CÃ©sar RodrÃ-guez Emmenegger

List of Publications by Year
in descending order

90 papers	3,658 citations	94269 37 h-index	143772 57 g-index
93 all docs	93 docs citations	93 times ranked	3921 citing authors

#	Article	IF	Citations
1	Interaction of Blood Plasma with Antifouling Surfaces. Langmuir, 2009, 25, 6328-6333.	1.6	242
2	Polymer Brushes Showing Nonâ€Fouling in Blood Plasma Challenge the Currently Accepted Design of Protein Resistant Surfaces. Macromolecular Rapid Communications, 2011, 32, 952-957.	2.0	184
3	Controlled Cell Adhesion on Poly(dopamine) Interfaces Photopatterned with Nonâ€Fouling Brushes. Advanced Materials, 2013, 25, 6123-6127.	11.1	180
4	Complete Identification of Proteins Responsible for Human Blood Plasma Fouling on Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.6	121
5	Surfaces Resistant to Fouling from Biological Fluids: Towards Bioactive Surfaces for Real Applications. Macromolecular Bioscience, 2012, 12, 1413-1422.	2.1	85
6	Photoâ€Patterning of Nonâ€Fouling Polymers and Biomolecules on Paper. Advanced Materials, 2014, 26, 4087-4092.	11.1	79
7	Functionalized ultra-low fouling carboxy- and hydroxy-functional surface platforms: functionalization capacity, biorecognition capability and resistance to fouling from undiluted biological media. Biosensors and Bioelectronics, 2014, 51, 150-157.	5.3	78
8	Biomimetic non-fouling surfaces: extending the concepts. Journal of Materials Chemistry B, 2013, 1, 2859.	2.9	76
9	Poly(HEMA) brushes emerging as a new platform for direct detection of food pathogen in milk samples. Biosensors and Bioelectronics, 2011, 26, 4545-4551.	5.3	74
10	Substrate-Independent Approach for the Generation of Functional Protein Resistant Surfaces. Biomacromolecules, 2011, 12, 1058-1066.	2.6	73
11	Quantifying bacterial adhesion on antifouling polymer brushes via single-cell force spectroscopy. Polymer Chemistry, 2015, 6, 5740-5751.	1.9	70
12	Novel antifouling self-healing poly(carboxybetaine methacrylamide-co-HEMA) nanocomposite hydrogels with superior mechanical properties. Journal of Materials Chemistry B, 2013, 1, 5644.	2.9	69
13	Antifouling Polymer Brushes Displaying Antithrombogenic Surface Properties. Biomacromolecules, 2016, 17, 1179-1185.	2.6	68
14	Diagnosis of Epsteinâ€“Barr virus infection in clinical serum samples by an SPR biosensor assay. Biosensors and Bioelectronics, 2014, 55, 278-284.	5.3	67
15	Sensitive and rapid detection of aflatoxin M1 in milk utilizing enhanced SPR and p(HEMA) brushes. Biosensors and Bioelectronics, 2016, 81, 159-165.	5.3	66
16	Non-fouling Hydrogels of 2-Hydroxyethyl Methacrylate and Zwitterionic Carboxybetaine (Meth)acrylamides. Biomacromolecules, 2012, 13, 4164-4170.	2.6	63
17	Hepatitis B plasmonic biosensor for the analysis of clinical serum samples. Biosensors and Bioelectronics, 2016, 85, 272-279.	5.3	63
18	SET-LRP of N-(2-hydroxypropyl)methacrylamide in H2O. Polymer Chemistry, 2013, 4, 2424.	1.9	62

#	Article	IF	Citations
19	Polymer Brush-Functionalized Chitosan Hydrogels as Antifouling Implant Coatings. Biomacromolecules, 2017, 18, 1983-1992.	2.6	61
20	Synthesis of non-fouling poly[N-(2-hydroxypropyl)methacrylamide] brushes by photoinduced SET-LRP. Polymer Chemistry, 2015, 6, 4210-4220.	1.9	59
21	Designâ€“functionality relationships for adhesion/growth-regulatory galectins. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2837-2842.	3.3	57
22	Polymer Brushes Interfacing Blood as a Route Toward High Performance Blood Contacting Devices. Macromolecular Bioscience, 2015, 15, 636-646.	2.1	56
23	Improving Hemocompatibility of Membranes for Extracorporeal Membrane Oxygenators by Grafting Nonthrombogenic Polymer Brushes. Macromolecular Bioscience, 2018, 18, 1700359.	2.1	53
24	Low Temperature Aqueous Living/Controlled (RAFT) Polymerization of Carboxybetaine Methacrylamide up to High Molecular Weights. Macromolecular Rapid Communications, 2011, 32, 958-965.	2.0	52
25	Controlled/Living Surfaceâ€initiated ATRP of Antifouling Polymer Brushes from Gold in PBS and Blood Sera as a Model Study for Polymer Modifications in Complex Biological Media. Macromolecular Bioscience, 2012, 12, 525-532.	2.1	52
26	Controlled growth of protein resistant PHEMA brushes via S-RAFT polymerization. Journal of Materials Chemistry B, 2013, 1, 6027.	2.9	51
27	Exploiting end group functionalization for the design of antifouling bioactive brushes. Polymer Chemistry, 2014, 5, 4124-4131.	1.9	51
28	Encoding biological recognition in a bicomponent cell-membrane mimic. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5376-5382.	3.3	51
29	Surface Grafting via Photoâ€induced Copperâ€Mediated Radical Polymerization at Extremely Low Catalyst Concentrations. Macromolecular Rapid Communications, 2015, 36, 1681-1686.	2.0	50
30	Use of pooled blood plasmas in the assessment of fouling resistance. RSC Advances, 2014, 4, 2318-2321.	1.7	48
31	Spatially Controlled Photochemical Peptide and Polymer Conjugation on Biosurfaces. Biomacromolecules, 2013, 14, 4340-4350.	2.6	46
32	Hierarchical antifouling brushes for biosensing applications. Sensors and Actuators B: Chemical, 2014, 202, 1313-1321.	4.0	44
33	Phototriggered Functionalization of Hierarchically Structured Polymer Brushes. Langmuir, 2015, 31, 5899-5907.	1.6	43
34	Plasmonic Hepatitis B Biosensor for the Analysis of Clinical Saliva. Analytical Chemistry, 2017, 89, 2972-2977.	3.2	42
35	Encapsulation of hydrophobic components in dendrimersomes and decoration of their surface with proteins and nucleic acids. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15378-15385.	3.3	41
36	Polymeric nanocapsules ultra stable in complex biological media. Colloids and Surfaces B: Biointerfaces, 2011, 83, 376-381.	2.5	39

#	Article	IF	Citations
37	Membrane-Mimetic Dendrimersomes Engulf Living Bacteria via Endocytosis. Nano Letters, 2019, 19, 5732-5738.	4.5	38
38	Compact Grating-Coupled Biosensor for the Analysis of Thrombin. ACS Sensors, 2019, 4, 2109-2116.	4.0	38
39	Macromolecular Surface Design: Photopatterning of Functional Stable Nitrile Oxides. Angewandte Chemie - International Edition, 2015, 54, 5777-5783.	7.2	37
40	Nanovesicles displaying functional linear and branched oligomannose self-assembled from sequence-defined Janus glycodendrimers. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11931-11939.	3.3	37
41	Screening Libraries of Amphiphilic Janus Dendrimers Based on Natural Phenolic Acids to Discover Monodisperse Unilamellar Dendrimersomes. Biomacromolecules, 2019, 20, 712-727.	2.6	36
42	Grafting of functional methacrylate polymer brushes by photoinduced SET-LRP. Polymer Chemistry, 2016, 7, 6934-6945.	1.9	34
43	Self-assembling zwitterionic carboxybetaine copolymers via aqueous SET-LRP from hemicellulose multi-site initiators. Polymer Chemistry, 2012, 3, 2920.	1.9	33
44	A facile avenue to conductive polymer brushes via cyclopentadieneâ€“maleimide Dielsâ€“Alder ligation. Chemical Communications, 2013, 49, 8623.	2.2	33
45	Clickable Antifouling Polymer Brushes for Polymer Pen Lithography. ACS Applied Materials & Interfaces, 2017, 9, 12109-12117.	4.0	33
46	Matterâ€‹tag: A universal immobilization platform for enzymes on polymers, metals, and siliconâ€based materials. Biotechnology and Bioengineering, 2020, 117, 49-61.	1.7	32
47	Surface plasmon resonance-based aptasensor for direct monitoring of thrombin in a minimally processed human blood. Sensors and Actuators B: Chemical, 2020, 320, 128380.	4.0	32
48	The potential advantages of using a poly(HPMA) brush in urinary catheters: effects on biofilm cells and architecture. Colloids and Surfaces B: Biointerfaces, 2020, 191, 110976.	2.5	32
49	Rapid Thiolâ€Yneâ€Mediated Fabrication and Dual Postfunctionalization of Microâ€Resolved 3D Mesostructures. Advanced Functional Materials, 2015, 25, 3735-3744.	7.8	31
50	Nanoparticles of the poly([N-(2-hydroxypropyl)]methacrylamide)-b-poly[2-(diisopropylamino)ethyl methacrylate] diblock copolymer for pH-triggered release of paclitaxel. Polymer Chemistry, 2015, 6, 4946-4954.	1.9	31
51	Enhanced Concanavalinâ€…A Binding to Preorganized Mannose Nanoarrays in Glycodendrimersomes Revealed Multivalent Interactions. Angewandte Chemie - International Edition, 2021, 60, 8352-8360.	7.2	31
52	A bioinspired light induced avenue for the design of patterned functional interfaces. Journal of Materials Chemistry B, 2014, 2, 36-40.	2.9	30
53	Suppressing Pseudomonas aeruginosa adhesion via non-fouling polymer brushes. RSC Advances, 2014, 4, 64781-64790.	1.7	28
54	Catalyst-free â€œclickâ€•functionalization of polymer brushes preserves antifouling properties enabling detection in blood plasma. Analytica Chimica Acta, 2017, 971, 78-87.	2.6	27

#	Article	IF	Citations
55	Effect of shear stress on the reduction of bacterial adhesion to antifouling polymers. Bioinspiration and Biomimetics, 2018, 13, 065001.	1.5	27
56	Direct Visualization of Vesicle Disassembly and Reassembly Using Photocleavable Dendrimers Elucidates Cargo Release Mechanisms. ACS Nano, 2020, 14, 7398-7411.	7.3	27
57	Photoâ€Induced Functionalization of Spherical and Planar Surfaces via Caged Thioaldehyde Endâ€Functional Polymers. Advanced Functional Materials, 2014, 24, 5649-5661.	7.8	25
58	Kill&Repel Coatings: The Marriage of Antifouling and Bactericidal Properties to Mitigate and Treat Wound Infections. Advanced Functional Materials, 2022, 32, 2106656.	7.8	24
59	Photoinduced Upgrading of Lactic Acid-Based Solvents to Block Copolymer Surfactants. ACS Sustainable Chemistry and Engineering, 2020, 8, 1276-1284.	3.2	22
60	Designing Molecular Printboards: A Photolithographic Platform for Recodable Surfaces. Chemistry - A European Journal, 2015, 21, 13186-13190.	1.7	21
61	Nonâ€Fouling Biodegradable Poly(Ïµâ€caprolactone) Nanofibers for Tissue Engineering. Macromolecular Bioscience, 2016, 16, 83-94.	2.1	21
62	Light-induced modification of silver nanoparticles with functional polymers. Chemical Communications, 2014, 50, 4430-4433.	2.2	18
63	Polymer Brush Collapse under Shear Flow. Macromolecules, 2017, 50, 1215-1224.	2.2	18
64	Efficacy of A Poly(MeOEGMA) Brush on the Prevention of Escherichia coli Biofilm Formation and Susceptibility. Antibiotics, 2020, 9, 216.	1.5	18
65	Unraveling topology-induced shape transformations in dendrimersomes. Soft Matter, 2021, 17, 254-267.	1.2	18
66	A facile one-pot route to poly(carboxybetaine acrylamide) functionalized SWCNTs. Chemical Communications, 2013, 49, 6734.	2.2	17
67	Surface plasmon resonance: advances of label-free approaches in the analysis of biological samples. Bioanalysis, 2014, 6, 3325-3336.	0.6	17
68	Fusing Catechol-Driven Surface Anchoring with Rapid Hetero Dielsâ€“Alder Ligation. ACS Macro Letters, 2014, 3, 1169-1173.	2.3	17
69	Turning a Killing Mechanism into an Adhesion and Antifouling Advantage. Advanced Materials Interfaces, 2019, 6, 1900847.	1.9	16
70	Improving Hemocompatibility: How Can Smart Surfaces Direct Blood To Fight against Thrombi. ACS Applied Materials & Interfaces, 2021, 13, 11696-11707.	4.0	15
71	Catalyst-free site-specific surface modifications of nanocrystalline diamond films via microchannel cantilever spotting. RSC Advances, 2016, 6, 57820-57827.	1.7	14
72	Antifouling Microparticles To Scavenge Lipopolysaccharide from Human Blood Plasma. Biomacromolecules, 2019, 20, 959-968.	2.6	13

#	Article	IF	Citations
73	Brushâ€Like Interface on Surfaceâ€Attached Hydrogels Repels Proteins and Bacteria. Macromolecular Bioscience, 2022, 22, e2200025.	2.1	13
74	Ultrathin Monomolecular Films and Robust Assemblies Based on Cyclic Catechols. Langmuir, 2017, 33, 670-679.	1.6	9
75	Controlled Surface Adhesion of Macrophages via Patterned Antifouling Polymer Brushes. Advanced NanoBiomed Research, 2021, 1, 2000029.	1.7	8
76	Dendrimersome Synthetic Cells Harbor Cell Division Machinery of Bacteria. Advanced Materials, 2022, 34, e2202364.	11.1	7
77	Unraveling the Mechanism and Kinetics of Binding of an LCIâ€eGFPâ€Polymer for Antifouling Coatings. Macromolecular Bioscience, 2021, 21, e2100158.	2.1	6
78	Ionic Combisomes: A New Class of Biomimetic Vesicles to Fuse with Life. Advanced Science, 2022, 9, e2200617.	5.6	6
79	Total removal of intact blood plasma proteins deposited on surface-grafted polymer brushes. Analytical Methods, 2016, 8, 6415-6419.	1.3	5
80	Zwitterionic Functionalizable Scaffolds with Gyroid Pore Architecture for Tissue Engineering. Macromolecular Bioscience, 2019, 19, e1800403.	2.1	5
81	Interactive Hemocompatible Nanocoating to Prevent Surfaceâ€Induced Coagulation in Medical Devices. Advanced Materials Interfaces, 2022, 9, .	1.9	5
82	Complement Activation Dramatically Accelerates Blood Plasma Fouling On Antifouling Poly(2â€hydroxyethyl methacrylate) Brush Surfaces. Macromolecular Bioscience, 2022, 22, e2100460.	2.1	4
83	Evaluation of Dibenzocyclooctyne and Bicyclononyne Click Reaction on Azidoâ€Functionalized Antifouling Polymer Brushes via Microspotting. Advanced Materials Interfaces, 2022, 9, .	1.9	4
84	Oriented immobilization of Pep19-2.5 on antifouling brushes suppresses the development of Staphylococcus aureus biofilms. Progress in Organic Coatings, 2022, 163, 106609.	1.9	3
85	An engineered coccolith-based hybrid that transforms light into swarming motion. Cell Reports Physical Science, 2021, 2, 100373.	2.8	2
86	Structure protects function - An enabler for the functionalization of component surfaces by biohybrid coatings. Procedia CIRP, 2022, 110, 133-138.	1.0	2
87	Globular Hydrophilic Poly(acrylate)s by an Arborescent Grafting-from Synthesis. Macromolecules, 2022, 55, 2222-2234.	2.2	1
88	Macromol. Rapid Commun. 18/2015. Macromolecular Rapid Communications, 2015, 36, 1696-1696.	2.0	0
89	Non-Fouling Biodegradable Poly(Ïµ-caprolactone) Nanofi bers for Tissue Engineering. Macromolecular Bioscience, 2016, 16, 82-82.	2.1	0
90	Enhanced Concanavalinâ€…A Binding to Preorganized Mannose Nanoarrays in Glycodendrimersomes Revealed Multivalent Interactions. Angewandte Chemie, 2021, 133, 8433-8441.	1.6	0