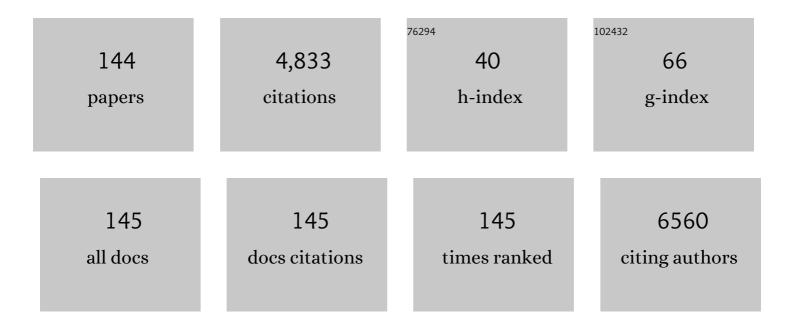
## Boris Nikolayevich Khlebtsov

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Optical amplification of photothermal therapy with gold nanoparticles and nanoclusters. Nanotechnology, 2006, 17, 5167-5179.	1.3	368
2	Laser-induced tissue hyperthermia mediated by gold nanoparticles: toward cancer phototherapy. Journal of Biomedical Optics, 2009, 14, 021016.	1.4	181
3	Multipole Plasmons in Metal Nanorods:  Scaling Properties and Dependence on Particle Size, Shape, Orientation, and Dielectric Environment. Journal of Physical Chemistry C, 2007, 111, 11516-11527.	1.5	173
4	Analytical and Theranostic Applications of Gold Nanoparticles and Multifunctional Nanocomposites. Theranostics, 2013, 3, 167-180.	4.6	166
5	Gold Nanoisland Films as Reproducible SERS Substrates for Highly Sensitive Detection of Fungicides. ACS Applied Materials & Interfaces, 2015, 7, 6518-6529.	4.0	158
6	Circulation and distribution of gold nanoparticles and induced alterations of tissue morphology at intravenous particle delivery. Journal of Biophotonics, 2009, 2, 292-302.	1.1	144
7	Nanocomposites Containing Silica-Coated Gold–Silver Nanocages and Yb–2,4-Dimethoxyhematoporphyrin: Multifunctional Capability of IR-Luminescence Detection, Photosensitization, and Photothermolysis. ACS Nano, 2011, 5, 7077-7089.	7.3	143
8	Gold nanorods with a hematoporphyrin-loaded silica shell for dual-modality photodynamic and photothermal treatment of tumors in vivo. Nano Research, 2014, 7, 325-337.	5.8	136
9	Determination of the Size, Concentration, and Refractive Index of Silica Nanoparticles from Turbidity Spectra. Langmuir, 2008, 24, 8964-8970.	1.6	119
10	Towards Effective Photothermal/Photodynamic Treatment Using Plasmonic Gold Nanoparticles. International Journal of Molecular Sciences, 2016, 17, 1295.	1.8	113
11	SERS-based lateral flow immunoassay of troponin I by using gap-enhanced Raman tags. Nano Research, 2019, 12, 413-420.	5.8	105
12	Absorption and scattering of light by a dimer of metal nanospheres: comparison of dipole and multipole approaches. Nanotechnology, 2006, 17, 1437-1445.	1.3	99
13	Quantifying the Numbers of Gold Nanoparticles in the Test Zone of Lateral Flow Immunoassay Strips. ACS Applied Nano Materials, 2019, 2, 5020-5028.	2.4	98
14	Impact of albumin based approaches in nanomedicine: Imaging, targeting and drug delivery. Advances in Colloid and Interface Science, 2017, 246, 13-39.	7.0	97
15	Overgrowth of Gold Nanorods by Using a Binary Surfactant Mixture. Langmuir, 2014, 30, 1696-1703.	1.6	93
16	Surface-enhanced Raman scattering inside Au@Ag core/shell nanorods. Nano Research, 2016, 9, 2303-2318.	5.8	85
17	Gap-enhanced Raman tags: fabrication, optical properties, and theranostic applications. Theranostics, 2020, 10, 2067-2094.	4.6	85
18	Plasmonic Heating Plays a Dominant Role in the Plasmon-Induced Photocatalytic Reduction of 4-Nitrobenzenethiol. Journal of Physical Chemistry C, 2018, 122, 5657-5663.	1.5	84

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19	Preparation and optical scattering characterization of gold nanorods and their application to a dot-immunogold assay. Applied Optics, 2005, 44, 6285.	2.1	82
20	Coupled plasmon resonances in monolayers of metal nanoparticles and nanoshells. Physical Review B, 2008, 77, .	1.1	74
21	Contrasting properties of gold nanoshells and titanium dioxide nanoparticles for optical coherence tomography imaging of skin: Monte Carlo simulations and in vivo study. Journal of Biomedical Optics, 2009, 14, 021017.	1.4	69
22	Near-infrared laser photothermal therapy of cancer by using gold nanoparticles: Computer simulations and experiment. Medical Laser Application: International Journal for Laser Treatment and Research, 2007, 22, 199-206.	0.4	67
23	Rational Design of Ultrabright SERS Probes with Embedded Reporters for Bioimaging and Photothermal Therapy. ACS Applied Materials & Interfaces, 2017, 9, 30387-30397.	4.0	63
24	Gold nanoshell photomodification under a single-nanosecond laser pulse accompanied by color-shifting and bubble formation phenomena. Nanotechnology, 2008, 19, 015701.	1.3	62
25	Observation of Extra-High Depolarized Light Scattering Spectra from Gold Nanorods. Journal of Physical Chemistry C, 2008, 112, 12760-12768.	1.5	60
26	A New T-Matrix Solvable Model for Nanorods: TEM-Based Ensemble Simulations Supported by Experiments. Journal of Physical Chemistry C, 2011, 115, 6317-6323.	1.5	59
27	High-efficiency freezing-induced loading of inorganic nanoparticles and proteins into micron- and submicron-sized porous particles. Scientific Reports, 2018, 8, 17763.	1.6	58
28	Au@Ag core/shell cuboids and dumbbells: Optical properties and SERS response. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 167, 64-75.	1.1	57
29	Gold nanoparticles as an adjuvant: Influence of size, shape, and technique of combination with CpG on antibody production. International Immunopharmacology, 2018, 54, 163-168.	1.7	57
30	Can the Light Scattering Depolarization Ratio of Small Particles Be Greater Than 1/3?. Journal of Physical Chemistry B, 2005, 109, 13578-13584.	1.2	56
31	Surface-Enhanced Raman Scattering Substrates Based on Self-Assembled PEGylated Gold and Gold–Silver Core–Shell Nanorods. Journal of Physical Chemistry C, 2013, 117, 23162-23171.	1.5	56
32	Pilot study of transcranial photobiomodulation of lymphatic clearance of beta-amyloid from the mouse brain: breakthrough strategies for non-pharmacologic therapy of Alzheimer's disease. Biomedical Optics Express, 2019, 10, 4003.	1.5	56
33	Biosensing potential of silica/gold nanoshells: Sensitivity of plasmon resonance to the local dielectric environment. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 154-169.	1.1	51
34	Enhanced photoinactivation of <i>Staphylococcus aureus</i> with nanocomposites containing plasmonic particles and hematoporphyrin. Journal of Biophotonics, 2013, 6, 338-351.	1.1	51
35	Surface-Enhanced Raman Scattering-Based Lateral-Flow Immunoassay. Nanomaterials, 2020, 10, 2228.	1.9	46
36	A protein assay based on colloidal gold conjugates with trypsin. Analytical Biochemistry, 2005, 341, 16-21.	1.1	45

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37	Plasmonic Nanopowders for Photothermal Therapy of Tumors. Langmuir, 2012, 28, 8994-9002.	1.6	45
38	Multiplexed dot immunoassay using Ag nanocubes, Au/Ag alloy nanoparticles, and Au/Ag nanocages. Nano Research, 2012, 5, 124-134.	5.8	42
39	SERS substrates formed by gold nanorods deposited on colloidal silica films. Nanoscale Research Letters, 2013, 8, 250.	3.1	42
40	Improved size-tunable synthesis and SERS properties of Au nanostars. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	42
41	Photodynamic opening of the blood-brain barrier and pathways of brain clearing. Journal of Biophotonics, 2018, 11, e201700287.	1.1	42
42	Multifunctional Au nanoclusters for targeted bioimaging and enhanced photodynamic inactivation of Staphylococcus aureus. RSC Advances, 2015, 5, 61639-61649.	1.7	40
43	Enhanced solid-phase immunoassay using gold nanoshells: effect of nanoparticle optical properties. Nanotechnology, 2008, 19, 435703.	1.3	38
44	Reexamination of Surface-Enhanced Raman Scattering from Gold Nanorods as a Function of Aspect Ratio and Shape. Journal of Physical Chemistry C, 2020, 124, 10647-10658.	1.5	38
45	In-situ NIR-laser mediated bioactive substance delivery to single cell for EGFP expression based on biocompatible microchamber-arrays. Journal of Controlled Release, 2018, 276, 84-92.	4.8	37
46	A novel cell transfection platform based on laser optoporation mediated by Au nanostar layers. Journal of Biophotonics, 2019, 12, e201800166.	1.1	37
47	Composite SERS-based satellites navigated by optical tweezers for single cell analysis. Analyst, The, 2015, 140, 4981-4986.	1.7	36
48	Ultrasharp light-scattering resonances of structured nanospheres: effects of size-dependent dielectric functions. Journal of Biomedical Optics, 2006, 11, 044002.	1.4	35
49	Tunable depolarized light scattering from gold and gold/silver nanorods. Physical Chemistry Chemical Physics, 2010, 12, 3210.	1.3	35
50	Nanoplasmonically-Induced Defects in Lipid Membrane Monitored by Ion Current: Transient Nanopores versus Membrane Rupture. Nano Letters, 2014, 14, 4273-4279.	4.5	35
51	Surface Morphology of a Gold Core Controls the Formation of Hollow or Bridged Nanogaps in Plasmonic Nanomatryoshkas and Their SERS Responses. Journal of Physical Chemistry C, 2016, 120, 15385-15394.	1.5	34
52	In vitro and in vivo MRI visualization of nanocomposite biodegradable microcapsules with tunable contrast. Physical Chemistry Chemical Physics, 2016, 18, 32238-32246.	1.3	31
53	Quantitative cell bioimaging using goldâ€nanoshell conjugates and phage antibodies. Journal of Biophotonics, 2011, 4, 74-83.	1.1	29
54	Multipolarization Dynamic Light Scattering of Nonspherical Nanoparticles in Solution. Journal of Physical Chemistry C, 2017, 121, 3070-3077.	1.5	29

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55	Tip-Functionalized Au@Ag Nanorods as Ultrabright Surface-Enhanced Raman Scattering Probes for Bioimaging in Off-Resonance Mode. Journal of Physical Chemistry C, 2018, 122, 17983-17993.	1.5	29
56	Photothermal and Photodynamic Therapy of Tumors with Plasmonic Nanoparticles: Challenges and Prospects. Materials, 2022, 15, 1606.	1.3	29
57	Golden Vaterite as a Mesoscopic Metamaterial for Biophotonic Applications. Advanced Materials, 2021, 33, e2008484.	11.1	27
58	A solid-phase dot assay using silica/gold nanoshells. Nanoscale Research Letters, 2007, 2, 6-11.	3.1	25
59	Plasmonic photothermal therapy: Approaches to advanced strategy. Lasers in Surgery and Medicine, 2018, 50, 1025-1033.	1.1	22
60	Polydopamine-coated Au nanorods for targeted fluorescent cell imaging and photothermal therapy. Beilstein Journal of Nanotechnology, 2019, 10, 794-803.	1.5	22
61	Lateral Flow Immunoassay of SARS-CoV-2 Antigen with SERS-Based Registration: Development and Comparison with Traditional Immunoassays. Biosensors, 2021, 11, 510.	2.3	22
62	Optimal design of gold nanomatryoshkas with embedded Raman reporters. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 190, 89-102.	1.1	19
63	Carbon dot aggregates as an alternative to gold nanoparticles for the laser-induced opening of microchamber arrays. Soft Matter, 2018, 14, 9012-9019.	1.2	19
64	Advantages of Highly Spherical Gold Nanoparticles as Labels for Lateral Flow Immunoassay. Sensors, 2020, 20, 3608.	2.1	19
65	Photostability of Contrast Agents for Photoacoustics: The Case of Gold Nanorods. Nanomaterials, 2021, 11, 116.	1.9	19
66	On the extinction multipole plasmons in gold nanorods. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 107, 306-314.	1.1	18
67	Large-scale high-quality 2D silica crystals: dip-drawing formation and decoration with gold nanorods and nanospheres for SERS analysis. Nanotechnology, 2014, 25, 405602.	1.3	18
68	Quantitative and multiplex dot-immunoassay using gap-enhanced Raman tags. RSC Advances, 2017, 7, 40834-40841.	1.7	18
69	Air-Filled Bubbles Stabilized by Gold Nanoparticle/Photodynamic Dye Hybrid Structures for Theranostics. Nanomaterials, 2021, 11, 415.	1.9	18
70	CaCO <sub>3</sub> Nanoparticles Coated with Alternating Layers of Poly-L-Arginine Hydrochloride and Fe <sub>3</sub> O <sub>4</sub> Nanoparticles as Navigable Drug Carriers and Hyperthermia Agents. ACS Applied Nano Materials, 2022, 5, 2994-3006.	2.4	17
71	Optical properties of gold nanoshells on monodisperse silica cores: Experiment and simulations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 187, 1-9.	1.1	16
72	Photoacoustic and fluorescent effects in multilayer plasmonâ€dye interfaces. Journal of Biophotonics, 2019, 12, e201800265.	1.1	16

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73	Small Thiols Stabilize the Shape of Gold Nanorods. Journal of Physical Chemistry C, 2020, 124, 11132-11140.	1.5	16
74	Petal-like Gap-Enhanced Raman Tags with Controllable Structures for High-Speed Raman Imaging. Langmuir, 2020, 36, 5546-5553.	1.6	16
75	A simple Mie-type model for silica-coated gold nanocages. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 121, 23-29.	1.1	15
76	Gold Nanorod Mediated Chlorhexidine Microparticle Formation and Near-Infrared Light Induced Release. Langmuir, 2017, 33, 7982-7993.	1.6	15
77	Optically activated and interrogated plasmonic hydrogels for applications in wound healing. Journal of Biophotonics, 2020, 13, e202000135.	1.1	15
78	Air-Filled Microbubbles Based on Albumin Functionalized with Gold Nanocages and Zinc Phthalocyanine for Multimodal Imaging. Micromachines, 2021, 12, 1161.	1.4	15
79	Polydopamine coating decreases longitudinal plasmon of Au nanorods: Experiment and simulations. Applied Materials Today, 2019, 15, 67-76.	2.3	14
80	A method for studying insoluble immune complexes. Biochimica Et Biophysica Acta - General Subjects, 2004, 1670, 199-207.	1.1	13
81	Extinction and extra-high depolarized light scattering spectra of gold nanorods with improved purity and dimension tunability: direct and inverse problems. Physical Chemistry Chemical Physics, 2014, 16, 5710-5722.	1.3	13
82	Au-nanocluster-loaded human serum albumin nanoparticles with enhanced cellular uptake for fluorescent imaging. Journal of Innovative Optical Health Sciences, 2016, 09, 1650004.	0.5	12
83	Impact of Kapitza resistance on the stability and efficiency of photoacoustic conversion from gold nanorods. Journal of Colloid and Interface Science, 2020, 578, 358-365.	5.0	12
84	Microstructured Optical Waveguide-Based Endoscopic Probe Coated with Silica Submicron Particles. Materials, 2019, 12, 1424.	1.3	10
85	Optical properties of gold spheroidal particles and nanoshells: Effect of the external dielectric medium. , 2005, , .		7
86	Resonant Concentration-Driven Control of Dye Molecule Photodegradation via Strong Optical Coupling to Plasmonic Nanoparticles. Nano Letters, 2022, 22, 105-110.	4.5	7
87	A New Type of SERS Tags: Au@Ag Core/Shell Nanorods with Embedded Aromatic Molecules. Nanotechnologies in Russia, 2017, 12, 495-507.	0.7	6
88	Microstructured Waveguides with Polyelectrolyte-Stabilized Gold Nanostars for SERS Sensing of Dissolved Analytes. Materials, 2018, 11, 734.	1.3	6
89	Live Cell Poration by Au Nanostars to Probe Intracellular Molecular Composition with SERS. Nanomaterials, 2021, 11, 2588.	1.9	6
90	Effect of Surface Modification of Multifunctional Nanocomposite Drug Delivery Carriers with DARPin on Their Biodistribution <i>In Vitro</i> and <i>In Vivo</i> . ACS Applied Bio Materials, 0, , .	2.3	6

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91	Fluctuation of probe beam in thermolens schematics as potential indicator of cell metabolism, apoptosis, necrosis and laser impact. , 2006, , .		5
92	<title>Observation of time-dependent single-particle light scattering from gold nanorods and nanorods and nanospheres by using unpolarized dark-field microscopy</title> . , 2006, , .		4
93	Near-infrared laser photothermal therapy and photodynamic inactivation of cells by using gold nanoparticles and dyes. Proceedings of SPIE, 2007, , .	0.8	4
94	Combined near infrared photothermolysis and photodynamic therapy by association of gold nanoparticles and an organic dye. , 2011, , .		4
95	Precise control of distance between plasmonic surfaceâ€enhanced Raman scattering substrate and analyte molecules with polyelectrolyte layers. Journal of Raman Spectroscopy, 2018, 49, 1581-1593.	1.2	4
96	Improving <scp>SERS</scp> bioimaging of subcutaneous phantom in vivo with optical clearing. Journal of Biophotonics, 2022, 15, e202100281.	1.1	4
97	<title>Study of complex micellar systems by static and dynamic light scattering</title> ., 2004, 5475, 12.		3
98	<title>Optical polarizability of metal nanoparticles and their biospheric conjugates</title> ., 2006, , .		3
99	<title>Optical properties of gold-nanoshell planar array</title> ., 2007, , .		3
100	The development of skin immersion clearing method for increasing of laser exposure efficiency on subcutaneous objects. , 2012, , .		3
101	Analytical and Theranostic Applications of Gold Nanoparticles and Multifunctional Nanocomposites: Erratum. Theranostics, 2013, 3, 1012-1012.	4.6	3
102	Gold Nanoparticle-Based Technologies in Photothermal/Photodynamic Treatment. , 2018, , 151-173.		3
103	Photoswitchable Spasers with a Plasmonic Core and Photoswitchable Fluorescent Proteins. Scientific Reports, 2019, 9, 12439.	1.6	3
104	<title>Gold nanoparticle sizing based on differential static light scattering spectroscopy, absorption spectroscopy, and dynamic light scattering</title> . , 2004, , .		2
105	Influence of gold nanoparticles on platelets functional activity in vitro. Proceedings of SPIE, 2008, , .	0.8	2
106	Morphological study of the internal organs in rats with alloxan diabetes and transplanted liver tumor after intravenous injection of gold nanorods. Russian Open Medical Journal, 2014, 3, 0301.	0.1	2
107	Alterations of morphology of lymphoid organs and peripheral blood indicators under the influence of gold nanoparticles in rats. Journal of Innovative Optical Health Sciences, 2016, 09, 1640004.	0.5	2
108	Cell culture surfaces with immobilized gold nanostars: a new approach for laser-induced plasmonic cell optoporation. , 2017, , .		2

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109	Tumor Phantom with Incorporated SERS Tags: Detectability in a Turbid Medium. Photonics, 2021, 8, 144.	0.9	2
110	Citrate-reduced Au nanoparticles vs. monodisperse spheres: extinction and dynamic light scattering measurements. , 2019, , .		2
111	SERS Platform Based on Hollow-Core Microstructured Optical Fiber: Technology of UV-Mediated Gold Nanoparticle Growth. Biosensors, 2022, 12, 19.	2.3	2
112	<title>Structure of insoluble immune complexes as studied by spectroturbidimetry and dynamic light scattering</title> . , 2004, 5475, 26.		1
113	<title>Plasmon resonance of gold nanoshells: sensitivity to the local dielectric environment</title> . , 2006, , .		1
114	<title>Optimization of gold nanostructers for laser killing of cancer cells</title> ., 2006, , .		1
115	<title>Multipole plasmons in gold nanorods: scaling properties and dependence on the particle size, shape, orientation, and dielectric environment</title> . , 2007, , .		1
116	<title>Gold nanoshells as solid-phase dot assay labels</title> . Proceedings of SPIE, 2007, , .	0.8	1
117	The assesment of effectiveness of plasmonic resonance photothermal therapy in tumor-bearing rats after multiple intravenous administration of gold nanorods. Proceedings of SPIE, 2017, , .	0.8	1
118	The effects of prolonged oral administration of gold nanoparticles on the morphology of hematopoietic and lymphoid organs. , 2017, , .		1
119	A novel centrifuge-based approach for tunable 2D layering of plasmonic nanoparticles. , 2019, , .		1
120	SERS response from gold nanorods and dumbbells. , 2020, , .		1
121	SERS and Indicator Paper Sensing of Hydrogen Peroxide Using Au@Ag Nanorods. Sensors, 2022, 22, 3202.	2.1	1
122	<title>Liposomes by quasielastic light scattering and spectroturbidimetry</title> ., 2002, 4707, 261.		0
123	Computer simulation and experimental study of the polysaccharide-polysaccharide interaction in the bacteria Azospirillum brasilense Sp245. , 2003, , .		0
124	<title>Handling of nanoparticles with light pressure forces</title> . , 2007, 6536, 79.		0
125	Three-dimensional dynamics of temperature fields in phantoms and biotissue under IR laser photothermal therapy using gold nanoparticles and ICG dye. , 2010, , .		0
126	Optical microscopy for nanoparticles temperature and velocity field visualization. , 2010, , .		0

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127	The reversibility of morphological changes in the mesenteric lymph nodes after peroral administration of gold nanoparticles. Proceedings of SPIE, 2014, , .	0.8	0
128	Evaluation of lipid peroxidation activity at intravenous administration of gold nanorods in rats with simulated diabetes and transplanted liver cancer. , 2014, , .		0
129	Freeze-dried polymer-coated quantum dots for perspective biomedical application. , 2015, , .		0
130	The study of indicators of bone marrow and peripheral blood of rats with diabetes and transplanted liver tumor after intravenous injection of gold nanorods. , 2015, , .		0
131	Surface-enhanced Raman scattering from 4-aminothiophenol molecules embedded inside Ag coated gold nanorods. , 2016, , .		0
132	Optical properties of monodisperse gold nanoshells on silica cores. , 2016, , .		0
133	The morphological changes in transplanted tumors in rats at plasmonic photothermal therapy. Proceedings of SPIE, 2016, , .	0.8	0
134	The morphological changes in the internal organs of laboratory animals after prolonged oral administration of gold nanoparticles. Journal of Innovative Optical Health Sciences, 2016, 09, 1642004.	0.5	0
135	Bovine serum albumin nanoparticles loaded with Photosens photosensitizer for effective photodynamic therapy. Proceedings of SPIE, 2017, , .	0.8	0
136	The inflammation markers in serum of tumor-bearing rats after plasmonic photothermal therapy. , 2018, , .		0
137	Layer-by-layer polyelectrolyte coating for surface-enhanced Raman scattering on gold nanostars inside hollow core photonic crystal fibers. , 2018, , .		0
138	Cytotoxicity evaluation of gold nanoparticles on microalga Dunaliella salina in microplate test system. , 2018, , .		0
139	Optical properties of polydopamine-coated Au nanorods. , 2019, , .		0
140	Synthesis and SERS properties of Au@Au and Au@Ag nanomatryoshkas with embedded reporters. , 2019, , .		0
141	SERS response from gap-enhanced Raman tags as a function of the shell thickness. , 2020, , .		0
142	New materials for laser welding of connective tissue and controlled release of antimicrobial principles. , 2020, , .		0
143	Au@NBT@Ag tags with different thickness of the metallic shell: synthesis and SERS properties. , 2020, ,		0
144	Plasmonic nanoparticles as contrast agents for photoacoustics: strategies to improve their photostability. , 2021, , .		0

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