Beatriz Pelaz

List of Publications by Year in Descending Order

93 papers	5,718 citations	34 h-index	75 g-index
99 ext. papers	6,499 ext. citations	8.9 avg, IF	5.47 L-index

#	Paper	IF	Citations
93	Sonosensitive capsules for brain thrombolysis increase ischemic damage in a stroke model.. *Journal of Nanobiotechnology*, **2022**, 20, 46	9.4	1
92	Colloidal stability of polymer coated zwitterionic Au nanoparticles in biological media. *Inorganica Chimica Acta*, **2022**, 534, 120820	2.7	0
91	Pathways Related to NLRP3 Inflammasome Activation Induced by Gold Nanorods. *International Journal of Molecular Sciences*, **2022**, 23, 5763	6.3	0
90	Plasmonic-Assisted Thermocyclizations in Living Cells Using Metal-Organic Framework Based Nanoreactors. *ACS Nano*, **2021**, 15, 16924-16933	16.7	1
89	In depth characterisation of the biomolecular coronas of polymer coated inorganic nanoparticles with differential centrifugal sedimentation. *Scientific Reports*, **2021**, 11, 6443	4.9	5
88	REAP: revealing drug tolerant persister cells in cancer using contrast enhanced optical coherence and photoacoustic tomography. *JPhys Photonics*, **2021**, 3, 021001	2.5	1
87	New Approaches in Nanomedicine for Ischemic Stroke. *Pharmaceutics*, **2021**, 13,	6.4	7
86	Aerogelation of Polymer-Coated Photoluminescent, Plasmonic, and Magnetic Nanoparticles for Biosensing Applications. *ACS Applied Nano Materials*, **2021**, 4, 6678-6688	5.6	4
85	Hyperspectral-enhanced dark field analysis of individual and collective photo-responsive gold-copper sulfide nanoparticles. *Nanoscale*, **2021**, 13, 13256-13272	7.7	4
84	Monodisperse superparamagnetic nanoparticles separation adsorbents for high-yield removal of arsenic and/or mercury metals in aqueous media. *Journal of Molecular Liquids*, **2021**, 335, 116485	6	0
83	808 nm-activable core@multishell upconverting nanoparticles with enhanced stability for efficient photodynamic therapy. *Journal of Nanobiotechnology*, **2020**, 18, 85	9.4	13
82	Core-Shell Palladium/MOF Platforms as Diffusion-Controlled Nanoreactors in Living Cells and Tissue Models. *Cell Reports Physical Science*, **2020**, 1, 100076	6.1	16
81	Synthesis, Characterization, and Evaluation of Superparamagnetic Doped Ferrites as Potential Therapeutic Nanotools. *Chemistry of Materials*, **2020**, 32, 2220-2231	9.6	25
80	Nanoparticle behavior and stability in biological environments **2020**, 5-18		3
79	Plasmonic Cell-Derived Nanocomposites for Light-Controlled Cargo Release inside Living Cells. *Advanced Biology*, **2020**, 4, e1900260	3.5	4
78	Photothermal effects on protein adsorption dynamics of PEGylated gold nanorods. *Applied Materials Today*, **2019**, 15, 599-604	6.6	15
77	Aqueous stable luminescent perovskite-polymer composites. *Applied Materials Today*, **2019**, 15, 562-569	6.6	9

76	Aqueous Stable Gold Nanostar/ZIF-8 Nanocomposites for Light-Triggered Release of Active Cargo Inside Living Cells. *Angewandte Chemie - International Edition*, **2019**, 58, 7078-7082	16.4	58
75	Aqueous Stable Gold Nanostar/ZIF-8 Nanocomposites for Light-Triggered Release of Active Cargo Inside Living Cells. *Angewandte Chemie*, **2019**, 131, 7152-7156	3.6	9
74	Investigating Possible Enzymatic Degradation on Polymer Shells around Inorganic Nanoparticles. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	12
73	In vivo ultrasound-activated delivery of recombinant tissue plasminogen activator from the cavity of sub-micrometric capsules. *Journal of Controlled Release*, **2019**, 308, 162-171	11.7	10
72	Tracking stem cells and macrophages with gold and iron oxide nanoparticles The choice of the best suited particles. *Applied Materials Today*, **2019**, 15, 267-279	6.6	26
71	Nanoparticles engineered to bind cellular motors for efficient delivery. *Journal of Nanobiotechnology*, **2018**, 16, 33	9.4	12
70	Colloidal bioplasmonics. *Nano Today*, **2018**, 20, 58-73	17.9	22
69	Antireflection self-reference method based on ultrathin metallic nanofilms for improving terahertz reflection spectroscopy. *Optics Express*, **2018**, 26, 19470-19478	3.3	5
68	Magnetic Nanoparticles for Cancer Therapy and Bioimaging. *Nanomedicine and Nanotoxicology*, **2018**, 239-279	0.3	7
67	Aqueous Synthesis of Copper(II)-Imidazolate Nanoparticles. *Inorganic Chemistry*, **2018**, 57, 12056-12065	5.1	2
66	How Entanglement of Different Physicochemical Properties Complicates the Prediction of in Vitro and in Vivo Interactions of Gold Nanoparticles. *ACS Nano*, **2018**, 12, 10104-10113	16.7	81
65	Dual Enzymatic Reaction-Assisted Gemcitabine Delivery Systems for Programmed Pancreatic Cancer Therapy. *ACS Nano*, **2017**, 11, 1281-1291	16.7	129
64	Dissecting common and divergent molecular pathways elicited by CdSe/ZnS quantum dots in freshwater and marine sentinel invertebrates. *Nanotoxicology*, **2017**, 11, 289-303	5.3	21
63	Advances toward More Efficient Targeted Delivery of Nanoparticles in Vivo: Understanding Interactions between Nanoparticles and Cells. *ACS Nano*, **2017**, 11, 2397-2402	16.7	78
62	Enhanced Terahertz Radiation Generation of Photoconductive Antennas Based on Manganese Ferrite Nanoparticles. *Scientific Reports*, **2017**, 7, 46261	4.9	6
61	Introducing Students to Surface Modification and Phase Transfer of Nanoparticles with a Laboratory Experiment. *Journal of Chemical Education*, **2017**, 94, 769-774	2.4	8
60	The role of intracellular trafficking of CdSe/ZnS QDs on their consequent toxicity profile. *Journal of Nanobiotechnology*, **2017**, 15, 45	9.4	18
59	Real-time, label-free monitoring of cell viability based on cell adhesion measurements with an atomic force microscope. *Journal of Nanobiotechnology*, **2017**, 15, 23	9.4	7

58	Colloidal Gold Nanoparticles Induce Changes in Cellular and Subcellular Morphology. *ACS Nano*, **2017**, 11, 7807-7820	16.7	60
57	Optimizing conditions for labeling of mesenchymal stromal cells (MSCs) with gold nanoparticles: a prerequisite for in vivo tracking of MSCs. *Journal of Nanobiotechnology*, **2017**, 15, 24	9.4	26
56	Influence of Size and Shape on the Anatomical Distribution of Endotoxin-Free Gold Nanoparticles. *ACS Nano*, **2017**, 11, 5519-5529	16.7	99
55	Choose your cell model wisely: The in vitro nanoneurotoxicity of differentially coated iron oxide nanoparticles for neural cell labeling. *Acta Biomaterialia*, **2017**, 55, 204-213	10.8	12
54	Diverse Applications of Nanomedicine. *ACS Nano*, **2017**, 11, 2313-2381	16.7	714
53	Polymer-coated nanoparticles: Carrier platforms for hydrophobic water- and air-sensitive metallo-organic compounds. *Pharmacological Research*, **2017**, 117, 261-266	10.2	12
52	Selected Standard Protocols for the Synthesis, Phase Transfer, and Characterization of Inorganic Colloidal Nanoparticles. *Chemistry of Materials*, **2017**, 29, 399-461	9.6	176
51	Multiparametric analysis of anti-proliferative and apoptotic effects of gold nanoprisms on mouse and human primary and transformed cells, biodistribution and toxicity in vivo. *Particle and Fibre Toxicology*, **2017**, 14, 41	8.4	16
50	Synthesis and Surface Engineering of Gold Nanoparticles, and Their Potential Applications in Bionanotechnology **2017**,		
49	Enhanced All-Optical Modulation of Terahertz Waves on the Basis of Manganese Ferrite Nanoparticles. *Journal of Physical Chemistry C*, **2017**, 121, 21634-21640	3.8	13
48	Direct protein quantification in complex sample solutions by surface-engineered nanorod probes. *Scientific Reports*, **2017**, 7, 4752	4.9	8
47	Evaluation of quantum dot cytotoxicity: interpretation of nanoparticle concentrations versus intracellular nanoparticle numbers. *Nanotoxicology*, **2016**, 10, 1318-28	5.3	26
46	The impact of species and cell type on the nanosafety profile of iron oxide nanoparticles in neural cells. *Journal of Nanobiotechnology*, **2016**, 14, 69	9.4	35
45	Quantitative uptake of colloidal particles by cell cultures. *Science of the Total Environment*, **2016**, 568, 819-828	10.2	33
44	Gold-Based Nanomaterials for Applications in Nanomedicine. *Topics in Current Chemistry*, **2016**, 370, 169-202		43
43	Homogeneous Biosensing Based on Magnetic Particle Labels. *Sensors*, **2016**, 16,	3.8	65
42	Nanoparticle dosage-a nontrivial task of utmost importance for quantitative nanosafety research. *Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology*, **2016**, 8, 479-92	9.2	20
41	Inhibition of the cancer-associated TASK 3 channels by magnetically induced thermal release of Tetrandrine from a polymeric drug carrier. *Journal of Controlled Release*, **2016**, 237, 50-60	11.7	25

40	Basic Physicochemical Properties of Polyethylene Glycol Coated Gold Nanoparticles that Determine Their Interaction with Cells. *Angewandte Chemie - International Edition*, **2016**, 55, 5483-7	16.4	103
39	Basic Physicochemical Properties of Polyethylene Glycol Coated Gold Nanoparticles that Determine Their Interaction with Cells. *Angewandte Chemie*, **2016**, 128, 5573-5577	3.6	7
38	Tumour homing and therapeutic effect of colloidal nanoparticles depend on the number of attached antibodies. *Nature Communications*, **2016**, 7, 13818	17.4	93
37	Homogeneous Protein Analysis by Magnetic Core-Shell Nanorod Probes. *ACS Applied Materials & Interfaces*, **2016**, 8, 8893-9	9.5	15
36	Sterilization Case Study 1: Effects of Different Sterilization Techniques on Gold Nanoparticles. *Frontiers in Nanobiomedical Research*, **2016**, 77-92		
35	Highly active antibody-modified magnetic polyelectrolyte capsules. *Journal of Colloid and Interface Science*, **2016**, 474, 1-8	9.3	18
34	Phase Transfer and Polymer Coating Methods toward Improving the Stability of Metallic Nanoparticles for Biological Applications. *Chemistry of Materials*, **2015**, 27, 990-997	9.6	87
33	Surface Functionalization of Nanoparticles with Polyethylene Glycol: Effects on Protein Adsorption and Cellular Uptake. *ACS Nano*, **2015**, 9, 6996-7008	16.7	587
32	Characterization of gold nanoparticles with different hydrophilic coatings via capillary electrophoresis and Taylor dispersion analysis. Part I: determination of the zeta potential employing a modified analytic approximation. *Journal of Colloid and Interface Science*, **2015**, 450, 288-300	9.3	51
31	Model Driven Optimization of Magnetic Anisotropy of Exchange-coupled Core-Shell Ferrite Nanoparticles for Maximal Hysteretic Loss. *Chemistry of Materials*, **2015**, 27, 7380-7387	9.6	76
30	Characterization of hydrophilic coated gold nanoparticles via capillary electrophoresis and Taylor dispersion analysis. Part II: Determination of the hydrodynamic radius distribution - Comparison with asymmetric flow field-flow fractionation. *Journal of Colloid and Interface Science*, **2015**, 457, 131-40	9.3	33
29	Investigating the role of shape on the biological impact of gold nanoparticles in vitro. *Nanomedicine* , **2015**, 10, 2643-57	5.6	24
28	Charge and agglomeration dependent in vitro uptake and cytotoxicity of zinc oxide nanoparticles. *Journal of Inorganic Biochemistry*, **2015**, 153, 334-338	4.2	48
27	High-Content Imaging and Gene Expression Approaches To Unravel the Effect of Surface Functionality on Cellular Interactions of Silver Nanoparticles. *ACS Nano*, **2015**, 9, 10431-44	16.7	61
26	Particle-based optical sensing of intracellular ions at the example of calcium - what are the experimental pitfalls?. *Small*, **2015**, 11, 896-904	11	27
25	Dissecting the molecular mechanism of apoptosis during photothermal therapy using gold nanoprisms. *ACS Nano*, **2015**, 9, 52-61	16.7	260
24	Conjugation of Polymer-Coated Gold Nanoparticles with Antibodies-Synthesis and Characterization. *Nanomaterials*, **2015**, 5, 1297-1316	5.4	24
23	Comparison of the Uptake and Toxicity of Collagen- and Synthetic Polymer-Coated Gold Nanoparticles. *Nanomaterials*, **2015**, 5, 1418-1430	5.4	30

22	Optical biosensor technologies for molecular diagnostics at the point-of-care **2015**,		2
21	Protein corona formation around nanoparticles From the past to the future. *Materials Horizons*, **2014**, 1, 301-313	14.4	401
20	Interaction of stable colloidal nanoparticles with cellular membranes. *Biotechnology Advances*, **2014** , 32, 679-92	17.8	58
19	Metal ions in the context of nanoparticles toward biological applications. *Current Opinion in Chemical Engineering*, **2014**, 4, 88-96	5.4	27
18	In vitro interaction of colloidal nanoparticles with mammalian cells: What have we learned thus far?. *Beilstein Journal of Nanotechnology*, **2014**, 5, 1477-90	3	114
17	Fluorescence-based ion-sensing with colloidal particles. *Current Opinion in Pharmacology*, **2014**, 18, 98-103	5.1	8
16	The challenge to relate the physicochemical properties of colloidal nanoparticles to their cytotoxicity. *Accounts of Chemical Research*, **2013**, 46, 743-9	24.3	297
15	Design and characterization of functional nanoparticles for enhanced bio-performance. *Methods in Molecular Biology*, **2013**, 1051, 165-207	1.4	1
14	Nanoprisms: Gold Nanoprisms as Optoacoustic Signal Nanoamplifiers for In Vivo Bioimaging of Gastrointestinal Cancers (Small 1/2013). *Small*, **2013**, 9, 67-67	11	2
13	Plasmonic-driven thermal sensing: ultralow detection of cancer markers. *Chemical Communications*, **2013**, 49, 3676-8	5.8	41
12	CuTe nanocrystals: shape and size control, plasmonic properties, and use as SERS probes and photothermal agents. *Journal of the American Chemical Society*, **2013**, 135, 7098-101	16.4	342
11	Interfacing engineered nanoparticles with biological systems: anticipating adverse nano-bio interactions. *Small*, **2013**, 9, 1573-84	11	154
10	Gold nanoprisms as optoacoustic signal nanoamplifiers for in vivo bioimaging of gastrointestinal cancers. *Small*, **2013**, 9, 68-74	11	108
9	The state of nanoparticle-based nanoscience and biotechnology: progress, promises, and challenges. *ACS Nano*, **2012**, 6, 8468-83	16.7	188
8	Tailoring the synthesis and heating ability of gold nanoprisms for bioapplications. *Langmuir*, **2012**, 28, 8965-70	4	145
7	Hyperthermia Using Inorganic Nanoparticles. *Frontiers of Nanoscience*, **2012**, 309-335	0.7	5
6	Synthesis Applications of Gold Nanoparticles. *Frontiers of Nanoscience*, **2012**, 3-33	0.7	7
5	Functionalized Fe@Au superparamagnetic nanoparticles: in vitro bioactivity. *Nanotechnology*, **2012**, 23, 315102	3.4	40

4	Engineering biofunctional magnetic nanoparticles for biotechnological applications. *Nanoscale*, **2010**, 2, 1746-55	7.7	90
3	The effect of static magnetic fields and tat peptides on cellular and nuclear uptake of magnetic nanoparticles. *Biomaterials*, **2010**, 31, 4392-400	15.6	58
2	Sterilization matters: consequences of different sterilization techniques on gold nanoparticles. *Small*, **2010**, 6, 89-95	11	56
1	Asymmetric Negishi reaction for sterically hindered couplings: synthesis of chiral binaphthalenes. *Tetrahedron: Asymmetry*, **2006**, 17, 2593-2595		27