.	2.3	35
49	Maleimideâ€based thiol reactive multiarm star polymers via Dielsâ€Alder/retro Dielsâ€Alder strategy. Journal of Polymer Science Part A, 2010, 48, 2546-2556.	2.3	35
50	Molecular Recognition in Structured Matrixes:Â Control of Guest Localization in Block Copolymer Films. Journal of the American Chemical Society, 2005, 127, 16318-16324.	13.7	34
51	Orthogonally "Clickable―Biodegradable Dendrons. Macromolecules, 2011, 44, 2707-2714.	4.8	34
52	Reactive and â€~clickable' electrospun polymeric nanofibers. Polymer Chemistry, 2015, 6, 3372-3381.	3.9	34
53	"Clickable―Polymeric Nanofibers through Hydrophilic–Hydrophobic Balance: Fabrication of Robust Biomolecular Immobilization Platforms. Biomacromolecules, 2015, 16, 1590-1597.	5.4	33
54	The Taming of the Maleimide: Fabrication of Maleimide ontaining â€~Clickable' Polymeric Materials. Chemical Record, 2018, 18, 570-586.	5.8	33

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55	Clickable Poly(ethylene glycol)â€Based Copolymers Using Azide–Alkyne Click Cycloadditionâ€Mediated Stepâ€Growth Polymerization. Macromolecular Chemistry and Physics, 2014, 215, 2237-2247.	2.2	32
56	Dendrimers and Dendrons as Versatile Building Blocks for the Fabrication of Functional Hydrogels. Molecules, 2016, 21, 497.	3.8	32
57	Adsorption/Desorption of Mono- and Diblock Copolymers on Surfaces Using Specific Hydrogen Bonding Interactions. Langmuir, 2004, 20, 5958-5964.	3.5	31
58	Chiral anthracene and anthrone templates as stereocontrolling elements in Diels–Alder/retro Diels–Alder sequences. Bioorganic and Medicinal Chemistry, 2005, 13, 5299-5309.	3.0	31
59	"Clickable―bacterial poly(γ-glutamic acid). Polymer Chemistry, 2020, 11, 5582-5589.	3.9	31
60	Dendron-anchored organocatalysts: the asymmetric reduction of imines with trichlorosilane, catalysed by an amino acid-derived formamide appended to a dendron. Organic and Biomolecular Chemistry, 2010, 8, 137-141.	2.8	29
61	pH degradable dendron-functionalized poly(2-ethyl-2-oxazoline) prepared by a cascade "double-click― reaction. Polymer Chemistry, 2013, 4, 3236.	3.9	28
62	Reversible Light-Switching of Enzymatic Activity on Orthogonally Functionalized Polymer Brushes. ACS Applied Materials & Interfaces, 2017, 9, 9245-9249.	8.0	28
63	Design and Synthesis of Water-Soluble Multifunctionalizable Thiol-Reactive Polymeric Supports for Cellular Targeting. Bioconjugate Chemistry, 2015, 26, 1550-1560.	3.6	27
64	An â€~on-demand' photothermal antibiotic release cryogel patch: evaluation of efficacy on an <i>ex vivo</i> model for skin wound infection. Biomaterials Science, 2020, 8, 5911-5919.	5.4	27
65	Embedding Well-Defined Responsive Hydrogels with Nanocontainers: Tunable Materials from Telechelic Polymers and Cyclodextrins. ACS Omega, 2017, 2, 6658-6667.	3.5	26
66	FRET between BODIPY Azide Dye Clusters within PEG-Based Hydrogel: A Handle to Measure Stimuli Responsiveness. Journal of Physical Chemistry B, 2010, 114, 10954-10960.	2.6	25
67	Fabrication of Thiol–Ene "Clickable―Copolymer-Brush Nanostructures on Polymeric Substrates via Extreme Ultraviolet Interference Lithography. ACS Applied Materials & Interfaces, 2015, 7, 11337-11345.	8.0	25
68	Magnetic glyconanoparticles for selective lectin separation and purification. Polymer Chemistry, 2019, 10, 3351-3361.	3.9	25
69	Thiol-Reactive Polymers for Titanium Interfaces: Fabrication of Antimicrobial Coatings. ACS Applied Polymer Materials, 2019, 1, 1308-1316.	4.4	24
70	Redox-Responsive Hydrogels for Tunable and "On-Demand―Release of Biomacromolecules. Bioconjugate Chemistry, 2022, 33, 839-847.	3.6	24
71	Fabrication of a planar water gated organic field effect transistor using a hydrophilic polythiophene for improved digital inverter performance. Organic Electronics, 2014, 15, 646-653.	2.6	23
72	Trastuzumab targeted micellar delivery of docetaxel using dendron–polymer conjugates. Biomaterials Science, 2020, 8, 2600-2610.	5.4	23

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73	Tunable Elastic Modulus of Nanoparticle Monolayer Films by Host–Guest Chemistry. Advanced Materials, 2014, 26, 5056-5061.	21.0	22
74	Diels–Alder "Clickable―Biodegradable Nanofibers: Benign Tailoring of Scaffolds for Biomolecular Immobilization and Cell Growth. Bioconjugate Chemistry, 2017, 28, 2420-2428.	3.6	22
75	Photothermally Active Cryogel Devices for Effective Release of Antimicrobial Peptides: On-Demand Treatment of Infections. ACS Applied Materials & Interfaces, 2020, 12, 56805-56814.	8.0	22
76	Fabrication of Patterned Hydrogel Interfaces: Exploiting the Maleimide Group as a Dual Purpose Handle for Cross-Linking and Bioconjugation. Bioconjugate Chemistry, 2020, 31, 1382-1391.	3.6	22
77	Multiarm star polymers with peripheral dendritic PMMA arms through Diels–Alder click reaction. Journal of Polymer Science Part A, 2010, 48, 4842-4846.	2.3	21
78	Dendronized polystyrene via orthogonal double lick reactions. Journal of Polymer Science Part A, 2013, 51, 5029-5037.	2.3	21
79	Surface-Anchored Thiol-Reactive Soft Interfaces: Engineering Effective Platforms for Biomolecular Immobilization and Sensing. ACS Applied Materials & Interfaces, 2017, 9, 27946-27954.	8.0	21
80	Biodegradable Poly(lactic acid) Stabilized Nanoemulsions for the Treatment of Multidrug-Resistant Bacterial Biofilms. ACS Applied Materials & Interfaces, 2021, 13, 40325-40331.	8.0	21
81	Fast-Forming Dissolvable Redox-Responsive Hydrogels: Exploiting the Orthogonality of Thiol–Maleimide and Thiol–Disulfide Exchange Chemistry. Biomacromolecules, 2022, 23, 3525-3534.	5.4	20
82	<i>In situ</i> measurement of humidity induced changes in the refractive index and thickness of polyethylene glycol thin films. Journal of Applied Physics, 2007, 102, .	2.5	19
83	Designing Dendron–Polymer Conjugate Based Targeted Drug Delivery Platforms with a "Mix-and-Match―Modularity. Bioconjugate Chemistry, 2017, 28, 2962-2975.	3.6	19
84	Surfactant-Free Direct Access to Porphyrin-Cross-Linked Nanogels for Photodynamic and Photothermal Therapy. Bioconjugate Chemistry, 2018, 29, 4149-4159.	3.6	19
85	Recognition-Mediated Assembly of Nanoparticle-Diblock Copolymer Micelles with Controlled Size. Chemistry of Materials, 2006, 18, 5404-5409.	6.7	18
86	Origins of the diastereoselectivity in hydrogen bonding directed Diels–Alder reactions of chiral dienes with achiral dienophiles: a computational study. Organic and Biomolecular Chemistry, 2011, 9, 8079.	2.8	18
87	Sequence-controlled polymerization using dendritic macromonomers: precise chain-positioning of bulky functional clusters. Chemical Communications, 2013, 49, 7280.	4.1	18
88	Dendron–Polymer Conjugate Based Cross-Linked Micelles: A Robust and Versatile Nanosystem for Targeted Delivery. Bioconjugate Chemistry, 2019, 30, 1087-1097.	3.6	18
89	Assembly of magnetic nanoparticles into higher structures on patterned magnetic beads under the influence of magnetic field. Nanotechnology, 2010, 21, 125603.	2.6	17
90	Integration of Recognition Elements with Macromolecular Scaffolds:Â Effects on Polymer Self-Assembly in the Solid State. Macromolecules, 2004, 37, 4931-4939.	4.8	16

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91	Recognition mediated encapsulation and isolation of flavin–polymer conjugates using dendritic guest moieties. Chemical Communications, 2010, 46, 2067.	4.1	16
92	Synthesis and functionalization of dendronâ€polymer conjugate based hydrogels via sequential thiolâ€ene "click―reactions. Journal of Polymer Science Part A, 2016, 54, 926-934.	2.3	16
93	Micropatterned Reactive Nanofibers: Facile Fabrication of a Versatile Biofunctionalizable Interface. ACS Applied Polymer Materials, 2020, 2, 4026-4036.	4.4	16
94	Dendrons and Multiarm Polymers with Thiol-Exchangeable Cores: A Reversible Conjugation Platform for Delivery. Biomacromolecules, 2017, 18, 2463-2477.	5.4	15
95	Dendron–polymer conjugates via the diels–alder "click―reaction of novel anthraceneâ€based dendrons. Journal of Polymer Science Part A, 2013, 51, 3191-3201.	2.3	14
96	Photothermal Activatable Mucoadhesive Fiber Mats for On-Demand Delivery of Insulin via Buccal and Corneal Mucosa. ACS Applied Bio Materials, 2022, 5, 771-778.	4.6	14
97	Molecular Recognition Induced Selfâ€Assembly of Diblock Copolymers: Microspheres to Vesicles. Macromolecular Bioscience, 2010, 10, 481-487.	4.1	13
98	Self-Healing Hydrogels Based on Reversible Covalent Linkages: A Survey of Dynamic Chemical Bonds in Network Formation. Advances in Polymer Science, 2020, , 243-294.	0.8	13
99	Succinimidyl Carbonate-Based Amine-Reactive Polymer Brushes: Facile Fabrication of Functional Interfaces. ACS Applied Polymer Materials, 2021, 3, 2507-2517.	4.4	13
100	Anthracene-Functionalized Polystyrene Random Copolymers:Â Effects of Side-Chain Modification on Polymer Structure and Behavior. Macromolecules, 2004, 37, 92-98.	4.8	12
101	Dendron-based model systems for flavoenzyme activity: towards a new class of synthetic flavoenzyme. Chemical Communications, 2008, , 4123.	4.1	12
102	Humidity induced inhibition and enhancement of spontaneous emission of dye molecules in a single PEG nanofiber. Optical Materials Express, 2018, 8, 568.	3.0	12
103	Expanding the versatility of poly(dimethylsiloxane) through polymeric modification: an effective approach for improving triboelectric energy harvesting performance. Smart Materials and Structures, 2020, 29, 035024.	3.5	12
104	Understanding the Stereoselection Induced by Chiral Anthracene Templates in Dielsâ^'Alder Cycloaddition: A DFT Study. Journal of Organic Chemistry, 2009, 74, 2328-2336.	3.2	11
105	Multifunctional and Transformable â€~Clickable' Hydrogel Coatings on Titanium Surfaces: From Protein Immobilization to Cellular Attachment. Polymers, 2020, 12, 1211.	4.5	11
106	Thiol-reactive thiosulfonate group containing copolymers: facile entry to disulfide-mediated polymer conjugation and redox-responsive functionalizable networks. Polymer Chemistry, 2020, 11, 1763-1773.	3.9	11
107	O-nitromandelic acid: A chiral solvating agent for the NMR determination of chiral diamine enantiomeric purity. Chirality, 1997, 9, 556-562.	2.6	9
108	Orthogonally "Clickable―Biodegradable Nanofibers: Tailoring Biomaterials for Specific Protein Immobilization. ACS Omega, 2019, 4, 121-129.	3.5	9

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109	Thiol-Reactive Clickable Cryogels: Importance of Macroporosity and Linkers on Biomolecular Immobilization. Bioconjugate Chemistry, 2020, 31, 2116-2124.	3.6	9
110	A modular and orthogonally reactive platform for fabrication of polymer–drug conjugates for targeted delivery. Polymer Chemistry, 2020, 11, 7137-7146.	3.9	9
111	Hydrophilic Cross-Linked Polymeric Nanofibers Using Electrospinning: Imparting Aqueous Stability to Enable Biomedical Applications. ACS Applied Polymer Materials, 2022, 4, 1-17.	4.4	8
112	Functional polymeric coatings: thiol-maleimide â€~click' chemistry as a powerful surface functionalization tool. Journal of Macromolecular Science - Pure and Applied Chemistry, 2022, 59, 443-455.	2.2	8
113	Benzothiazole-disulfide based redox-responsive polymers: facile access to reversibly functionalizable polymeric coatings. Polymer Chemistry, 2022, 13, 2595-2607.	3.9	7
114	Fabrication of Stable Nanoparticle-Based Colloidal Microcapsules. Current Organic Chemistry, 2013, 17, 49-57.	1.6	5
115	Multiarm star polymers with a thermally cleavable core: A "graftingâ€from―approach paves the way. Journal of Polymer Science Part A, 2017, 55, 885-893.	2.3	5
116	Design and Synthesis of Maleimide Group Containing Polymeric Materials via the Diels-Alder/Retro Diels-Alder Strategy. , 2013, , 119-151.		4
117	Cyclodextrin-Containing Hydrogel Networks. , 0, , 2243-2258.		4
118	Size-dependent properties of matter: Is the size of a pill important?. Science Activities, 2017, 54, 86-95.	0.6	4
119	Catch and release strategy of matrix metalloprotease aptamers <i>via</i> thiol–disulfide exchange reaction on a graphene based electrochemical sensor. Sensors & Diagnostics, 2022, 1, 739-749.	3.8	4
120	Wavelength and coherence effects on the growth mechanism of silicon nanopillars and their use in the modification of spontaneous lifetime emission of BODIPY dye molecules. Applied Physics A: Materials Science and Processing, 2012, 108, 801-807.	2.3	2
121	Humidity sensing mechanism based on the distance dependent interactions between BODIPY dye molecules and gold thin films. Sensors and Actuators A: Physical, 2015, 227, 21-30.	4.1	2
122	Tailoring Aqueous Dispersibility and Biofunctionalization of Carbon Nanotubes Using Maleimide-Containing Clickable Polymers. ACS Applied Polymer Materials, 2021, 3, 5707-5716.	4.4	2
123	The Effect of the Strength and Direction of Magnetic Field on the Assembly of Magnetic Nanoparticles Into Higher Structures. Journal of Nanoscience and Nanotechnology, 2012, 12, 2761-2766.	0.9	1
124	Editorial – A message from the editorial team. Journal of Macromolecular Science - Pure and Applied Chemistry, 2021, 58, 1-1.	2.2	1
125	Maleimide Containing Thiol-Reactive Polymers: Synthesis and Functionalization. , 2017, , 265-293.		1

126 Stimuli-responsive polymer-coated iron oxide nanoparticles as drug delivery platforms. , 2022, , 133-169.

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#	Article	IF	CITATIONS
127	Biodegradable Polymers: Synthesis and Functionalization. , 0, , 776-803.		0

128 Thiol-based Conjugation: Polymeric Material Modification. , 0, , 7847-7883.