

# Laura Rodriguez-Lorenzo

## List of Publications by Year in descending order

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69  
papers

5,226  
citations

147801

31  
h-index

85541

71  
g-index

73  
all docs

73  
docs citations

73  
times ranked

9250  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoparticle colloidal stability in cell culture media and impact on cellular interactions. <i>Chemical Society Reviews</i> , 2015, 44, 6287-6305.	38.1	771
2	Zeptomol Detection Through Controlled Ultrasensitive Surface-Enhanced Raman Scattering. <i>Journal of the American Chemical Society</i> , 2009, 131, 4616-4618.	13.7	520
3	Form Follows Function: Nanoparticle Shape and Its Implications for Nanomedicine. <i>Chemical Reviews</i> , 2017, 117, 11476-11521.	47.7	464
4	Tuning Size and Sensing Properties in Colloidal Gold Nanostars. <i>Langmuir</i> , 2010, 26, 14943-14950.	3.5	447
5	Plasmonic nanosensors with inverse sensitivity by means of enzyme-guided crystal growth. <i>Nature Materials</i> , 2012, 11, 604-607.	27.5	395
6	Surface Enhanced Raman Scattering Using Star-Shaped Gold Colloidal Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2010, 114, 7336-7340.	3.1	224
7	Surface-enhanced Raman scattering biomedical applications of plasmonic colloidal particles. <i>Journal of the Royal Society Interface</i> , 2010, 7, S435-50.	3.4	180
8	Design of SERS-Encoded, Submicron, Hollow Particles Through Confined Growth of Encapsulated Metal Nanoparticles. <i>Journal of the American Chemical Society</i> , 2009, 131, 2699-2705.	13.7	144
9	Multiplex optical sensing with surface-enhanced Raman scattering: A critical review. <i>Analytica Chimica Acta</i> , 2012, 745, 10-23.	5.4	130
10	Intracellular mapping with SERS-encoded gold nanostars. <i>Integrative Biology (United Kingdom)</i> , 2011, 3, 922.	1.3	127
11	Reshaping and LSPR tuning of Au nanostars in the presence of CTAB. <i>Journal of Materials Chemistry</i> , 2011, 21, 11544.	6.7	108
12	Label-free SERS detection of relevant bioanalytes on silver-coated carbon nanotubes: The case of cocaine. <i>Nanoscale</i> , 2009, 1, 153.	5.6	98
13	Translocation of gold nanoparticles across the lung epithelial tissue barrier: Combining in vitro and in silico methods to substitute in vivo experiments. <i>Particle and Fibre Toxicology</i> , 2015, 12, 18.	6.2	82
14	Uptake efficiency of surface modified gold nanoparticles does not correlate with functional changes and cytokine secretion in human dendritic cells in vitro. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2015, 11, 633-644.	3.3	78
15	Reversible assembly of metal nanoparticles induced by penicillamine. Dynamic formation of SERS hot spots. <i>Journal of Materials Chemistry</i> , 2011, 21, 16880.	6.7	77
16	Characterizing nanoparticles in complex biological media and physiological fluids with depolarized dynamic light scattering. <i>Nanoscale</i> , 2015, 7, 5991-5997.	5.6	75
17	Growth of Sharp Tips on Gold Nanowires Leads to Increased Surface-Enhanced Raman Scattering Activity. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 24-27.	4.6	74
18	Bifunctional Nanocomposites with Long-Term Stability as SERS Optical Accumulators for Ultrasensitive Analysis. <i>Journal of Physical Chemistry C</i> , 2009, 113, 3373-3377.	3.1	68

#	ARTICLE	IF	CITATIONS
19	Nanoparticle administration method in cell culture alters particle-cell interaction. Scientific Reports, 2019, 9, 900.	3.3	65
20	Quantifying nanoparticle cellular uptake: which method is best?. Nanomedicine, 2017, 12, 1095-1099.	3.3	61
21	Quantification of nanoparticles at the single-cell level: an overview about state-of-the-art techniques and their limitations. Nanomedicine, 2014, 9, 1885-1900.	3.3	60
22	Recyclable magnetic covalent organic framework for the extraction of marine biotoxins. Nanoscale, 2019, 11, 6072-6079.	5.6	57
23	Aerosol Delivery of Functionalized Gold Nanoparticles Target and Activate Dendritic Cells in a 3D Lung Cellular Model. ACS Nano, 2017, 11, 375-383.	14.6	55
24	Fluorescence-Encoded Gold Nanoparticles: Library Design and Modulation of Cellular Uptake into Dendritic Cells. Small, 2014, 10, 1341-1350.	10.0	54
25	Cellulose Nanocrystals with Tethered Polymer Chains: Chemically Patchy versus Uniform Decoration. ACS Macro Letters, 2017, 6, 892-897.	4.8	47
26	Gold Nanostars for the Detection of Foodborne Pathogens via Surface-Enhanced Raman Scattering Combined with Microfluidics. ACS Applied Nano Materials, 2019, 2, 6081-6086.	5.0	47
27	Interaction of biomedical nanoparticles with the pulmonary immune system. Journal of Nanobiotechnology, 2017, 15, 6.	9.1	45
28	Pulmonary delivery of cationic gold nanoparticles boost antigen-specific CD4 + T Cell Proliferation. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 1815-1826.	3.3	42
29	Biodistribution of single and aggregated gold nanoparticles exposed to the human lung epithelial tissue barrier at the air-liquid interface. Particle and Fibre Toxicology, 2017, 14, 49.	6.2	38
30	Plasmonic nanoparticles and their characterization in physiological fluids. Colloids and Surfaces B: Biointerfaces, 2016, 137, 39-49.	5.0	35
31	In vitro dosimetry of agglomerates. Nanoscale, 2014, 6, 7325-7331.	5.6	33
32	Dynamic Depolarized Light Scattering of Small Round Plasmonic Nanoparticles: When Imperfection is Only Perfect. Journal of Physical Chemistry C, 2014, 118, 17968-17974.	3.1	33
33	Current <i>in vitro</i> approaches to assess nanoparticle interactions with lung cells. Nanomedicine, 2016, 11, 2457-2469.	3.3	31
34	Microporous Plasmonic Capsules as Stable Molecular Sieves for Direct SERS Quantification of Small Pollutants in Natural Waters. ChemNanoMat, 2019, 5, 46-50.	2.8	31
35	Nanoparticle Polydispersity Can Strongly Affect In Vitro Dose. Particle and Particle Systems Characterization, 2015, 32, 321-333.	2.3	30
36	A hydrofluoric acid-free method to dissolve and quantify silica nanoparticles in aqueous and solid matrices. Scientific Reports, 2019, 9, 7938.	3.3	28

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37	Multifunctional Gold Nanoparticles for the SERS Detection of Pathogens Combined with a LAMP- <i>in situ</i> Microdroplets Approach. <i>Materials</i> , 2020, 13, 1934.	2.9	28
38	SERS Study of the Controllable Release of Nitric Oxide from Aromatic Nitrosothiols on Bimetallic, Bifunctional Nanoparticles Supported on Carbon Nanotubes. <i>ACS Applied Materials &amp; Interfaces</i> , 2009, 1, 56-59.	8.0	23
39	Decoupling the shape parameter to assess gold nanorod uptake by mammalian cells. <i>Nanoscale</i> , 2016, 8, 16416-16426.	5.6	23
40	Polymer-Coated Gold Nanospheres Do Not Impair the Innate Immune Function of Human B Lymphocytes <i>in Vitro</i> . <i>ACS Nano</i> , 2019, 13, 6790-6800.	14.6	23
41	A new angle on dynamic depolarized light scattering: number-averaged size distribution of nanoparticles in focus. <i>Nanoscale</i> , 2016, 8, 15813-15821.	5.6	22
42	Assessing the Stability of Fluorescently Encoded Nanoparticles in Lysosomes by Using Complementary Methods. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13382-13386.	13.8	22
43	Improved Photocatalyzed Degradation of Phenol, as a Model Pollutant, over Metal-Impregnated Nanosized TiO <sub>2</sub> . <i>Nanomaterials</i> , 2020, 10, 996.	4.1	22
44	Phase Transformation of Superparamagnetic Iron Oxide Nanoparticles via Thermal Annealing: Implications for Hyperthermia Applications. <i>ACS Applied Nano Materials</i> , 2019, 2, 4462-4470.	5.0	20
45	Exposure to silver nanoparticles affects viability and function of natural killer cells, mostly via the release of ions. <i>Cell Biology and Toxicology</i> , 2018, 34, 167-176.	5.3	17
46	Are TiO <sub>2</sub> nanoparticles safe for photocatalysis in aqueous media?. <i>Nanoscale Advances</i> , 2020, 2, 4951-4960.	4.6	14
47	A comparative study of silver nanoparticle dissolution under physiological conditions. <i>Nanoscale Advances</i> , 2020, 2, 5760-5768.	4.6	13
48	Artificial Lysosomal Platform to Study Nanoparticle Long-term Stability. <i>Chimia</i> , 2019, 73, 55.	0.6	12
49	Distribution of polymer-coated gold nanoparticles in a 3D lung model and indication of apoptosis after repeated exposure. <i>Nanomedicine</i> , 2018, 13, 1169-1185.	3.3	11
50	Quantification of Carbon Nanotube Doses in Adherent Cell Culture Assays Using UV-VIS-NIR Spectroscopy. <i>Nanomaterials</i> , 2019, 9, 1765.	4.1	11
51	Revealing the Role of Epithelial Mechanics and Macrophage Clearance during Pulmonary Epithelial Injury Recovery in the Presence of Carbon Nanotubes. <i>Advanced Materials</i> , 2018, 30, e1806181.	21.0	10
52	A SERS-based 3D nanobiosensor: towards cell metabolite monitoring. <i>Materials Advances</i> , 2020, 1, 1613-1621.	5.4	10
53	Distribution of Silica-Coated Silver/Gold Nanostars in Soft- and Hardwood Applying SERS-Based Imaging. <i>Langmuir</i> , 2016, 32, 274-283.	3.5	9
54	Nanoparticle Behaviour in Complex Media: Methods for Characterizing Physicochemical Properties, Evaluating Protein Corona Formation, and Implications for Biological Studies. <i>Nanoscience and Technology</i> , 2019, , 101-150.	1.5	8

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55	Field gradient imaging of nanoparticle systems: analysis of geometry and surface coating effects. <i>Nanotechnology</i> , 2009, 20, 095708.	2.6	7
56	Carbon nanodots: Opportunities and limitations to study their biodistribution at the human lung epithelial tissue barrier. <i>Biointerphases</i> , 2018, 13, 06D404.	1.6	7
57	A novel microfluidic system for the sensitive and cost-effective detection of okadaic acid in mussels. <i>Analyst</i> , The, 2021, 146, 2638-2645.	3.5	7
58	Assumption-free morphological quantification of single anisotropic nanoparticles and aggregates. <i>Nanoscale</i> , 2017, 9, 4918-4927.	5.6	6
59	A rational and iterative process for targeted nanoparticle design and validation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 171, 579-589.	5.0	6
60	Particle Surfaces to Study Macrophage Adherence, Migration, and Clearance. <i>Advanced Functional Materials</i> , 2020, 30, 2002630.	14.9	6
61	Detection of Silver Nanoparticles in Seawater Using Surface-Enhanced Raman Scattering. <i>Nanomaterials</i> , 2021, 11, 1711.	4.1	6
62	Fundamentals of Biosensors and Detection Methods. <i>Advances in Experimental Medicine and Biology</i> , 2022, , 3-29.	1.6	5
63	The Choice of Nanoparticle Surface-Coupled Fluorescent Dyes Impacts Cellular Interaction. <i>ChemNanoMat</i> , 2022, 8, .	2.8	3
64	Surface-enhanced Raman scattering (SERS) nanoparticle sensors for biochemical and environmental sensing. , 2014, , 197-230.		2
65	Assessing the Stability of Fluorescently Encoded Nanoparticles in Lysosomes by Using Complementary Methods. <i>Angewandte Chemie</i> , 2017, 129, 13567-13571.	2.0	2
66	A Bio-Inspired Amplification Cascade for the Detection of Rare Cancer Cells. <i>Chimia</i> , 2019, 73, 63-68.	0.6	2
67	Impurities in polyvinylpyrrolidone: the key factor in the synthesis of gold nanostars. <i>Nanoscale Advances</i> , 2022, 4, 387-392.	4.6	2
68	Encoded Particles: Fluorescence-Encoded Gold Nanoparticles: Library Design and Modulation of Cellular Uptake into Dendritic Cells (Small 7/2014). <i>Small</i> , 2014, 10, 1440-1440.	10.0	1
69	Effect of engineered nanoparticles on natural killer cells <i>in vitro</i> . , 2015, , .		1