MarÃ-a Valeria GrazÃº Bonavia

List of Publications by Year
in descending order

67 papers	4,595 citations	87843 38 h-index	98753 67 g-index
67 all docs	67 docs citations	67 times ranked	6861 citing authors

#	Article	IF	Citations
1	Multifunctional Nanocarriers for diagnostics, drug delivery and targeted treatment across blood-brain barrier: perspectives on tracking and neuroimaging. Particle and Fibre Toxicology, 2010, 7, 3.	2.8	386
2	Glyoxyl agarose: A fully inert and hydrophilic support for immobilization and high stabilization of proteins. Enzyme and Microbial Technology, 2006, 39, 274-280.	1.6	347
3	Revisiting 30 years of biofunctionalization and surface chemistry of inorganic nanoparticles for nanomedicine. Frontiers in Chemistry, 2014, 2, 48.	1.8	319
4	Immobilization of enzymes on heterofunctional epoxy supports. Nature Protocols, 2007, 2, 1022-1033.	5.5	269
5	Some special features of glyoxyl supports to immobilize proteins. Enzyme and Microbial Technology, 2005, 37, 456-462.	1.6	257
6	Controlled antibody/(bio-) conjugation of inorganic nanoparticles for targeted delivery. Advanced Drug Delivery Reviews, 2013, 65, 677-688.	6.6	169
7	Tailoring the Synthesis and Heating Ability of Gold Nanoprisms for Bioapplications. Langmuir, 2012, 28, 8965-8970.	1.6	167
8	Taking Advantage of Unspecific Interactions to Produce Highly Active Magnetic Nanoparticleâ˜Antibody Conjugates. ACS Nano, 2011, 5, 4521-4528.	7.3	133
9	Monosaccharides versus PEG-Functionalized NPs: Influence in the Cellular Uptake. ACS Nano, 2012, 6, 1565-1577.	7.3	131
10	Improved stabilization of chemically aminated enzymes via multipoint covalent attachment on glyoxyl supports. Journal of Biotechnology, 2005, 116, 1-10.	1.9	114
11	Stabilization of Penicillin G Acylase from Escherichia coli : Site-Directed Mutagenesis of the Protein Surface To Increase Multipoint Covalent Attachment. Applied and Environmental Microbiology, 2004, 70, 1249-1251.	1.4	111
12	Solid-Phase Chemical Amination of a Lipase from Bacillus thermocatenulatus To Improve Its Stabilization via Covalent Immobilization on Highly Activated Glyoxyl-Agarose. Biomacromolecules, 2008, 9, 2553-2561.	2.6	98
13	Synthesis and Properties of Multifunctional Tetragonal Eu:GdPO₄ Nanocubes for Optical and Magnetic Resonance Imaging Applications. Inorganic Chemistry, 2013, 52, 647-654.	1.9	98
14	Engineering biofunctional magnetic nanoparticles for biotechnological applications. Nanoscale, 2010, 2, 1746.	2.8	96
15	Applying the Retroâ€Enantio Approach To Obtain a Peptide Capable of Overcoming the Bloodâ€“Brain Barrier. Angewandte Chemie - International Edition, 2015, 54, 3967-3972.	7.2	96
16	Triggering antitumoural drug release and gene expression by magnetic hyperthermia. Advanced Drug Delivery Reviews, 2019, 138, 326-343.	6.6	92
17	Stabilization of enzymes by multipoint immobilization of thiolated proteins on new epoxy-thiol supports. Biotechnology and Bioengineering, 2005, 90, 597-605.	1.7	90
18	Design, Preparation, and Evaluation of a Fixed-Orientation Antibody/Gold-Nanoparticle Conjugate as an Immunosensing Label. ACS Applied Materials & Interfaces, 2013, 5, 10753-10759.	4.0	89

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19	DNA as a Molecular Local Thermal Probe for the Analysis of Magnetic Hyperthermia. Angewandte Chemie - International Edition, 2013, 52, 11526-11529.	7.2	89
20	Novel Bifunctional Epoxy/Thiol-Reactive Support to Immobilize Thiol Containing Proteins by the Epoxy Chemistry. Biomacromolecules, 2003, 4, 1495-1501.	2.6	84
21	Synthesis and stealthing study of bare and PEGylated silica micro- and nanoparticles as potential drug-delivery vectors. Chemical Engineering Journal, 2008, 137, 45-53.	6.6	76
22	Strategies for the Biofunctionalization of Gold and Iron Oxide Nanoparticles. Langmuir, 2014, 30, 15057-15071.	1.6	70
23	Sterilization Matters: Consequences of Different Sterilization Techniques on Gold Nanoparticles. Small, 2010, 6, 89-95.	5.2	65
24	A promising road with challenges: where are gold nanoparticles in translational research?. Nanomedicine, 2014, 9, 2353-2370.	1.7	58
25	Glyoxyl agarose as a new chromatographic matrix. Enzyme and Microbial Technology, 2006, 38, 960-966.	1.6	56
26	Heterofunctional supports for the one-step purification, immobilization and stabilization of large multimeric enzymes: Amino-glyoxyl versus amino-epoxy supports. Process Biochemistry, 2010, 45, 1692-1698.	1.8	56
27	Promotion of multipoint covalent immobilization through different regions of genetically modified penicillin G acylase from E. coli. Process Biochemistry, 2010, 45, 390-398.	1.8	55
28	Covalent Immobilization of Antibodies on Finally Inert Support Surfaces through their Surface Regions Having the Highest Densities in Carboxyl Groups. Biomacromolecules, 2008, 9, 2230-2236.	2.6	50
29	Improving immunosensor performance through oriented immobilization of antibodies on carbon nanotube composite surfaces. Biosensors and Bioelectronics, 2013, 43, 274-280.	5.3	48
30	Enzyme activation by alternating magnetic field: Importance of the bioconjugation methodology. Journal of Colloid and Interface Science, 2019, 537, 615-628.	5.0	47
31	Chemical Modification of Protein Surfaces To Improve Their Reversible Enzyme Immobilization on Ionic Exchangers. Biomacromolecules, 2006, 7, 3052-3058.	2.6	46
32	Protein-Templated Biomimetic Silica Nanoparticles. Langmuir, 2015, 31, 3687-3695.	1.6	45
33	Plasmonic-driven thermal sensing: ultralow detection of cancer markers. Chemical Communications, 2013, 49, 3676.	2.2	44
34	Genetic Modification of the Penicillin G Acylase Surface To Improve Its Reversible Immobilization on Ionic Exchangers. Applied and Environmental Microbiology, 2007, 73, 312-319.	1.4	41
35	Glyoxyl-Disulfide Agarose: A Tailor-Made Support for Site-Directed Rigidification of Proteins. Biomacromolecules, 2011, 12, 1800-1809.	2.6	41
36	Mixed Ion Exchange Supports as Useful Ion Exchangers for Protein Purification:Â Purification of Penicillin G Acylase fromEscherichia coli. Biomacromolecules, 2007, 8, 703-707.	2.6	40

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37	Dual Role of Magnetic Nanoparticles as Intracellular Hotspots and Extracellular Matrix Disruptors Triggered by Magnetic Hyperthermia in 3D Cell Culture Models. ACS Applied Materials & Interfaces, 2018, 10, 44301-44313.	4.0	40
38	Improved Stabilization of Genetically Modified Penicillin G Acylase in the Presence of Organic Cosolvents by Co- Immobilization of the Enzyme with Polyethyleneimine. Advanced Synthesis and Catalysis, 2007, 349, 459-464.	2.1	38
39	Creating Biomimetic Surfaces through Covalent and Oriented Binding of Proteins. Langmuir, 2010, 26, 14707-14715.	1.6	37
40	Selective Magnetic Nanoheating: Combining Iron Oxide Nanoparticles for Multi-Hot-Spot Induction and Sequential Regulation. Nano Letters, 2021, 21, 7213-7220.	4.5	34
41	beta-Galactosidase from Kluyveromyces lactis immobilized on to thiolsulfinate/thiolsulfonate supports for lactose hydrolysis in milk and dairy by-products.. Biotechnology Letters, 1998, 12, 143-148.	0.5	32
42	Spatially-Resolved EELS Analysis of Antibody Distribution on Biofunctionalized Magnetic Nanoparticles. ACS Nano, 2013, 7, 4006-4013.	7.3	32
43	Tailor-made design of penicillin G acylase surface enables its site-directed immobilization and stabilization onto commercial mono-functional epoxy supports. Process Biochemistry, 2012, 47, 2538-2541.	1.8	26
44	Tackling reproducibility in microcantilever biosensors: a statistical approach for sensitive and specific end-point detection of immunoreactions. Analyst, The, 2013, 138, 863-872.	1.7	25
45	Oriented Covalent Immobilization of Antibodies on Physically Inert and Hydrophilic Support Surfaces through Their Glycosidic Chains. Biomacromolecules, 2008, 9, 719-723.	2.6	24
46	Gold nanocluster fluorescence as an indicator for optical enzymatic nanobiosensors: choline and acetylcholine determination. Sensors and Actuators B: Chemical, 2018, 277, 261-270.	4.0	23
47	Tips for the Functionalization of Nanoparticles with Antibodies. Methods in Molecular Biology, 2013, 1051, 149-163.	0.4	20
48	Extracellular Biosynthesis of Silver Nanoparticles Using Fungi and Their Antibacterial Activity. Nano Biomedicine and Engineering, 2018, 10, .	0.3	20
49	Design of stable magnetic hybrid nanoparticles of Si-entrapped HRP. PLoS ONE, 2019, 14, e0214004.	1.1	19
50	Immobilization of antibodies through the surface regions having the highest density in lysine groups on finally inert support surfaces. Process Biochemistry, 2009, 44, 365-368.	1.8	16
51	Nanocarriers as Nanomedicines. Frontiers of Nanoscience, 2012, 4, 337-440.	0.3	14
52	In Situ Photopolymerization of Biomaterials by Thiolâ€yne Click Chemistry. Macromolecular Bioscience, 2011, 11, 1505-1514.	2.1	13
53	Solid-Phase Reducing Agents as Alternative for Reducing Disulfide Bonds in Proteins. Applied Biochemistry and Biotechnology, 2003, 110, 23-32.	1.4	12
54	Nanoparticle-Mediated Monitoring of Carbohydrateâ€“Lectin Interactions Using Transient Magnetic Birefringence. Analytical Chemistry, 2014, 86, 12159-12165.	3.2	12

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55	Immobilization of Enzymes on Monofunctional and Heterofunctional Epoxy-Activated Supports. Methods in Molecular Biology, 2013, 1051, 43-57.	0.4	12
56	Stabilization of b-Glucuronidase by Immobilization in Magnetic-Silica Hybrid Supports. Catalysts, 2020, 10, 669.	1.6	11
57	Asymmetric hydrolysis of dimethyl phenylmalonate by immobilized penicillin G acylase from E. coli. Enzyme and Microbial Technology, 2007, 40, 997-1000.	1.6	9
58	Transient magnetic birefringence for determining magnetic nanoparticle diameters in dense, highly light scattering media. Nanotechnology, 2012, 23, 155501.	1.3	9
59	Glucose oxidase immobilized on magnetic nanoparticles: Nanobiosensors for fluorescent glucose monitoring. Mikrochimica Acta, 2017, 184, 1325-1333.	2.5	9
60	Specific peptides as alternative to antibody ligands for biomagnetic separation of Clostridium tyrobutyricum spores. Analytical and Bioanalytical Chemistry, 2012, 402, 3219-3226.	1.9	8
61	Use of polyvalent cations to improve the adsorption strength between adsorbed enzymes and supports coated with dextran sulfate. Enzyme and Microbial Technology, 2006, 39, 332-336.	1.6	6
62	Cell adhesion on surface patterns generated by the photocrosslinking of hyperbranched polyesters with a trisdiazonium salt. Reactive and Functional Polymers, 2013, 73, 499-507.	2.0	5
63	Surface engineered magnetic nanoparticles for specific immunotargeting of cadherin expressing cells. Journal Physics D: Applied Physics, 2016, 49, 054003.	1.3	5
64	Rescuing compound bioactivity in a secondary cell-based screening by using γ-cyclodextrin as a molecular carrier. International Journal of Nanomedicine, 2015, 10, 2249.	3.3	4
65	Photocrosslinking, micropatterning and cell adhesion studies of sodium hyaluronate with a trisdiazonium salt. Carbohydrate Polymers, 2012, 90, 419-430.	5.1	3
66	A Lectin Purified from Blood Red Bracket Mushroom, Pycnoporus sanguineus (Agaricomycetidae), Mycelium Displayed Affinity Toward Bovine Transferrin. International Journal of Medicinal Mushrooms, 2016, 18, 67-74.	0.9	3
67	Introduction of thiol-reactive structures on to soluble and insoluble proteins. Biotechnology and Applied Biochemistry, 2000, 31, 231.	1.4	1