Alan J Russell

List of Publications by Citations

180 papers	10,268 citations	54 h-index	96 g-index
188 ext. papers	10,981 ext. citations	9.2 avg, IF	6.11 L-index

#	Paper	IF	Citations
180	Permanent, non-leaching antibacterial surface--2: how high density cationic surfaces kill bacterial cells. *Biomaterials*, **2007**, 28, 4870-9	15.6	569
179	Impact of ionic liquid physical properties on lipase activity and stability. *Journal of the American Chemical Society*, **2003**, 125, 4125-31	16.4	500
178	Permanent, nonleaching antibacterial surfaces. 1. Synthesis by atom transfer radical polymerization. *Biomacromolecules*, **2004**, 5, 877-82	6.9	497
177	Enzymatic catalysis of formation of Z-aspartame in ionic liquid - An alternative to enzymatic catalysis in organic solvents. *Biotechnology Progress*, **2000**, 16, 1129-31	2.8	354
176	Rational modification of enzyme catalysis by engineering surface charge. *Nature*, **1987**, 328, 496-500	50.4	316
175	Synthesis of uniform protein-polymer conjugates. *Biomacromolecules*, **2005**, 6, 3380-7	6.9	281
174	Antibacterial polypropylene via surface-initiated atom transfer radical polymerization. *Biomacromolecules*, **2007**, 8, 1396-9	6.9	275
173	ATRP synthesis of amphiphilic random, gradient, and block copolymers of 2-(dimethylamino)ethyl methacrylate and n-butyl methacrylate in aqueous media. *Biomacromolecules*, **2003**, 4, 1386-93	6.9	246
172	Supercritical Biocatalysis. *Chemical Reviews*, **1999**, 99, 623-634	68.1	235
171	Control of enzyme enantioselectivity by the reaction medium. *Journal of the American Chemical Society*, **1988**, 110, 7236-7237	16.4	201
170	Prediction of electrostatic effects of engineering of protein charges. *Nature*, **1987**, 330, 86-8	50.4	197
169	Nonleaching antibacterial glass surfaces via "Grafting Onto": the effect of the number of quaternary ammonium groups on biocidal activity. *Langmuir*, **2008**, 24, 6785-95	4	186
168	Recyclable antibacterial magnetic nanoparticles grafted with quaternized poly(2-(dimethylamino)ethyl methacrylate) brushes. *Biomacromolecules*, **2011**, 12, 1305-11	6.9	171
167	Enzyme Activity in Supercritical Fluids. *Critical Reviews in Biotechnology*, **1995**, 15, 41-71	9.4	165
166	Biomaterials for mediation of chemical and biological warfare agents. *Annual Review of Biomedical Engineering*, **2003**, 5, 1-27	12	161
165	Electrostatic effects on modification of charged groups in the active site cleft of subtilisin by protein engineering. *Journal of Molecular Biology*, **1987**, 193, 803-13	6.5	154
164	Tailoring the pH dependence of enzyme catalysis using protein engineering. *Nature*, **1985**, 318, 375-376	50.4	148

163	Enzymes in organic solvents: properties and applications. *Journal of Biotechnology*, **1988**, 8, 259-269	3.7	145
162	A Breathing Atom-Transfer Radical Polymerization: Fully Oxygen-Tolerant Polymerization Inspired by Aerobic Respiration of Cells. *Angewandte Chemie - International Edition*, **2018**, 57, 933-936	16.4	129
161	Self-assembly of biocidal nanotubes from a single-chain diacetylene amine salt. *Journal of the American Chemical Society*, **2004**, 126, 13400-5	16.4	122
160	Biocatalytic synthesis of acrylates in organic solvents and supercritical fluids: I. optimization of enzyme environment. *Biotechnology and Bioengineering*, **1992**, 40, 158-66	4.9	115
159	Biocatalytic synthesis of acrylates in organic solvents and supercritical fluids: III. Does carbon dioxide covalently modify enzymes?. *Biotechnology and Bioengineering*, **1995**, 46, 610-20	4.9	113
158	One-Step Biocatalytic Synthesis of Linear Polyesters with Pendant Hydroxyl Groups. *Journal of the American Chemical Society*, **1998**, 120, 9475-9480	16.4	108
157	Activity and Stability of Enzymes Incorporated into Acrylic Polymers. *Journal of the American Chemical Society*, **1995**, 117, 4843-4850	16.4	108
156	The Scar-in-a-Jar: studying potential antifibrotic compounds from the epigenetic to extracellular level in a single well. *British Journal of Pharmacology*, **2009**, 158, 1196-209	8.6	104
155	Light-induced tailoring of PEG-hydrogel properties. *Biomaterials*, **1998**, 19, 1343-52	15.6	100
154	Nerve agents degraded by enzymatic foams. *Nature*, **1998**, 395, 27-8	50.4	99
153	Polymer-based protein engineering can rationally tune enzyme activity, pH-dependence, and stability. *Biomacromolecules*, **2013**, 14, 1919-26	6.9	96
152	Dramatically increased pH and temperature stability of chymotrypsin using dual block polymer-based protein engineering. *Biomacromolecules*, **2014**, 15, 763-71	6.9	89
151	Treatment of rat pancreatic islets with reactive PEG. *Biomaterials*, **2000**, 21, 1155-64	15.6	87
150	Control of enzyme enantioselectivity with pressure changes in supercritical fluoroform. *Journal of the American Chemical Society*, **1993**, 115, 8845-8846	16.4	86
149	Photoscissable Hydrogel Synthesis via Rapid Photopolymerization of Novel PEG-Based Polymers in the Absence of Photoinitiators?. *Journal of the American Chemical Society*, **1996**, 118, 6235-6240	16.4	85
148	Tailoring enzyme activity and stability using polymer-based protein engineering. *Biomaterials*, **2013**, 34, 7437-43	15.6	84
147	Electrospun gold nanofiber electrodes for biosensors. *Biosensors and Bioelectronics*, **2011**, 26, 2981-6	11.8	82
146	Salicylic acid-releasing polyurethane acrylate polymers as anti-biofilm urological catheter coatings. *Acta Biomaterialia*, **2012**, 8, 1869-80	10.8	79

145	Dramatically stabilized phosphotriesterase-polymers for nerve agent degradation. *Biotechnology and Bioengineering*, **1997**, 54, 105-14	4.9	75
144	Surface-active antifungal polyquaternary amine. *Biomacromolecules*, **2006**, 7, 2762-9	6.9	71
143	Control of Subtilisin Substrate Specificity by Solvent Engineering in Organic Solvents and Supercritical Fluoroform. *Journal of the American Chemical Society*, **1996**, 118, 12891-12901	16.4	69
142	Protein extraction and activity in reverse micelles of a nonionic detergent. *Biotechnology and Bioengineering*, **1992**, 39, 806-14	4.9	69
141	Antibody-antigen binding in organic solvents. *Biochemical and Biophysical Research Communications* , **1989**, 158, 80-5	3.4	69
140	Rational Control of Polymer Molecular Weight and Dispersity during Enzyme-Catalyzed Polyester Synthesis in Supercritical Fluids. *Journal of the American Chemical Society*, **1995**, 117, 3728-3733	16.4	66
139	Biocatalytic Solvent-Free Polymerization To Produce High Molecular Weight Polyesters. *Biotechnology Progress*, **1997**, 13, 318-325	2.8	65
138	Direct electron transfer in a mediator-free glucose oxidase-based carbon nanotube-coated biosensor. *Carbon*, **2012**, 50, 4010-4020	10.4	62
137	Sequential delivery of vascular endothelial growth factor and sphingosine 1-phosphate for angiogenesis. *Biomaterials*, **2010**, 31, 7805-12	15.6	62
136	Surface dispersion and hardening of self-assembled diacetylene nanotubes. *Nano Letters*, **2005**, 5, 2202-6	11.5	62
135	Molecular barriers to biomaterial thrombosis by modification of surface proteins with polyethylene glycol. *Biomaterials*, **1998**, 19, 1885-93	15.6	60
134	Polyethylene glycol-induced stabilization of subtilisin. *Enzyme and Microbial Technology*, **1996**, 18, 82-89	3.8	60
133	pH Dependence of subtilisin dispersed in organic solvents. *Journal of the American Chemical Society* , **1993**, 115, 12251-12257	16.4	60
132	Sequential delivery of basic fibroblast growth factor and platelet-derived growth factor for angiogenesis. *Tissue Engineering - Part A*, **2011**, 17, 1181-9	3.9	59
131	Role of diffusion in nonaqueous enzymology. 1. Theory. *Enzyme and Microbial Technology*, **1992**, 14, 265-71	3.8	58
130	Biocatalytic "Oxygen-Fueled" Atom Transfer Radical Polymerization. *Angewandte Chemie - International Edition*, **2018**, 57, 16157-16161	16.4	58
129	Calcium alginate microencapsulation of ovarian follicles impacts FSH delivery and follicle morphology. *Reproductive Biology and Endocrinology*, **2005**, 3, 47	5	57
128	Use of salt hydrate pairs to control water activity for enzyme catalysis in ionic liquids. *Biotechnology Progress*, **2003**, 19, 1029-32	2.8	57

127	A comparison of lipase-catalyzed ester hydrolysis in reverse micelles, organic solvents, and biphasic systems. *Biotechnology and Bioengineering*, **1995**, 47, 60-70	4.9	54
126	Inductive, scaffold-based, regenerative medicine approach to reconstruction of the temporomandibular joint disk. *Journal of Oral and Maxillofacial Surgery*, **2012**, 70, 2656-68	1.8	52
125	Polymer-based protein engineering grown ferrocene-containing redox polymers improve current generation in an enzymatic biofuel cell. *Biosensors and Bioelectronics*, **2016**, 86, 446-453	11.8	49
124	Matrix metalloproteinase-1 therapy improves muscle healing. *Journal of Applied Physiology*, **2007**, 102, 2338-45	3.7	49
123	Matrix metalloproteinase-1 treatment of muscle fibrosis. *Acta Biomaterialia*, **2008**, 4, 1411-20	10.8	48
122	Rational tailoring of substrate and inhibitor affinity via ATRP polymer-based protein engineering. *Biomacromolecules*, **2014**, 15, 2817-23	6.9	45
121	Towards improved artificial lungs through biocatalysis. *Biomaterials*, **2007**, 28, 3131-9	15.6	45
120	Creating molecular barriers to acute platelet deposition on damaged arteries with reactive polyethylene glycol. *Journal of Biomedical Materials Research Part B*, **1998**, 41, 251-6		44
119	Characterizing the modification of surface proteins with poly(ethylene glycol) to interrupt platelet adhesion. *Biomaterials*, **2006**, 27, 3125-35	15.6	44
118	The emerging relationship between regenerative medicine and physical therapeutics. *Physical Therapy*, **2010**, 90, 1807-14	3.3	42
117	Photoimmobilization of organophosphorus hydrolase within a PEG-based hydrogel **1999**, 65, 579-588		42
116	Can enzyme proximity accelerate cascade reactions?. *Scientific Reports*, **2019**, 9, 455	4.9	41
115	Molecular barriers to biomaterial thrombosis by modification of surface proteins with polyethylene glycol. *Biomaterials*, **1999**, 20, 101-9	15.6	41
114	Determination of equilibrium and individual rate constants for subtilisin-catalyzed transesterification in anhydrous environments. *Biotechnology and Bioengineering*, **1992**, 40, 1069-77	4.9	41
113	Characterization of Synthetic Polymers Using Matrix-Assisted Laser Desorption/Ionization Time of Flight Mass Spectrometry. *Macromolecules*, **1996**, 29, 2213-2221	5.5	40
112	Next generation protein-polymer conjugates. *AICHE Journal*, **2018**, 64, 3230-3245	3.6	40
111	Design of Stomach Acid-Stable and Mucin-Binding Enzyme Polymer Conjugates. *Biomacromolecules*, **2017**, 18, 576-586	6.9	39
110	The role of hydration in enzyme activity and stability: 2. Alcohol dehydrogenase activity and stability in a continuous gas phase reactor. *Biotechnology and Bioengineering*, **1996**, 49, 709-16	4.9	38

109	Decontamination of chemical and biological warfare agents with a single multi-functional material. *Biomaterials*, **2010**, 31, 4417-25	15.6	36
108	Solubilization of subtilisin in CO2 using fluoroether-functional amphiphiles. *Biotechnology and Bioengineering*, **1998**, 58, 572-80	4.9	36
107	Poly(N-vinylformamide)-A drag-reducing polymer for biomedical applications. *Biomacromolecules*, **2006**, 7, 1597-603	6.9	36
106	Covalent binding of a nerve agent hydrolyzing enzyme within polyurethane foams. *Biotechnology and Bioengineering*, **1996**, 51, 450-7	4.9	36
105	Organophosphate skin decontamination using immobilized enzymes. *Chemico-Biological Interactions*, **1999**, 119-120, 463-70	5	36
104	Characterization of a nonionic surfactant reversed micellar system for enzyme catalysis. *The Journal of Physical Chemistry*, **1994**, 98, 369-376		35
103	Nonaqueous biocatalytic degradation of a nerve gas mimic. *Biotechnology Progress*, **1995**, 11, 471-4	2.8	35
102	Covalent binding of a nerve agent hydrolyzing enzyme within polyurethane foams **1996**, 51, 450		35
101	Tertiary Structure-Based Prediction of How ATRP Initiators React with Proteins. *ACS Biomaterials Science and Engineering*, **2017**, 3, 2086-2097	5.5	34
100	A Breathing Atom-Transfer Radical Polymerization: Fully Oxygen-Tolerant Polymerization Inspired by Aerobic Respiration of Cells. *Angewandte Chemie*, **2018**, 130, 945-948	3.6	34
99	Synthesis of Polymer Bioconjugates via Photoinduced Atom Transfer Radical Polymerization under Blue Light Irradiation. *ACS Macro Letters*, **2018**, 7, 1248-1253	6.6	34
98	Biocatalytic polyester synthesis: analysis of the evolution of molecular weight and end group functionality. *Biotechnology and Bioengineering*, **1997**, 55, 227-39	4.9	33
97	Atom Transfer Radical Polymerization for Biorelated Hybrid Materials. *Biomacromolecules*, **2019**, 20, 4272-4298	6.9	33
96	Bactericidal Specificity and Resistance Profile of Poly(Quaternary Ammonium) Polymers and Protein-Poly(Quaternary Ammonium) Conjugates. *Biomacromolecules*, **2017**, 18, 2583-2593	6.9	31
95	Do ion tethered functional groups affect IL solvent properties? The case of sulfoxides and sulfones. *Chemical Communications*, **2006**, 646-8	5.8	31
94	High-activity enzyme-polyurethane coatings. *Biotechnology and Bioengineering*, **2002**, 79, 785-94	4.9	31
93	Extracellular matrix as an inductive template for temporomandibular joint meniscus reconstruction: a pilot study. *Journal of Oral and Maxillofacial Surgery*, **2011**, 69, e488-505	1.8	30
92	Synthesis of fluorinated NAD as a soluble coenzyme for enzymatic chemistry in fluorous solvents and carbon dioxide. *Tetrahedron*, **2002**, 58, 4091-4104	2.4	30

91	Enzymatic synthesis of carbonate monomers and polycarbonates. *Biotechnology and Bioengineering* , **1999**, 62, 259-66	4.9	30
90	Vascular Drug Delivery Using Carrier Red Blood Cells: Focus on RBC Surface Loading and Pharmacokinetics. *Pharmaceutics*, **2020**, 12,	6.4	29
89	Irreversible immobilization of diisopropylfluorophosphatase in polyurethane polymers. *Biomacromolecules*, **2000**, 1, 571-6	6.9	29
88	Synthesis of protein-containing polymers in organic solvents. *Biotechnology and Bioengineering*, **1995**, 45, 10-7	4.9	29
87	Polymer-Based Protein Engineering Enables Molecular Dissolution of Chymotrypsin in Acetonitrile. *ACS Macro Letters*, **2016**, 5, 493-497	6.6	29
86	Intramolecular Interactions of Conjugated Polymers Mimic Molecular Chaperones to Stabilize Protein-Polymer Conjugates. *Biomacromolecules*, **2018**, 19, 3798-3813	6.9	28
85	Biocatalytic nerve agent detoxification in fire fighting foams. *Biotechnology and Bioengineering*, **1999**, 62, 659-65	4.9	28
84	Maintenance of morphology and growth of ovarian follicles in suspension culture. *Tissue Engineering*, **2004**, 10, 545-52		27
83	Biocatalytic synthesis of fluorinated polyesters. *Biotechnology Progress*, **2000**, 16, 64-8	2.8	27
82	Enzyme-catalyzed polycondensation reactions for the synthesis of aromatic polycarbonates and polyesters **1999**, 65, 485-489		27
81	Solid-phase synthesis of protein-polymers on reversible immobilization supports. *Nature Communications*, **2018**, 9, 845	17.4	26
80	Effect of hydration on the morphology of enzyme powder. *Biotechnology and Bioengineering*, **1992**, 39, 1171-5	4.9	25
79	The role of hydration in enzyme activity and stability: 1. Water adsorption by alcohol dehydrogenase in a continuous gas phase reactor. *Biotechnology and Bioengineering*, **1996**, 49, 700-8	4.9	24
78	Two-Step biocatalytic conversion of an ester to an aldehyde in reverse micelles. *Biotechnology and Bioengineering*, **1994**, 43, 232-41	4.9	24
77	Enzyme-containing Michael-adduct-based coatings. *Biomacromolecules*, **2003**, 4, 675-82	6.9	23
76	Polyurethane-based leukocyte-inspired biocidal materials. *Biomaterials*, **2009**, 30, 6522-9	15.6	22
75	Biodegradation of pesticides in nonionic water-in-oil microemulsions of tween 85: Relationship between micelle structure and activity. *Biotechnology and Bioengineering*, **1994**, 43, 946-59	4.9	22
74	ATRP-grown protein-polymer conjugates containing phenylpiperazine selectively enhance transepithelial protein transport. *Journal of Controlled Release*, **2017**, 255, 270-278	11.7	21

73	Improved power density of an enzymatic biofuel cell with fibrous supports of high curvature. *RSC Advances*, **2016**, 6, 10150-10158	3.7	21
72	Fighting nerve agent chemical weapons with enzyme technology. *Annals of the New York Academy of Sciences*, **1998**, 864, 153-70	6.5	21
71	A stable three-enzyme creatinine biosensor. 1. Impact of structure, function and environment on PEGylated and immobilized sarcosine oxidase. *Acta Biomaterialia*, **2005**, 1, 173-81	10.8	21
70	Enzymatic dehalogenation of gas phase substrates with haloalkane dehalogenase. *Biotechnology and Bioengineering*, **2000**, 69, 235-241	4.9	21
69	Increasing the tolerance of organophosphorus hydrolase to bleach. *Biotechnology and Bioengineering*, **1999**, 64, 250-4	4.9	21
68	Kinetic analysis of the mechanism for subtilisin in essentially anhydrous organic solvents. *Enzyme and Microbial Technology*, **1993**, 15, 1022-1029	3.8	21
67	Transforming protein-polymer conjugate purification by tuning protein solubility. *Nature Communications*, **2019**, 10, 4718	17.4	20
66	Engineering of cell membranes with a bisphosphonate-containing polymer using ATRP synthesis for bone targeting. *Biomaterials*, **2014**, 35, 9447-58	15.6	20
65	Multifunctional photo-crosslinked polymeric ionic hydrogel films. *Polymer Chemistry*, **2014**, 5, 2824-2835	4.9	18
64	Dynamic oxygen enhances oocyte maturation in long-term follicle culture. *Tissue Engineering - Part C: Methods*, **2009**, 15, 323-32	2.9	18
63	A stable three-enzyme creatinine biosensor. 3. Immobilization of creatinine amidohydrolase and sensor development. *Acta Biomaterialia*, **2005**, 1, 193-9	10.8	18
62	Photoswitchable PEG-CA hydrogels and factors that affect their photosensitivity. *Journal of Polymer Science Part A*, **2000**, 38, 1466-1476	2.5	18
61	Thermoinactivation of diisopropylfluorophosphatase-containing polyurethane polymers. *Biomacromolecules*, **2001**, 2, 664-71	6.9	18
60	Should the high diffusivity of a supercritical fluid increase the rate of an enzyme-catalyzed reaction?. *Enzyme and Microbial Technology*, **1991**, 13, 1007	3.8	18
59	Molecular Sieving on the Surface of a Nano-Armored Protein. *Biomacromolecules*, **2019**, 20, 1235-1245	6.9	18
58	Intramolecular Electron Transfer through Poly-Ferrocenyl Glucose Oxidase Conjugates to Carbon Electrodes: 1. Sensor Sensitivity, Selectivity and Longevity. *Electrochimica Acta*, **2017**, 248, 578-584	6.7	17
57	Directed capture of enzymes and bacteria on bioplastic films. *Biomacromolecules*, **2003**, 4, 850-5	6.9	17
56	A stable three enzyme creatinine biosensor. 2. Analysis of the impact of silver ions on creatine amidinohydrolase. *Acta Biomaterialia*, **2005**, 1, 183-91	10.8	17

55	The phase behavior of fluorinated diols, divinyl adipate and a fluorinated polyester in supercritical carbon dioxide. *Fluid Phase Equilibria*, **2001**, 178, 169-177	2.5	17
54	Commercial samples of subtilisin BPN?. *Nature*, **1986**, 321, 733-733	50.4	17
53	Polyethylene glycol diisocyanate decreases platelet deposition after balloon injury of rabbit femoral arteries. *Journal of Thrombosis and Thrombolysis*, **2002**, 13, 27-33	5.1	16
52	Patents and literature. *Applied Biochemistry and Biotechnology*, **1991**, 31, 197-211	3.2	16
51	Optimization of Baker's Yeast Alcohol Dehydrogenase Activity in an Organic Solvent. *Biotechnology Progress*, **1993**, 9, 234-241	2.8	16
50	Charge-Preserving Atom Transfer Radical Polymerization Initiator Rescues the Lost Function of Negatively Charged Protein-Polymer Conjugates. *Biomacromolecules*, **2019**, 20, 2392-2405	6.9	15
49	Use of a batch-stirred reactor to rationally tailor biocatalytic polytransesterification **2000**, 67, 424-434		15
48	Polymer-enhanced biomacromolecules. *Progress in Polymer Science*, **2020**, 101, 101194	29.6	15
47	The end of the beginning for tissue engineering. *Lancet, The*, **2014**, 383, 193-5	40	14
46	Rational protein modification leading to resistance of enzymes to TiO2-UV irradiation-induced inactivation. *Biomacromolecules*, **2004**, 5, 1947-55	6.9	14
45	Catalytic buffers enable positive-response inhibition-based sensing of nerve agents. *Biotechnology and Bioengineering*, **2002**, 77, 352-7	4.9	14
44	Erythrocytes as carriers of immunoglobulin-based therapeutics. *Acta Biomaterialia*, **2020**, 101, 422-435	10.8	14
43	Structure-function-dynamics of Echymotrypsin based conjugates as a function of polymer charge. *Soft Matter*, **2020**, 16, 456-465	3.6	14
42	High pressure EPR studies of protein mobility in reversed micelles. *Biotechnology and Bioengineering*, **1994**, 43, 342-8	4.9	13
41	Tailoring Site Specificity of Bioconjugation Using Step-Wise Atom-Transfer Radical Polymerization on Proteins. *Biomacromolecules*, **2018**, 19, 4044-4051	6.9	12
40	Enhancing enzyme stability against TiO2-UV induced inactivation. *Biomacromolecules*, **2005**, 6, 475-82	6.9	11
39	Study of enzyme-catalyzed reactions in organic solvents using multiple linear regression. *Journal of Molecular Catalysis B: Enzymatic*, **1999**, 7, 273-282		11
38	Polymer-Based Protein Engineering: Synthesis and Characterization of Armored, High Graft Density Polymer-Protein Conjugates. *Methods in Enzymology*, **2017**, 590, 347-380	1.7	10

37	Meeting the need for regenerative therapies I: target-based incidence and its relationship to U.S. spending, productivity, and innovation. *Tissue Engineering - Part B: Reviews*, **2012**, 18, 139-54	7.9	10
36	Modification of enzyme catalysis by engineering surface charge. *Methods in Enzymology*, **1991**, 202, 620-43	1.7	9
35	Enzymes in organic solvents. *Biochemical Society Transactions*, **1989**, 17, 1145	5.1	9
34	Biocatalytic Oxygen-Fueled Atom Transfer Radical Polymerization. *Angewandte Chemie*, **2018**, 130, 16389-16393	3.6	9
33	Rapid biocatalytic polytransesterification: reaction kinetics in an exothermic reaction. *Biotechnology and Bioengineering*, **1998**, 59, 428-37	4.9	8
32	Enzyme sheathing enables nanoscale solubilization of biocatalyst and dramatically increases activity in organic solvent. *Biomacromolecules*, **2008**, 9, 1348-51	6.9	8
31	Activity of Thiolsubtilisin in Organic Solvents. *Biotechnology Progress*, **1992**, 8, 256-258	2.8	8
30	Tuning Butyrylcholinesterase Inactivation and Reactivation by Polymer-Based Protein Engineering. *Advanced Science*, **2020**, 7, 1901904	13.6	7
29	Meeting the need for regenerative therapies: translation-focused analysis of U.S. regenerative medicine opportunities in cardiovascular and peripheral vascular medicine using detailed incidence data. *Tissue Engineering - Part B: Reviews*, **2013**, 19, 99-115	7.9	6
28	Tailoring the trajectory of cell rolling with cytotactic surfaces. *Langmuir*, **2011**, 27, 15345-51	4	6
27	Solubilization and activity of proteins in compressible-fluid based microemulsions. *Nature Biotechnology*, **1992**, 10, 1584-8	44.5	6
26	Moving into the Clinic **2007**, 15-31		5
25	The Effect of Covalently-Attached ATRP-Synthesized Polymers on Membrane Stability and Cytoprotection in Human Erythrocytes. *PLoS ONE*, **2016**, 11, e0157641	3.7	5
24	Catalytic Detoxification of Organophosphorus Nerve Agents by Butyrylcholinesterase-Polymer-Oxime Bioscavengers. *Biomacromolecules*, **2020**, 21, 3867-3877	6.9	5
23	Enzyme Activity Using a Perfluoropolyether-Modified NAD(H) in Fluorous Solvents and Carbon Dioxide. *ACS Symposium Series*, **2002**, 64-81	0.4	4
22	Molecular Dynamics-Guided Design of a Functional Protein-ATRP Conjugate That Eliminates Protein-Protein Interactions. *Bioconjugate Chemistry*, **2021**, 32, 821-832	6.3	4
21	Organophosphate detoxification by membrane-engineered red blood cells. *Acta Biomaterialia*, **2021**, 124, 270-281	10.8	4
20	Versatile non-contact micro-manipulation method using rotational flows locally induced by magnetic microrobots **2014**,		3

19	Intact mangrove root electrodes for desalination.. *RSC Advances*, **2019**, 9, 4735-4743	3.7	3
18	Utilization of the Polymer Sieving Effect for the Removal of the Small Molecule Biotin-CDM. *ACS Applied Polymer Materials*, **2019**, 1, 2897-2906	4.3	3
17	Blood soluble polymers for enhancing near-vessel-wall RBC traffic in presence of hemoglobin based oxygen carrier. *International Journal of Engineering Science*, **2014**, 83, 138-145	5.7	2
16	Intramolecular Electron Transfer through Poly-Ferrocenyl Glucose Oxidase Conjugates to Carbon Electrodes: 2. Mechanistic Understanding of Long-Term Stability. *Electrochimica Acta*, **2017**, 246, 294-302	6.7	2
15	Enhancing bioplastic-substrate interaction via pore induction and directed migration of enzyme location. *Biotechnology and Bioengineering*, **2004**, 86, 628-36	4.9	2
14	Solubilization and Activity of Proteins in Supercritical Fluids. *Annals of the New York Academy of Sciences*, **1992**, 672, 283-292	6.5	2
13	A comprehensive analysis in one run - in-depth conformation studies of protein-polymer chimeras by asymmetrical flow field-flow fractionation. *Chemical Science*, **2021**, 12, 13848-13856	9.4	2
12	Incorporation of Poly(ethylene glycol)-Proteins into Polymers. *ACS Symposium Series*, **1997**, 134-144	0.4	1
11	Solubilization and Activity of Proteins in Supercritical Fluids. *Annals of the New York Academy of Sciences*, **1992**, 672, 283-292	6.5	1
10	Ligands and characterization for effective bio-atom-transfer radical polymerization. *Journal of Polymer Science*, **2020**, 58, 42-47	2.4	1
9	Non-quaternary oximes detoxify nerve agents and reactivate nerve agent-inhibited human butyrylcholinesterase. *Communications Biology*, **2021**, 4, 573	6.7	1
8	Use of a batch-stirred reactor to rationally tailor biocatalytic polytransesterification **2000**, 67, 424		1
7	Enzymatic dehalogenation of gas phase substrates with haloalkane dehalogenase **2000**, 69, 235		1
6	Dynamic Oxygen Enhances Oocyte Maturation in Long-Term Follicle Culture. *Tissue Engineering - Part A*,110306231138043	3.9	0
5	Moving into the Clinic **2014**, 57-81		
4	Military Needs and Solutions in Regenerative Medicine **2008**, 1322-1332		
3	Expression of ELytic Protease in Bacillus Subtilis. *Biocatalysis*, **1994**, 11, 283-304		
2	Ligands and characterization for effective bio-atom-transfer radical polymerization. *Journal of Polymer Science*, **2020**, 58, 42-47	2.4	

1 Introduction: History of Regenerative Medicine **2009**, 1-13