

Pier Paolo Pompa

List of Publications by Year in descending order

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118
papers

7,252
citations

70961

41
h-index

56606

83
g-index

123
all docs

123
docs citations

123
times ranked

12575
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanosilver-based antibacterial drugs and devices: Mechanisms, methodological drawbacks, and guidelines. <i>Chemical Society Reviews</i> , 2014, 43, 1501-1518.	18.7	662
2	Effects of Cell Culture Media on the Dynamic Formation of Protein-Nanoparticle Complexes and Influence on the Cellular Response. <i>ACS Nano</i> , 2010, 4, 7481-7491.	7.3	543
3	A general mechanism for intracellular toxicity of metal-containing nanoparticles. <i>Nanoscale</i> , 2014, 6, 7052.	2.8	383
4	Absolute and Direct MicroRNA Quantification Using DNA-Gold Nanoparticle Probes. <i>Journal of the American Chemical Society</i> , 2014, 136, 2264-2267.	6.6	355
5	Platinum nanoparticles in nanobiomedicine. <i>Chemical Society Reviews</i> , 2017, 46, 4951-4975.	18.7	314
6	InP/ZnS as a safer alternative to CdSe/ZnS core/shell quantum dots: in vitro and in vivo toxicity assessment. <i>Nanoscale</i> , 2013, 5, 307-317.	2.8	281
7	All-natural composite wound dressing films of essential oils encapsulated in sodium alginate with antimicrobial properties. <i>International Journal of Pharmaceutics</i> , 2014, 463, 137-145.	2.6	241
8	Negligible particle-specific toxicity mechanism of silver nanoparticles: The role of Ag ⁺ ion release in the cytosol. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2015, 11, 731-739.	1.7	220
9	Laser Ablation as a Versatile Tool To Mimic Polyethylene Terephthalate Nanoplastic Pollutants: Characterization and Toxicology Assessment. <i>ACS Nano</i> , 2018, 12, 7690-7700.	7.3	208
10	Platinum nanozymes recover cellular ROS homeostasis in an oxidative stress-mediated disease model. <i>Nanoscale</i> , 2016, 8, 3739-3752.	2.8	203
11	Charge transport and intrinsic fluorescence in amyloid-like fibrils. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 18019-18024.	3.3	192
12	Toxicity Assessment of Silica Coated Iron Oxide Nanoparticles and Biocompatibility Improvement by Surface Engineering. <i>PLoS ONE</i> , 2014, 9, e85835.	1.1	186
13	SiO ₂ nanoparticles biocompatibility and their potential for gene delivery and silencing. <i>Nanoscale</i> , 2012, 4, 486-495.	2.8	130
14	Lipopolyplex potentiates anti-tumor immunity of mRNA-based vaccination. <i>Biomaterials</i> , 2017, 125, 81-89.	5.7	128
15	Mutagenic effects of gold nanoparticles induce aberrant phenotypes in <i>Drosophila melanogaster</i> . <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2012, 8, 1-7.	1.7	114
16	Impact of Nanoscale Topography on Genomics and Proteomics of Adherent Bacteria. <i>ACS Nano</i> , 2011, 5, 1865-1876.	7.3	103
17	Water-Repellent Cellulose Fiber Networks with Multifunctional Properties. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 4024-4031.	4.0	103
18	Monodispersed and size-controlled multibranching gold nanoparticles with nanoscale tuning of surface morphology. <i>Nanoscale</i> , 2011, 3, 2227.	2.8	101

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19	Gold-Nanoparticle-Based Colorimetric Discrimination of Cancer-Related Point Mutations with Picomolar Sensitivity. <i>ACS Nano</i> , 2013, 7, 5530-5538.	7.3	101
20	Super-resolution fluorescence imaging of biocompatible carbon dots. <i>Nanoscale</i> , 2014, 6, 8617.	2.8	97
21	Controlled antiseptic release by alginate polymer films and beads. <i>Carbohydrate Polymers</i> , 2013, 92, 176-183.	5.1	95
22	Transparent ciprofloxacin-povidone antibiotic films and nanofiber mats as potential skin and wound care dressings. <i>European Journal of Pharmaceutical Sciences</i> , 2017, 104, 133-144.	1.9	95
23	In Vivo toxicity assessment of gold nanoparticles in <i>Drosophila melanogaster</i> . <i>Nano Research</i> , 2011, 4, 405-413.	5.8	83
24	The biocompatibility of amino functionalized CdSe/ZnS quantum-dot-Doped SiO ₂ nanoparticles with primary neural cells and their gene carrying performance. <i>Biomaterials</i> , 2010, 31, 6555-6566.	5.7	73
25	Concentration-Dependent, Size-Independent Toxicity of Citrate Capped AuNPs in <i>Drosophila melanogaster</i> . <i>PLoS ONE</i> , 2012, 7, e29980.	1.1	73
26	Transport across the cell-membrane dictates nanoparticle fate and toxicity: a new paradigm in nanotoxicology. <i>Nanoscale</i> , 2014, 6, 10264-10273.	2.8	73
27	Boron dipyrromethene (BODIPY) functionalized carbon nano-onions for high resolution cellular imaging. <i>Nanoscale</i> , 2014, 6, 13761-13769.	2.8	72
28	Preparation and characterization of molecularly imprinted mussel inspired film as antifouling and selective layer for electrochemical detection of sulfamethoxazole. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 3374-3383.	4.0	71
29	Amyloid-like Fibrils in Elastin-Related Polypeptides: Structural Characterization and Elastic Properties. <i>Biomacromolecules</i> , 2008, 9, 796-803.	2.6	68
30	Micro/Nanoscale Patterning of Nanostructured Metal Substrates for Plasmonic Applications. <i>ACS Nano</i> , 2009, 3, 893-900.	7.3	58
31	A Universal Polymerase Chain Reaction Developer. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2157-2160.	7.2	58
32	Nanotechnology-Based Strategies for the Detection and Quantification of MicroRNA. <i>Chemistry - A European Journal</i> , 2014, 20, 9476-9492.	1.7	56
33	Gold nanoparticles for naked-eye DNA detection: smart designs for sensitive assays. <i>RSC Advances</i> , 2013, 3, 19181.	1.7	54
34	Platinum Nanozyme-Enabled Colorimetric Determination of Total Antioxidant Level in Saliva. <i>Analytical Chemistry</i> , 2020, 92, 8660-8664.	3.2	54
35	Physical assessment of toxicology at nanoscale: nano dose-metrics and toxicity factor. <i>Nanoscale</i> , 2011, 3, 2889.	2.8	53
36	Lab-on-a-Chip-Based High-Throughput Screening of the Genotoxicity of Engineered Nanomaterials. <i>Small</i> , 2014, 10, 2721-2734.	5.2	52

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37	DNA Barcoding Meets Nanotechnology: Development of a Universal Colorimetric Test for Food Authentication. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8094-8098.	7.2	50
38	Dispersion state phase diagram of citrate-coated metallic nanoparticles in saline solutions. <i>Nature Communications</i> , 2020, 11, 5422.	5.8	47
39	Effect of silica nanoparticles with variable size and surface functionalization on human endothelial cell viability and angiogenic activity. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	0.8	45
40	Toxicity of citrate-capped AuNPs: an in vitro and in vivo assessment. <i>Journal of Nanoparticle Research</i> , 2011, 13, 6821-6835.	0.8	44
41	Impact of Amorphous SiO ₂ Nanoparticles on a Living Organism: Morphological, Behavioral, and Molecular Biology Implications. <i>Frontiers in Bioengineering and Biotechnology</i> , 2014, 2, 37.	2.0	43
42	Synthesis of highly stable silver nanoparticles by photoreduction and their size fractionation by phase transfer method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 392, 264-270.	2.3	42
43	All natural cellulose acetate-Lemongrass essential oil antimicrobial nanocapsules. <i>International Journal of Pharmaceutics</i> , 2016, 510, 508-515.	2.6	42
44	Biotransformation and Biological Interaction of Graphene and Graphene Oxide during Simulated Oral Ingestion. <i>Small</i> , 2018, 14, e1800227.	5.2	42
45	Enhanced fluorescence by metal nanospheres on metal substrates. <i>Optics Letters</i> , 2009, 34, 2381.	1.7	39
46	Molecular response of Escherichia coli adhering onto nanoscale topography. <i>Nanoscale Research Letters</i> , 2012, 7, 575.	3.1	37
47	Label-Free Isothermal Amplification Assay for Specific and Highly Sensitive Colorimetric miRNA Detection. <i>ACS Omega</i> , 2016, 1, 448-455.	1.6	36
48	Intracellular Antioxidant Activity of Biocompatible Citrate-Capped Palladium Nanozymes. <i>Nanomaterials</i> , 2020, 10, 99.	1.9	36
49	An innovative and simple all electrochemical approach to functionalize electrodes with a carbon nanotubes/polypyrrole molecularly imprinted nanocomposite and its application for sulfamethoxazole analysis. <i>Journal of Colloid and Interface Science</i> , 2021, 599, 676-685.	5.0	36
50	Antibacterial Melamine Foams Decorated with <i>in Situ</i> Synthesized Silver Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 16095-16104.	4.0	35
51	Nanocatalyst/Nanoplasmon-Enabled Detection of Organic Mercury: A One-Minute Visual Test. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 10285-10289.	7.2	35
52	PMA-Induced THP-1 Macrophage Differentiation is Not Impaired by Citrate-Coated Platinum Nanoparticles. <i>Nanomaterials</i> , 2017, 7, 332.	1.9	34
53	PET nanoplastics interactions with water contaminants and their impact on human cells. <i>Environmental Pollution</i> , 2021, 271, 116262.	3.7	33
54	Xylenol orange-based loop-mediated DNA isothermal amplification for sensitive naked-eye detection of Escherichia coli. <i>Journal of Microbiological Methods</i> , 2019, 156, 9-14.	0.7	32

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55	Multifunctional Platinum@BSA@Rapamycin Nanocarriers for the Combinatorial Therapy of Cerebral Cavernous Malformation. <i>ACS Omega</i> , 2018, 3, 15389-15398.	1.6	31
56	Platinum Nanoparticles Decrease Reactive Oxygen Species and Modulate Gene Expression without Alteration of Immune Responses in THP-1 Monocytes. <i>Nanomaterials</i> , 2018, 8, 392.	1.9	31
57	Antimicrobial Lemongrass Essential Oil@Copper Ferrite Cellulose Acetate Nanocapsules. <i>Molecules</i> , 2016, 21, 520.	1.7	30
58	Antiangiogenic Effect of Graphene Oxide in Primary Human Endothelial Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 22507-22518.	4.0	29
59	Bare Platinum Nanoparticles Deposited on Glassy Carbon Electrodes for Electrocatalytic Detection of Hydrogen Peroxide. <i>ACS Applied Nano Materials</i> , 2021, 4, 7650-7662.	2.4	27
60	Multifunctional PDMS polyHIPE filters for oil-water separation and antibacterial activity. <i>Separation and Purification Technology</i> , 2021, 255, 117748.	3.9	26
61	Relevance to investigate different stages of pregnancy to highlight toxic effects of nanoparticles: The example of silica. <i>Toxicology and Applied Pharmacology</i> , 2018, 342, 60-68.	1.3	24
62	Citrate-Coated, Size-Tunable Octahedral Platinum Nanocrystals: A Novel Route for Advanced Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 41608-41617.	4.0	24
63	Particle size affects the cytosolic delivery of membranotropic peptide-functionalized platinum nanozymes. <i>Nanoscale</i> , 2017, 9, 11288-11296.	2.8	23
64	Colorimetric detection of human papilloma virus by double isothermal amplification. <i>Chemical Communications</i> , 2013, 49, 10605.	2.2	21
65	Sputtering-Enabled Intracellular X-ray Photoelectron Spectroscopy: A Versatile Method To Analyze the Biological Fate of Metal Nanoparticles. <i>ACS Nano</i> , 2018, 12, 7731-7740.	7.3	21
66	Conformation of Microcontact-Printed Proteins by Atomic Force Microscopy Molecular Sizing. <i>Langmuir</i> , 2005, 21, 5154-5158.	1.6	20
67	Controlled antiseptic/eosin release from chitosan-based hydrogel modified fibrous substrates. <i>Carbohydrate Polymers</i> , 2015, 131, 306-314.	5.1	20
68	The Effect of Irradiation Wavelength on the Quality of CdS Nanocrystals Formed Directly into PMMA Matrix. <i>Journal of Physical Chemistry C</i> , 2010, 114, 13985-13990.	1.5	19
69	Delivery of biologically active miR-34a in normal and cancer mammary epithelial cells by synthetic nanoparticles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019, 19, 95-105.	1.7	19
70	Seed-Mediated Synthesis and Catalytic ORR Reactivity of Facet-Stable, Monodisperse Platinum Nano-Octahedra. <i>ACS Applied Energy Materials</i> , 2021, 4, 9542-9552.	2.5	18
71	Paper-Based Multiplexed Colorimetric Device for the Simultaneous Detection of Salivary Biomarkers. <i>Biosensors</i> , 2021, 11, 443.	2.3	18
72	Internalization of Carbon Nano-onions by Hippocampal Cells Preserves Neuronal Circuit Function and Recognition Memory. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 16952-16963.	4.0	17

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73	Colorimetric Nanoplasmonics to Spot Hyperglycemia From Saliva. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 601216.	2.0	17
74	Spectral tagging by integrated photonic crystal resonators for highly sensitive and parallel detection in biochips. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	16
75	Nanosensors for Visual Detection of Glucose in Biofluids: Are We Ready for Instrument-Free Home-Testing?. <i>Materials</i> , 2021, 14, 1978.	1.3	16
76	Thermally-induced in situ growth of ZnO nanoparticles in polymeric fibrous membranes. <i>Composites Science and Technology</i> , 2017, 149, 11-19.	3.8	15
77	Localized formation and size tuning of CdS nanocrystals upon irradiation of metal precursors embedded in polymer matrices. <i>Microelectronic Engineering</i> , 2009, 86, 816-819.	1.1	14
78	The Effect of Polymer Matrices in the <I>In-Situ</I> CdS Formation Under UV Irradiation of Precursor-Polymer Films. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 1267-1272.	0.9	14
79	Ultra-efficient, widely tunable gold nanoparticle-based fiducial markers for X-ray imaging. <i>Nanoscale</i> , 2016, 8, 18921-18927.	2.8	14
80	Design Rules for Mesoporous Silica toward the Nanosize: A Systematic Study. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 47237-47246.	4.0	14
81	An amplification-free colorimetric test for sensitive DNA detection based on the capturing of gold nanoparticle clusters. <i>Nanoscale</i> , 2020, 12, 15604-15610.	2.8	14
82	Synthesis of fluorescent metal nanoparticles in aqueous solution by photochemical reduction. <i>Nanotechnology</i> , 2014, 25, 045601.	1.3	13
83	In Situ Generation of ZnO Nanoparticles within a Polyethyleneimine Matrix for Antibacterial Zein Fibers. <i>ACS Applied Polymer Materials</i> , 2019, 1, 1707-1716.	2.0	13
84	Association Mechanism of Peptide-Coated Metal Nanoparticles with Model Membranes: A Coarse-Grained Study. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 4512-4523.	2.3	13
85	Biotransformation of Silver Nanoparticles into Oro-Gastrointestinal Tract by Integrated In Vitro Testing Assay: Generation of Exposure-Dependent Physical Descriptors for Nanomaterial Grouping. <i>Nanomaterials</i> , 2021, 11, 1587.	1.9	13
86	CXCL12-PLGA/Pluronic Nanoparticle Internalization Abrogates CXCR4-Mediated Cell Migration. <i>Nanomaterials</i> , 2020, 10, 2304.	1.9	12
87	A Fast, Naked-Eye Assay for Varietal Traceability in the Durum Wheat Production Chain. <i>Foods</i> , 2020, 9, 1691.	1.9	12
88	Spiky Gold Nanoparticles for the Photothermal Eradication of Colon Cancer Cells. <i>Nanomaterials</i> , 2021, 11, 1608.	1.9	11
89	Synthesis of Citrate-Coated Penta-twinned Palladium Nanorods and Ultrathin Nanowires with a Tunable Aspect Ratio. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 49935-49944.	4.0	10
90	Potential Applications of Nanomaterials to Quench the Cytokine Storm in Coronavirus Disease 19. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 906.	2.0	10

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91	CdSe/CdS Semiconductor Quantum Rods as Robust Fluorescent Probes for Paraffin-Embedded Tissue Imaging. <i>IEEE Transactions on Nanobioscience</i> , 2011, 10, 209-215.	2.2	8
92	Boosting the therapeutic efficiency of nanovectors: exocytosis engineering. <i>Nanoscale</i> , 2017, 9, 3757-3765.	2.8	8
93	From DNA barcoding to nanoparticle-based colorimetric testing: a new frontier in cephalopod authentication. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 1053-1060.	1.6	8
94	Nanocatalyst-Enabled Physically Unclonable Functions as Smart Anticounterfeiting Tags with AI-Aided Smartphone Authentication. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 25898-25906.	4.0	8
95	DNA Barcoding Meets Nanotechnology: Development of a Universal Colorimetric Test for Food Authentication. <i>Angewandte Chemie</i> , 2017, 129, 8206-8210.	1.6	7
96	In Vitro Bloodâ€‘Brain Barrier Models for Nanomedicine: Particle-Specific Effects and Methodological Drawbacks. <i>ACS Applied Bio Materials</i> , 2019, 2, 3279-3289.	2.3	7
97	A Rapid Colorimetric Assay for On-Site Authentication of Cephalopod Species. <i>Biosensors</i> , 2020, 10, 190.	2.3	7
98	Azurin for Biomolecular Electronics: a Reliability Study. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 6864-6866.	0.8	6
99	CXCL5 Modified Nanoparticle Surface Improves CXCR2+ Cell Selective Internalization. <i>Cells</i> , 2020, 9, 56.	1.8	6
100	Nanoplasmonic Strip Test for Salivary Glucose Monitoring. <i>Nanomaterials</i> , 2022, 12, 105.	1.9	6
101	Parallel and high sensitive photonic crystal cavity assisted read-out for DNA-chips. <i>Microelectronic Engineering</i> , 2010, 87, 747-749.	1.1	5
102	A Universal Polymerase Chain Reaction Developer. <i>Angewandte Chemie</i> , 2016, 128, 2197-2200.	1.6	5
103	Lactose-Gated Mesoporous Silica Particles for Intestinal Controlled Delivery of Essential Oil Components: An In Vitro and In Vivo Study. <i>Pharmaceutics</i> , 2021, 13, 982.	2.0	5
104	From a Chemotherapeutic Drug to a High-Performance Nanocatalyst: A Fast Colorimetric Test for Cisplatin Detection at ppb Level. <i>Biosensors</i> , 2022, 12, 375.	2.3	5
105	Naked-eye fingerprinting of single nucleotide polymorphisms on psoriasis patients. <i>Nanoscale</i> , 2016, 8, 11027-11033.	2.8	4
106	Nanocatalyst/Nanoplasmonâ€‘Enabled Detection of Organic Mercury: Aâ€‘Oneâ€‘Minute Visual Test. <i>Angewandte Chemie</i> , 2019, 131, 10391-10395.	1.6	4
107	A nanocomposite hydrogel with catalytic properties for trace-element detection in real-world samples. <i>Scientific Reports</i> , 2020, 10, 18340.	1.6	4
108	Colorimetric Point-of-Care Detection of Clostridium tyrobutyricum Spores in Milk Samples. <i>Biosensors</i> , 2021, 11, 293.	2.3	4

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109	Zinc Polyaleuritrate Ionomer Coatings as a Sustainable, Alternative Technology for Bisphenol A-Free Metal Packaging. ACS Sustainable Chemistry and Engineering, 2021, 9, 15484-15495.	3.2	4
110	Green chemistry and first-principles theory enhance catalysis: synthesis and 6-fold catalytic activity increase of sub-5 nm Pd and Pt@Pd nanocubes. Nanoscale, 2022, 14, 10155-10168.	2.8	4
111	Gold nanoparticles based colorimetric nanodiagnostics for cancer and infectious diseases. Proceedings of SPIE, 2014, , .	0.8	3
112	A gold nanoparticles-based colorimetric test to detect single nucleotide polymorphisms for improvement of personalized therapy of psoriasis. Proceedings of SPIE, 2016, , .	0.8	3
113	Digital PCR for Genotype Quantification: A Case Study in a Pasta Production Chain. Biology, 2021, 10, 419.	1.3	3
114	Highly luminescent, flexible and biocompatible cadmium-based nanocomposites. Microelectronic Engineering, 2013, 111, 299-303.	1.1	2
115	Graphene Biotransformation: Biotransformation and Biological Interaction of Graphene and Graphene Oxide during Simulated Oral Ingestion (Small 24/2018). Small, 2018, 14, 1870113.	5.2	2
116	Correction: Ultra-efficient, widely tunable gold nanoparticles-based fiducial markers for X-ray imaging. Nanoscale, 2016, 8, 19176-19176.	2.8	0
117	A naked-eye colorimetric "PCR developer". Proceedings of SPIE, 2016, , .	0.8	0
118	Hybrid nanosensor for colorimetric and ultrasensitive detection of nuclease contaminations. Proceedings of SPIE, 2016, , .	0.8	0