

# Beatriz Pelaz

## List of Publications by Year in descending order

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95  
papers

7,181  
citations

116194

36  
h-index

64407

83  
g-index

99  
all docs

99  
docs citations

99  
times ranked

14416  
citing authors

#	ARTICLE	IF	CITATIONS
1	Diverse Applications of Nanomedicine. ACS Nano, 2017, 11, 2313-2381.	7.3	976
2	Surface Functionalization of Nanoparticles with Polyethylene Glycol: Effects on Protein Adsorption and Cellular Uptake. ACS Nano, 2015, 9, 6996-7008.	7.3	717
3	Protein corona formation around nanoparticles “ from the past to the future. Materials Horizons, 2014, 1, 301-313.	6.4	464
4	CuTe Nanocrystals: Shape and Size Control, Plasmonic Properties, and Use as SERS Probes and Photothermal Agents. Journal of the American Chemical Society, 2013, 135, 7098-7101.	6.6	403
5	Dissecting the Molecular Mechanism of Apoptosis during Photothermal Therapy Using Gold Nanoprisms. ACS Nano, 2015, 9, 52-61.	7.3	336
6	The Challenge To Relate the Physicochemical Properties of Colloidal Nanoparticles to Their Cytotoxicity. Accounts of Chemical Research, 2013, 46, 743-749.	7.6	330
7	Selected Standard Protocols for the Synthesis, Phase Transfer, and Characterization of Inorganic Colloidal Nanoparticles. Chemistry of Materials, 2017, 29, 399-461.	3.2	233
8	The State of Nanoparticle-Based Nanoscience and Biotechnology: Progress, Promises, and Challenges. ACS Nano, 2012, 6, 8468-8483.	7.3	211
9	Interfacing Engineered Nanoparticles with Biological Systems: Anticipating Adverse Nano“Bio Interactions. Small, 2013, 9, 1573-1584.	5.2	176
10	Tailoring the Synthesis and Heating Ability of Gold Nanoprisms for Bioapplications. Langmuir, 2012, 28, 8965-8970.	1.6	167
11	Dual Enzymatic Reaction-Assisted Gemcitabine Delivery Systems for Programmed Pancreatic Cancer Therapy. ACS Nano, 2017, 11, 1281-1291.	7.3	160
12	Influence of Size and Shape on the Anatomical Distribution of Endotoxin-Free Gold Nanoparticles. ACS Nano, 2017, 11, 5519-5529.	7.3	131
13	In vitro interaction of colloidal nanoparticles with mammalian cells: What have we learned thus far?. Beilstein Journal of Nanotechnology, 2014, 5, 1477-1490.	1.5	130
14	Gold Nanoprisms as Optoacoustic Signal Nanoamplifiers for In Vivo Bioimaging of Gastrointestinal Cancers. Small, 2013, 9, 68-74.	5.2	121
15	Phase Transfer and Polymer Coating Methods toward Improving the Stability of Metallic Nanoparticles for Biological Applications. Chemistry of Materials, 2015, 27, 990-997.	3.2	116
16	Basic Physicochemical Properties of Polyethylene Glycol Coated Gold Nanoparticles that Determine Their Interaction with Cells. Angewandte Chemie - International Edition, 2016, 55, 5483-5487.	7.2	115
17	Tumour homing and therapeutic effect of colloidal nanoparticles depend on the number of attached antibodies. Nature Communications, 2016, 7, 13818.	5.8	115
18	How Entanglement of Different Physicochemical Properties Complicates the Prediction of <i>in Vitro</i> and <i>in Vivo</i> Interactions of Gold Nanoparticles. ACS Nano, 2018, 12, 10104-10113.	7.3	113

#	ARTICLE	IF	CITATIONS
19	Aqueous Stable Gold Nanostar/ZIF@8 Nanocomposites for Light-Triggered Release of Active Cargo Inside Living Cells. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 7078-7082.	7.2	103
20	Advances toward More Efficient Targeted Delivery of Nanoparticles <i>in Vivo</i> : Understanding Interactions between Nanoparticles and Cells. <i>ACS Nano</i> , 2017, 11, 2397-2402.	7.3	98
21	Engineering biofunctional magnetic nanoparticles for biotechnological applications. <i>Nanoscale</i> , 2010, 2, 1746.	2.8	96
22	Model Driven Optimization of Magnetic Anisotropy of Exchange-Coupled Core-Shell Ferrite Nanoparticles for Maximal Hysteretic Loss. <i>Chemistry of Materials</i> , 2015, 27, 7380-7387.	3.2	93
23	Colloidal Gold Nanoparticles Induce Changes in Cellular and Subcellular Morphology. <i>ACS Nano</i> , 2017, 11, 7807-7820.	7.3	88
24	Homogeneous Biosensing Based on Magnetic Particle Labels. <i>Sensors</i> , 2016, 16, 828.	2.1	75
25	High-Content Imaging and Gene Expression Approaches To Unravel the Effect of Surface Functionality on Cellular Interactions of Silver Nanoparticles. <i>ACS Nano</i> , 2015, 9, 10431-10444.	7.3	70
26	The effect of static magnetic fields and tat peptides on cellular and nuclear uptake of magnetic nanoparticles. <i>Biomaterials</i> , 2010, 31, 4392-4400.	5.7	68
27	Sterilization Matters: Consequences of Different Sterilization Techniques on Gold Nanoparticles. <i>Small</i> , 2010, 6, 89-95.	5.2	65
28	Interaction of stable colloidal nanoparticles with cellular membranes. <i>Biotechnology Advances</i> , 2014, 32, 679-692.	6.0	62
29	Charge and agglomeration dependent <i>in vitro</i> uptake and cytotoxicity of zinc oxide nanoparticles. <i>Journal of Inorganic Biochemistry</i> , 2015, 153, 334-338.	1.5	60
30	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. <i>Journal of Colloid and Interface Science</i> , 2015, 450, 288-300.	5.0	57
31	Gold-Based Nanomaterials for Applications in Nanomedicine. <i>Topics in Current Chemistry</i> , 2016, 370, 169-202.	4.0	56
32	Synthesis, Characterization, and Evaluation of Superparamagnetic Doped Ferrites as Potential Therapeutic Nanotools. <i>Chemistry of Materials</i> , 2020, 32, 2220-2231.	3.2	50
33	Functionalized Fe <sub>3</sub> O <sub>4</sub> @Au superparamagnetic nanoparticles: <i>in vitro</i> bioactivity. <i>Nanotechnology</i> , 2012, 23, 315102.	1.3	44
34	Plasmonic-driven thermal sensing: ultralow detection of cancer markers. <i>Chemical Communications</i> , 2013, 49, 3676.	2.2	44
35	The impact of species and cell type on the nanosafety profile of iron oxide nanoparticles in neural cells. <i>Journal of Nanobiotechnology</i> , 2016, 14, 69.	4.2	41
36	Asymmetric Negishi reaction for sterically hindered couplings: synthesis of chiral binaphthalenes. <i>Tetrahedron: Asymmetry</i> , 2006, 17, 2593-2595.	1.8	39

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37	Tracking stem cells and macrophages with gold and iron oxide nanoparticles – The choice of the best suited particles. <i>Applied Materials Today</i> , 2019, 15, 267-279.	2.3	39
38	Comparison of the in Vitro Uptake and Toxicity of Collagen- and Synthetic Polymer-Coated Gold Nanoparticles. <i>Nanomaterials</i> , 2015, 5, 1418-1430.	1.9	35
39	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. <i>Journal of Colloid and Interface Science</i> , 2015, 457, 131-140.	5.0	35
40	Quantitative uptake of colloidal particles by cell cultures. <i>Science of the Total Environment</i> , 2016, 568, 819-828.	3.9	35
41	Core-Shell Palladium/MOF Platforms as Diffusion-Controlled Nanoreactors in Living Cells and Tissue Models. <i>Cell Reports Physical Science</i> , 2020, 1, 100076.	2.8	35
42	Investigating the role of shape on the biological impact of gold nanoparticles <i>in vitro</i> . <i>Nanomedicine</i> , 2015, 10, 2643-2657.	1.7	33
43	Evaluation of quantum dot cytotoxicity: interpretation of nanoparticle concentrations versus intracellular nanoparticle numbers. <i>Nanotoxicology</i> , 2016, 10, 1318-1328.	1.6	33
44	The role of intracellular trafficking of CdSe/ZnS QDs on their consequent toxicity profile. <i>Journal of Nanobiotechnology</i> , 2017, 15, 45.	4.2	31
45	Optimizing conditions for labeling of mesenchymal stromal cells (MSCs) with gold nanoparticles: a prerequisite for in vivo tracking of MSCs. <i>Journal of Nanobiotechnology</i> , 2017, 15, 24.	4.2	31
46	Conjugation of Polymer-Coated Gold Nanoparticles with Antibodies – Synthesis and Characterization. <i>Nanomaterials</i> , 2015, 5, 1297-1316.	1.9	29
47	Inhibition of the cancer-associated TASK 3 channels by magnetically induced thermal release of Tetrandrine from a polymeric drug carrier. <i>Journal of Controlled Release</i> , 2016, 237, 50-60.	4.8	29
48	Metal ions in the context of nanoparticles toward biological applications. <i>Current Opinion in Chemical Engineering</i> , 2014, 4, 88-96.	3.8	28
49	Particle-Based Optical Sensing of Intracellular Ions at the Example of Calcium - What Are the Experimental Pitfalls?. <i>Small</i> , 2015, 11, 896-904.	5.2	27
50	Dissecting common and divergent molecular pathways elicited by CdSe/ZnS quantum dots in freshwater and marine sentinel invertebrates. <i>Nanotoxicology</i> , 2017, 11, 289-303.	1.6	27
51	Colloidal bioplasmonics. <i>Nano Today</i> , 2018, 20, 58-73.	6.2	25
52	Photothermal effects on protein adsorption dynamics of PEGylated gold nanorods. <i>Applied Materials Today</i> , 2019, 15, 599-604.	2.3	23
53	Nanoparticle dosage – a nontrivial task of utmost importance for quantitative nanosafety research. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2016, 8, 479-492.	3.3	22
54	Highly active antibody-modified magnetic polyelectrolyte capsules. <i>Journal of Colloid and Interface Science</i> , 2016, 474, 1-8.	5.0	22

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55	808Ånm-activable core@multishell upconverting nanoparticles with enhanced stability for efficient photodynamic therapy. <i>Journal of Nanobiotechnology</i> , 2020, 18, 85.	4.2	22
56	In vivo ultrasound-activated delivery of recombinant tissue plasminogen activator from the cavity of sub-micrometric capsules. <i>Journal of Controlled Release</i> , 2019, 308, 162-171.	4.8	21
57	Plasmonic-Assisted Thermocyclizations in Living Cells Using Metal-Organic Framework Based Nanoreactors. <i>ACS Nano</i> , 2021, 15, 16924-16933.	7.3	20
58	New Approaches in Nanomedicine for Ischemic Stroke. <i>Pharmaceutics</i> , 2021, 13, 757.	2.0	19
59	Homogeneous Protein Analysis by Magnetic Core-Shell Nanorod Probes. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 8893-8899.	4.0	18
60	Real-time, label-free monitoring of cell viability based on cell adhesion measurements with an atomic force microscope. <i>Journal of Nanobiotechnology</i> , 2017, 15, 23.	4.2	17
61	Polymer-coated nanoparticles: Carrier platforms for hydrophobic water- and air-sensitive metallo-organic compounds. <i>Pharmacological Research</i> , 2017, 117, 261-266.	3.1	17
62	Enhanced All-Optical Modulation of Terahertz Waves on the Basis of Manganese Ferrite Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21634-21640.	1.5	17
63	Multiparametric analysis of anti-proliferative and apoptotic effects of gold nanoprisms on mouse and human primary and transformed cells, biodistribution and toxicity in vivo. <i>Particle and Fibre Toxicology</i> , 2017, 14, 41.	2.8	17
64	Investigating Possible Enzymatic Degradation on Polymer Shells around Inorganic Nanoparticles. <i>International Journal of Molecular Sciences</i> , 2019, 20, 935.	1.8	17
65	Hyperspectral-enhanced dark field analysis of individual and collective photo-responsive gold-copper sulfide nanoparticles. <i>Nanoscale</i> , 2021, 13, 13256-13272.	2.8	17
66	Aqueous Stable Gold Nanostar/ZIF-8 Nanocomposites for Light-Triggered Release of Active Cargo Inside Living Cells. <i>Angewandte Chemie</i> , 2019, 131, 7152-7156.	1.6	15
67	Nanoparticles engineered to bind cellular motors for efficient delivery. <i>Journal of Nanobiotechnology</i> , 2018, 16, 33.	4.2	14
68	In depth characterisation of the biomolecular coronas of polymer coated inorganic nanoparticles with differential centrifugal sedimentation. <i>Scientific Reports</i> , 2021, 11, 6443.	1.6	14
69	Choose your cell model wisely: The in vitro nanoneurotoxicity of differentially coated iron oxide nanoparticles for neural cell labeling. <i>Acta Biomaterialia</i> , 2017, 55, 204-213.	4.1	13
70	Aqueous stable luminescent perovskite-polymer composites. <i>Applied Materials Today</i> , 2019, 15, 562-569.	2.3	13
71	Aerogelation of Polymer-Coated Photoluminescent, Plasmonic, and Magnetic Nanoparticles for Biosensing Applications. <i>ACS Applied Nano Materials</i> , 2021, 4, 6678-6688.	2.4	13
72	Basic Physicochemical Properties of Polyethylene Glycol Coated Gold Nanoparticles that Determine Their Interaction with Cells. <i>Angewandte Chemie</i> , 2016, 128, 5573-5577.	1.6	11

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73	Direct protein quantification in complex sample solutions by surface-engineered nanorod probes. <i>Scientific Reports</i> , 2017, 7, 4752.	1.6	11
74	Plasmonic Cell-Derived Nanocomposites for Light-Controlled Cargo Release inside Living Cells. <i>Advanced Biology</i> , 2020, 4, e1900260.	3.0	11
75	Enhanced Terahertz Radiation Generation of Photoconductive Antennas Based on Manganese Ferrite Nanoparticles. <i>Scientific Reports</i> , 2017, 7, 46261.	1.6	9
76	Introducing Students to Surface Modification and Phase Transfer of Nanoparticles with a Laboratory Experiment. <i>Journal of Chemical Education</i> , 2017, 94, 769-774.	1.1	9
77	Magnetic Nanoparticles for Cancer Therapy and Bioimaging. <i>Nanomedicine and Nanotoxicology</i> , 2018, , 239-279.	0.1	9
78	Fluorescence-based ion-sensing with colloidal particles. <i>Current Opinion in Pharmacology</i> , 2014, 18, 98-103.	1.7	8
79	Sonosensitive capsules for brain thrombolysis increase ischemic damage in a stroke model. <i>Journal of Nanobiotechnology</i> , 2022, 20, 46.	4.2	8
80	Synthesis Applications of Gold Nanoparticles. <i>Frontiers of Nanoscience</i> , 2012, , 3-33.	0.3	7
81	Antireflection self-reference method based on ultrathin metallic nanofilms for improving terahertz reflection spectroscopy. <i>Optics Express</i> , 2018, 26, 19470.	1.7	7
82	Nanoparticle behavior and stability in biological environments. , 2020, , 5-18.		7
83	Monodisperse superparamagnetic nanoparticles separation adsorbents for high-yield removal of arsenic and/or mercury metals in aqueous media. <i>Journal of Molecular Liquids</i> , 2021, 335, 116485.	2.3	7
84	Aqueous Synthesis of Copper(II)-Imidazolate Nanoparticles. <i>Inorganic Chemistry</i> , 2018, 57, 12056-12065.	1.9	6
85	Colloidal stability of polymer coated zwitterionic Au nanoparticles in biological media. <i>Inorganica Chimica Acta</i> , 2022, 534, 120820.	1.2	6
86	Hyperthermia Using Inorganic Nanoparticles. <i>Frontiers of Nanoscience</i> , 2012, , 309-335.	0.3	5
87	High-yield halide-assisted synthesis of metal-organic framework UiO-based nanocarriers. <i>Nanoscale</i> , 2022, 14, 6789-6801.	2.8	4
88	Optical biosensor technologies for molecular diagnostics at the point-of-care. , 2015, , .		3
89	Nanoprisms: Gold Nanoprisms as Optoacoustic Signal Nanoamplifiers for In Vivo Bioimaging of Gastrointestinal Cancers (Small 1/2013). <i>Small</i> , 2013, 9, 67-67.	5.2	2
90	Design and Characterization of Functional Nanoparticles for Enhanced Bio-performance. <i>Methods in Molecular Biology</i> , 2013, 1051, 165-207.	0.4	1

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91	REAP: revealing drug tolerant persister cells in cancer using contrast enhanced optical coherence and photoacoustic tomography. JPhys Photonics, 2021, 3, 021001.	2.2	1
92	Pathways Related to NLRP3 Inflammasome Activation Induced by Gold Nanorods. International Journal of Molecular Sciences, 2022, 23, 5763.	1.8	1
93	Integrated optical waveguide and nanoparticle based label-free molecular biosensing concepts. , 2014, , .		0
94	Sterilization Case Study 1: Effects of Different Sterilization Techniques on Gold Nanoparticles. Frontiers in Nanobiomedical Research, 2016, , 77-92.	0.1	0
95	Synthesis and Surface Engineering of Gold Nanoparticles, and Their Potential Applications in Bionanotechnology. , 2017, , .		0