Russell J Stewart

List of Publications by Year
in descending order

41 papers	3,014 citations	236612 25 h-index	288905 40 g-index
46 all docs	46 docs citations	46 times ranked	2835 citing authors

#	Article	IF	Citations
1	Hybrid hydrogels assembled from synthetic polymers and coiled-coil protein domains. Nature, 1999, 397, 417-420.	13.7	556
2	Complex coacervates as a foundation for synthetic underwater adhesives. Advances in Colloid and Interface Science, 2011, 167, 85-93.	7.0	276
3	Natural underwater adhesives. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 757-771.	2.4	272
4	The tube cement of Phragmatopoma californica: a solid foam. Journal of Experimental Biology, 2004, 207, 4727-4734.	0.8	228
5	The role of coacervation and phase transitions in the sandcastle worm adhesive system. Advances in Colloid and Interface Science, 2017, 239, 88-96.	7.0	124
6	Hybrid Hydrogels Cross-Linked by Genetically Engineered Coiled-Coil Block Proteins. Biomacromolecules, 2001, 2, 912-920.	2.6	113
7	Adaptation of Caddisfly Larval Silks to Aquatic Habitats by Phosphorylation of H-Fibroin Serines. Biomacromolecules, 2010, 11, 969-974.	2.6	106
8	Multipart Copolyelectrolyte Adhesive of the Sandcastle Worm, <i>Phragmatopoma californica</i> (Fewkes): Catechol Oxidase Catalyzed Curing through Peptidyl-DOPA. Biomacromolecules, 2013, 14, 1607-1617.	2.6	101
9	Protein-based underwater adhesives and the prospects for their biotechnological production. Applied Microbiology and Biotechnology, 2011, 89, 27-33.	1.7	95
10	Multiscale Structure of the Underwater Adhesive ofPhragmatopoma Californica:Â a Nanostructured Latex with a Steep Microporosity Gradient. Langmuir, 2007, 23, 5045-5049.	1.6	82
11	Polarized Alignment and Surface Immobilization of Microtubules for Kinesin-Powered Nanodevices. Nano Letters, 2001, 1, 277-280.	4.5	81
12	Working strokes by single molecules of the kinesin-related microtubule motor ncd. Nature Cell Biology, 2000, 2, 724-729.	4.6	76
13	Î²-Sheet Nanocrystalline Domains Formed from Phosphorylated Serine-Rich Motifs in Caddisfly Larval Silk: A Solid State NMR and XRD Study. Biomacromolecules, 2013, 14, 1140-1148.	2.6	69
14	Localization of the bioadhesive precursors of the sandcastle worm, <i>Phragmatopoma californica</i> (Fewkes). Journal of Experimental Biology, 2012, 215, 351-361.	0.8	68
15	Motility of Dimeric Ncd on a Metal-Chelating Surfactant:â€‰ Evidence That Ncd Is Not Processive. Biochemistry, 1999, 38, 5076-5081.	1.2	65
16	Self-Tensioning Aquatic Caddisfly Silk: Ca²⁺-Dependent Structure, Strength, and Load Cycle Hysteresis. Biomacromolecules, 2013, 14, 3668-3681.	2.6	64
17	Glueomics: An Expression Survey of the Adhesive Gland of the Sandcastle Worm. Journal of Adhesion, 2009, 85, 546-559.	1.8	52
18	Self-recovering caddisfly silk: energy dissipating, Ca²⁺-dependent, double dynamic network fibers. Soft Matter, 2015, 11, 1667-1676.	1.2	48

#	Article	IF	Citations
19	Waterâ€Borne Endovascular Embolics Inspired by the Undersea Adhesive of Marine Sandcastle Worms. Advanced Healthcare Materials, 2016, 5, 795-801.	3.9	47
20	Peroxinectin catalyzed dityrosine crosslinking in the adhesive underwater silk of a casemaker caddisfly larvae, Hysperophylax occidentalis. Insect Biochemistry and Molecular Biology, 2014, 54, 69-79.	1.2	46
21	Responsive Hybrid Hydrogels with Volume Transitions Modulated by a Titin Immunoglobulin Module. Bioconjugate Chemistry, 2000, 11, 734-740.	1.8	44
22	The genome of an underwater architect, the caddisfly<i>Stenopsyche tienmushanensis</i>Hwang (Insecta: Trichoptera). GigaScience, 2018, 7, .	3.3	41
23	Imaging microtubules and kinesin decorated microtubules using tapping mode atomic force microscopy in fluids. European Biophysics Journal, 2000, 28, 611-620.	1.2	40
24	Toughened hydrogels inspired by aquatic caddisworm silk. Soft Matter, 2015, 11, 6981-6990.	1.2	39
25	De novo design of biomedical polymers: hybrids from synthetic macromolecules and genetically engineered protein domains. Macromolecular Symposia, 2001, 174, 31-42.	0.4	27
26	Exploring the underwater silken architectures of caddisworms: comparative silkomics across two caddisfly suborders. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20190206.	1.8	25
27	Genome size evolution in the diverse insect order Trichoptera. GigaScience, 2022, 11, .	3.3	24
28	Aquatic caddisworm silk is solidified by environmental metal ions during the natural fiberâ€spinning process. FASEB Journal, 2019, 33, 572-583.	0.2	23
29	Annotated Draft Genomes of Two Caddisfly Species Plectrocnemia conspersa CURTIS and Hydropsyche tenuis NAVAS (Insecta: Trichoptera). Genome Biology and Evolution, 2019, 11, 3445-3451.	1.1	21
30	Complex coacervation. Soft Matter, 2018, 14, 329-330.	1.2	20
31	Peroxidase-catalysed interfacial adhesion of aquatic caddisworm silk. Journal of the Royal Society Interface, 2015, 12, 20150710.	1.5	19
32	Aqueous Liquid-Liquid Phase Separation of Natural and Synthetic Polyguanidiniums. Polymers, 2019, 11, 649.	2.0	18
33	Long-read HiFi sequencing correctly assembles repetitive heavy fibroin silk genes in new moth and caddisfly genomes. GigaByte, 0, 2022, 1-14.	0.0	17
34	Sustained tobramycin release from polyphosphate double network hydrogels. Acta Biomaterialia, 2017, 50, 484-492.	4.1	15
35	Connecting caddisworm silk structure and mechanical properties: combined infrared spectroscopy and mechanical analysis. Open Biology, 2016, 6, 160067.	1.5	14
36	Draft Genome Assemblies and Annotations of <i>Agrypnia vestita</i> Walker, and <i>Hesperophylax magnus</i> Banks Reveal Substantial Repetitive Element Expansion in Tube Case-Making Caddisflies (Insecta: Trichoptera). Genome Biology and Evolution, 2021, 13, .	1.1	14

#	Article	IF	Citations
37	Complex coacervation of Mg(<scp>ii</scp>) phospho-polymethacrylate, a synthetic analog of sandcastle worm adhesive phosphoproteins. Soft Matter, 2018, 14, 379-386.	1.2	11
38	Rapid Entrapment of Phenazine Ethosulfate within a Polyelectrolyte Complex on Electrodes for Efficient NAD+ Regeneration in Mediated NAD+-Dependent Bioelectrocatalysis. ACS Applied Materials & Interfaces, 2021, 13, 10942-10951.	4.0	10
39	A model for swelling changes in a covalently crosslinked gel caused by unfolding of folded domains. Polymer Bulletin, 2001, 47, 351-358.	1.7	8
40	Direct bioelectrocatalysis by redox enzymes immobilized in electrostatically condensed oppositely charged polyelectrolyte electrode coatings. Analyst, The, 2020, 145, 1250-1257.	1.7	8
41	Formation of Biofunctional Thin Films on Gold Electrodes by Electrodeposition of Poly(acrylamide-<i>co</i>-tyrosineamide). Macromolecules, 2008, 41, 448-452.	2.2	2