

# Rodolphe Antoine

## List of Publications by Year in descending order

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134  
papers

3,939  
citations

117571

34  
h-index

168321

53  
g-index

140  
all docs

140  
docs citations

140  
times ranked

4101  
citing authors

#	ARTICLE	IF	CITATIONS
1	Insights into the Impact of Gold Nanoclusters Au <sub>10</sub> SG <sub>10</sub> on Human Microglia. ACS Chemical Neuroscience, 2022, 13, 464-476.	1.7	7
2	Facile one-pot synthesis of white emitting gold nanocluster solutions composed of red, green and blue emitters. Journal of Materials Chemistry C, 2022, 10, 2263-2270.	2.7	4
3	Self-Assembled Metal Nanoclusters: Driving Forces and Structural Correlation with Optical Properties. Nanomaterials, 2022, 12, 544.	1.9	29
4	Regulation of Silver Nanoclusters with 4 Orders of Magnitude Variation of Fluorescence Lifetimes with Solvent-Induced Noncovalent Interaction. Journal of Physical Chemistry C, 2022, 126, 5198-5205.	1.5	6
5	Open questions on proteins interacting with nanoclusters. Communications Chemistry, 2022, 5, .	2.0	10
6	Controlling the Chemistry of Nanoclusters: From Atomic Precision to Controlled Assembly. Nanomaterials, 2022, 12, 62.	1.9	8
7	Random lasing in rhodamine 6G dye - Kaolinite nanoclay colloids under single shot nanosecond pumping. Optical Materials, 2022, 129, 112408.	1.7	5
8	Charge detection mass spectrometry on human-amplified fibrils from different synucleinopathies. Chemical Communications, 2022, 58, 7192-7195.	2.2	1
9	Metal-Organic frameworks encapsulated Ag Nanoparticle-Nanoclusters with enhanced luminescence for simultaneous detection and removal of Chromium(VI). Microchemical Journal, 2022, 181, 107722.	2.3	7
10	Tailoring the NIR-Photoluminescence of Single Thiolated Au <sub>25</sub> Nanoclusters by Selective Binding to Proteins**. Chemistry - A European Journal, 2022, 28, .	1.7	13
11	Polymer- and dendrimer-protected metal nanoclusters. , 2022, , 223-249.		0
12	Recent progress and prospects of random lasers using advanced materials. Materials Advances, 2022, 3, 6687-6706.	2.6	13
13	Cover Feature: Tailoring the NIR-Photoluminescence of Single Thiolated Au <sub>25</sub> Nanoclusters by Selective Binding to Proteins (Chem. Eur. J. 39/2022). Chemistry - A European Journal, 2022, 28, .	1.7	0
14	Current Status and Perspectives of Protease Inhibitors and Their Combination with Nanosized Drug Delivery Systems for Targeted Cancer Therapy. Drug Design, Development and Therapy, 2021, Volume 15, 9-20.	2.0	31
15	Size and ligand effects of gold nanoclusters in alteration of organellar state and translocation of transcription factors in human primary astrocytes. Nanoscale, 2021, 13, 3173-3183.	2.8	11
16	Four orders-of-magnitude enhancement in the two-photon excited photoluminescence of homoleptic gold thiolate nanoclusters following zinc ion-induced aggregation. Nanoscale, 2021, 13, 4439-4443.	2.8	19
17	Fabrication of Silver-Decorated Graphene Oxide Nanohybrids via Pulsed Laser Ablation with Excellent Antimicrobial and Optical Limiting Performance. Nanomaterials, 2021, 11, 880.	1.9	19
18	Functionalized Au <sub>15</sub> nanoclusters as luminescent probes for protein carbonylation detection. Communications Chemistry, 2021, 4, .	2.0	16

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19	Photoluminescence of Fully Inorganic Colloidal Gold Nanocluster and Their Manipulation Using Surface Charge Effects. <i>Advanced Materials</i> , 2021, 33, e2101549.	11.1	21
20	Phenyl argentate aggregates $[Ag_nPh_{n+1}]^+$ ( $n = 2-8$ ): Models for the self-assembly of atom-precise polynuclear organometallics. <i>Journal of Chemical Physics</i> , 2021, 154, 224301.	1.2	3
21	Nanotechnology in Tumor Biomarker Detection: The Potential of Liganded Nanoclusters as Nonlinear Optical Contrast Agents for Molecular Diagnostics of Cancer. <i>Cancers</i> , 2021, 13, 4206.	1.7	27
22	The emergence of mass spectrometry for characterizing nanomaterials. Atomically precise nanoclusters and beyond. <i>Materials Advances</i> , 2021, 2, 4896-4913.	2.6	23
23	Weighing synthetic polymers of ultra-high molar mass and polymeric nanomaterials: What can we learn from charge detection mass spectrometry?. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8539.	0.7	19
24	Gold nanoclusters elicit homeostatic perturbations in glioblastoma cells and adaptive changes of lysosomes. <i>Theranostics</i> , 2020, 10, 1633-1648.	4.6	21
25	Rationale Strategy to Tune the Optical Properties of Gold Catenane Nanoclusters by Doping with Silver Atoms. <i>Journal of Physical Chemistry C</i> , 2020, 124, 19368-19374.	1.5	7
26	Structure and Charge Heterogeneity in Isomeric $Au_{25}(MBA)_{18}$ Nanoclusters—Insights from Ion Mobility and Mass Spectrometry. <i>Journal of Physical Chemistry A</i> , 2020, 124, 5840-5848.	1.1	14
27	Templating S100A9 amyloids on $\beta$ fibrillar surfaces revealed by charge detection mass spectrometry, microscopy, kinetic and microfluidic analyses. <i>Chemical Science</i> , 2020, 11, 7031-7039.	3.7	20
28	Supramolecular Gold Chemistry: From Atomically Precise Thiolate-Protected Gold Nanoclusters to Gold-Thiolate Nanostructures. <i>Nanomaterials</i> , 2020, 10, 377.	1.9	16
29	Second harmonic scattering from mass characterized 2D graphene oxide sheets. <i>Chemical Communications</i> , 2020, 56, 3859-3862.	2.2	20
30	Covalent anchoring of atomically precise glutathione-protected gold nanoclusters on graphene oxide nanosheets. <i>Nano Express</i> , 2020, 1, 030005.	1.2	5
31	Direct determination of molecular weight distribution of calf-thymus DNAs and study of their fragmentation under ultrasonic and low-energy infrared irradiations. A charge detection mass spectrometry investigation. <i>Rapid Communications in Mass Spectrometry</i> , 2019, 33, 35-39.	0.7	6
32	Ion mobility resolved photo-fragmentation to discriminate protomers. <i>Rapid Communications in Mass Spectrometry</i> , 2019, 33, 28-34.	0.7	6
33	Influence of the Spatial Conformation of Charged Ligands on the Optical Properties of Gold Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26705-26717.	1.5	15
34	In Situ Decoration of Gold Nanoparticles on Graphene Oxide via Nanosecond Laser Ablation for Remarkable Chemical Sensing and Catalysis. <i>Nanomaterials</i> , 2019, 9, 1201.	1.9	30
35	Organotypic and primary neural cultures as models to assess effects of different gold nanostructures on glia and neurons. <i>Nanotoxicology</i> , 2019, 13, 285-304.	1.6	13
36	High photoluminescence of shortwave infrared-emitting anisotropic surface charged gold nanoclusters. <i>Nanoscale</i> , 2019, 11, 12092-12096.	2.8	44

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37	Enhanced two-photon absorption of ligated silver and gold nanoclusters: theoretical and experimental assessments. <i>Nanoscale</i> , 2019, 11, 12436-12448.	2.8	54
38	Gold nanoclusters as a contrast agent for image-guided surgery of head and neck tumors. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019, 20, 102011.	1.7	29
39	Sub-100 nanometer silver doped gold-cysteine supramolecular assemblies with enhanced nonlinear optical properties. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 12091-12099.	1.3	17
40	Catenane Structures of Homoleptic Thioglycolic Acid-Protected Gold Nanoclusters Evidenced by Ion Mobility-Mass Spectrometry and DFT Calculations. <i>Nanomaterials</i> , 2019, 9, 457.	1.9	12
41	Ligand shell size effects on one- and two-photon excitation fluorescence of zwitterion functionalized gold nanoclusters. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 23916-23921.	1.3	24
42	Ligand-Core NLO-Phores. <i>Challenges and Advances in Computational Chemistry and Physics</i> , 2019, , 139-160.	0.6	2
43	Bulky Counterions: Enhancing the Two-Photon Excited Fluorescence of Gold Nanoclusters. <i>ChemPhysChem</i> , 2018, 19, 164-164.	1.0	0
44	pH-Induced transformation of ligated Au <sub>25</sub> to brighter Au <sub>23</sub> nanoclusters. <i>Nanoscale</i> , 2018, 10, 11335-11341.	2.8	39
45	Infrared laser dissociation of single megadalton polymer ions in a gated electrostatic ion trap: the added value of statistical analysis of individual events. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 11959-11966.	1.3	10
46	Mass and charge distributions of amyloid fibers involved in neurodegenerative diseases: mapping heterogeneity and polymorphism. <i>Chemical Science</i> , 2018, 9, 2791-2796.	3.7	26
47	Sizing protein-templated gold nanoclusters by time resolved fluorescence anisotropy decay measurements. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 193, 283-288.	2.0	21
48	Bulky Counterions: Enhancing the Two-Photon Excited Fluorescence of Gold Nanoclusters. <i>ChemPhysChem</i> , 2018, 19, 165-168.	1.0	25
49	Isomeric Effect of Mercaptobenzoic Acids on the Synthesis, Stability, and Optical Properties of Au <sub>25</sub> (MBA) <sub>18</sub> Nanoclusters. <i>ACS Omega</i> , 2018, 3, 15635-15642.	1.6	42
50	Structural insights into glutathione-protected gold Au <sub>10</sub> (SG) <sub>12</sub> nanoclusters revealed by ion mobility mass spectrometry. <i>European Physical Journal D</i> , 2018, 72, 1.	0.6	13
51	High fidelity visualization of multiscale dynamics of laser-induced bubbles in liquids containing gold nanoparticles. <i>Scientific Reports</i> , 2018, 8, 9665.	1.6	24
52	One-pot direct synthesis for multifunctional ultrasmall hybrid silica nanoparticles. <i>Journal of Materials Chemistry B</i> , 2018, 6, 4821-4834.	2.9	4
53	Nonlinear Refraction and Absorption of Ag <sub>29</sub> Nanoclusters: Evidence for Two-Photon Absorption Saturation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18682-18689.	1.5	18
54	Selected Studied Cases. <i>SpringerBriefs in Materials</i> , 2018, , 63-75.	0.1	0



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73	Tuning the architectural integrity of high-performance magneto-fluorescent core-shell nanoassemblies in cancer cells. <i>Journal of Colloid and Interface Science</i> , 2016, 479, 139-149.	5.0	17
74	Mass Determination of Entire Amyloid Fibrils by Using Mass Spectrometry. <i>Angewandte Chemie</i> , 2016, 128, 2386-2390.	1.6	12
75	Tuning Ag <sub>29</sub> nanocluster light emission from red to blue with one and two-photon excitation. <i>Nanoscale</i> , 2016, 8, 2892-2898.	2.8	75
76	Two-photon absorption of ligand-protected Ag <sub>15</sub> nanoclusters. Towards a new class of nonlinear optics nanomaterials. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 12404-12408.	1.3	31
77	Coupling of size-exclusion chromatography with electrospray ionization charge-detection mass spectrometry for the characterization of synthetic polymers of ultra-high molar mass. <i>Rapid Communications in Mass Spectrometry</i> , 2016, 30, 132-136.	0.7	16
78	The structure of chromophore-grafted amyloid- $\beta$ <sub>12-28</sub> dimers in the gas-phase: FRET-experiment guided modelling. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9061-9069.	1.3	12
79	Charge, Color, and Conformation: Spectroscopy on Isomer-Selected Peptide Ions. <i>Journal of Physical Chemistry B</i> , 2016, 120, 709-714.	1.2	17
80	Structural exploration and FRET theory modeling for the interpretation of gas-phase FRET measurements: Chromophore-grafted amyloid- $\beta$ peptides. <i>Journal of Chemical Physics</i> , 2015, 143, 025101.	1.2	16
81	Conformational changes in amyloid-beta ( $\beta$ <sub>12-28</sub> ) alloforms studied using action-FRET, IMS and molecular dynamics simulations. <i>Chemical Science</i> , 2015, 6, 5040-5047.	3.7	37
82	Multiphoton Dissociation of Electrosprayed MegaDalton-Sized DNA Ions in a Charge-Detection Mass Spectrometer. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 7-13.	1.2	15
83	Charge Detection Mass Spectrometry for the Characterization of Mass and Surface Area of Composite Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10844-10849.	1.5	51
84	Testing the Vesicular Morphology to Destruction: Birth and Death of Diblock Copolymer Vesicles Prepared via Polymerization-Induced Self-Assembly. <i>Journal of the American Chemical Society</i> , 2015, 137, 1929-1937.	6.6	168
85	Synthesis of ligated-metal species by laser vaporization electrospray ionization (LAVESI). <i>International Journal of Mass Spectrometry</i> , 2015, 387, 45-50.	0.7	3
86	Correlating Droplet Size with Temperature Changes in Electrospray Source by Optical Methods. <i>Analytical Chemistry</i> , 2015, 87, 8210-8217.	3.2	34
87	Towards a one-step method for preparing silica/polymer heterodimers and dimpled polymer particles. <i>Polymer</i> , 2015, 70, 118-126.	1.8	12
88	Gas-phase VUV photoionisation and photofragmentation of the silver deuteride nanocluster [Ag <sub>10</sub> D <sub>8</sub> L <sub>6</sub> ] <sup>2+</sup> (L = bis(diphenylphosphino)methane). A joint experimental and theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 25772-25777.	1.3	25
89	Visible and Ultraviolet Spectroscopy of Gas Phase Rhodamine 575 Cations. <i>Journal of Physical Chemistry A</i> , 2015, 119, 5634-5641.	1.1	14
90	Long-Term <i>in Vivo</i> Clearance of Gadolinium-Based AGuX Nanoparticles and Their Biocompatibility after Systemic Injection. <i>ACS Nano</i> , 2015, 9, 2477-2488.	7.3	132

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91	Structural Basis of Protein Oxidation Resistance: A Lysozyme Study. PLoS ONE, 2014, 9, e101642.	1.1	11
92	Effect of Mobile Phase on Electrospray Ionization Efficiency. Journal of the American Society for Mass Spectrometry, 2014, 25, 1853-1861.	1.2	61
93	Electron photodetachment dissociation for structural characterization of synthetic and bio-polymer anions. Mass Spectrometry Reviews, 2014, 33, 501-522.	2.8	29
94	Non-linear optical properties of gold quantum clusters. The smaller the better. Nanoscale, 2014, 6, 13572-13578.	2.8	108
95	The nature of electronic excitations at the metal-bioorganic interface illustrated on histidine-silver hybrids. Physical Chemistry Chemical Physics, 2014, 16, 1257-1261.	1.3	16
96	Action-FRET: Probing the Molecular Conformation of Mass-Selected Gas-Phase Peptides with Förster Resonance Energy Transfer Detected by Acceptor-Specific Fragmentation. Analytical Chemistry, 2014, 86, 8798-8804.	3.2	53
97	Functionalization of Small Rigid Platforms with Cyclic RGD Peptides for Targeting Tumors Overexpressing $\alpha_3\beta_1$ -Integrins. Bioconjugate Chemistry, 2013, 24, 1584-1597.	1.8	49
98	Glutathione capped gold Au (SG) clusters studied by isotope-resolved mass spectrometry. International Journal of Mass Spectrometry, 2013, 335, 1-6.	0.7	46
99	Coupling of HPLC with Electrospray Ionization Mass Spectrometry for Studying the Aging of Ultrasmall Multifunctional Gadolinium-Based Silica Nanoparticles. Analytical Chemistry, 2013, 85, 10440-10447.	3.2	28
100	Correlation between the Charge of Polymer Particles in Solution and in the Gas Phase Investigated by Zeta-Potential Measurements and Electrospray Ionization Mass Spectrometry.. Langmuir, 2013, 29, 14074-14081.	1.6	22
101	Bifunctional polypyridyl-Ru(II) complex grafted onto gadolinium-based nanoparticles for MR-imaging and photodynamic therapy. Dalton Transactions, 2013, 42, 12410.	1.6	32
102	In vivo evidence of the targeting of cartilaginous tissue by pyridinium functionalized nanoparticles. Chemical Communications, 2013, 49, 3046.	2.2	7
103	Development of gadolinium based nanoparticles having an affinity towards melanin. Nanoscale, 2013, 5, 1603.	2.8	23
104	A Top-Down Synthesis Route to Ultrasmall Multifunctional Gd-Based Silica Nanoparticles for Theranostic Applications. Chemistry - A European Journal, 2013, 19, 6122-6136.	1.7	115
105	Multiphoton dissociation of macromolecular ions at the single-molecule level. Physical Review A, 2013, 87, .	1.0	22
106	Formation and characterization of thioglycolic acid-silver cluster complexes. Dalton Transactions, 2013, 42, 8328.	1.6	13
107	The Charging of Micellar Nanoparticles in Electrospray Ionization. ChemPhysChem, 2013, 14, 603-609.	1.0	17
108	Synthesis, characterization and optical properties of low nuclearity liganded silver clusters: Ag <sub>31</sub> (SG) <sub>19</sub> and Ag <sub>15</sub> (SG) <sub>11</sub> . Nanoscale, 2013, 5, 5637.	2.8	83

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109	Binding motifs of silver in prion octarepeat model peptides: a joint ion mobility, IR and UV spectroscopies, and theoretical approach. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 11433.	1.3	28
110	Profiling an electrospray plume by laser-induced fluorescence and Fraunhofer diffraction combined to mass spectrometry: influence of size and composition of droplets on charge-state distributions of electrosprayed proteins. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 9389.	1.3	32
111	Silver cluster-biomolecule hybrids: from basics towards sensors. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 9282.	1.3	51
112	Optical Properties of a Visible Push-Pull Chromophore Covalently Bound to Carbohydrates: Solution and Gas-Phase Spectroscopy Combined to Theoretical Investigations. <i>Journal of Physical Chemistry B</i> , 2012, 116, 841-851.	1.2	5
113	Pushing the Limit of Infrared Multiphoton Dissociation to Megadalton-Size DNA Ions. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2141-2145.	2.1	26
114	Direct Molar Mass Determination of Self-Assembled Amphiphilic Block Copolymer Nanoobjects Using Electrospray-Charge Detection Mass Spectrometry. <i>ACS Macro Letters</i> , 2012, 1, 414-417.	2.3	47
115	Basic Vapor Exposure for Tuning the Charge State Distribution of Proteins in Negative Electrospray Ionization: Elucidation of Mechanisms by Fluorescence Spectroscopy. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 1221-1231.	1.2	12
116	Probing electrostatic interactions and structural changes in highly charged protein polyanions by conformer-selective photoelectron spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 15554.	1.3	25
117	Visible and ultraviolet spectroscopy of gas phase protein ions. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 16494.	1.3	118
118	Structural and Optical Properties of Isolated Noble Metal-Glutathione Complexes: Insight into the Chemistry of Liganded Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2011, 115, 24549-24554.	1.5	34
119	Doubly Charged Silver Clusters Stabilized by Tryptophan: $Ag_4^{2+}$ as an Optical Marker for Monitoring Particle Growth. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 878-881.	7.2	38
120	Relation between charge state distributions of peptide anions and pH changes in the electrospray plume. A mass spectrometry and optical spectroscopy investigation. <i>International Journal of Mass Spectrometry</i> , 2011, 308, 41-48.	0.7	35
121	Charging megadalton poly(ethylene oxide)s by electrospray ionization. A charge detection mass spectrometry study. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 617-623.	0.7	54
122	Ultrasmall Rigid Particles as Multimodal Probes for Medical Applications. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 12299-12303.	7.2	156
123	Infrared multiphoton dissociation tandem charge detection-mass spectrometry of single megadalton electrosprayed ions. <i>Review of Scientific Instruments</i> , 2011, 82, 084104.	0.6	44
124	Combining ion mobility mass spectrometry and infrared multiphoton dissociation spectroscopy to probe the structure of gas-phase vancomycin-Ac2LKDADA non-covalent complex. <i>International Journal of Mass Spectrometry</i> , 2010, 297, 28-35.	0.7	22
125	Conformation of Polyalanine and Polyglycine Dications in the Gas Phase: Insight from Ion Mobility Spectrometry and Replica-Exchange Molecular Dynamics. <i>Journal of Physical Chemistry A</i> , 2010, 114, 6888-6896.	1.1	43
126	Electron Emission of Gas-Phase $[Au_{25}(SG)_{18}-6H]^{7+}$ Gold Cluster and Its Action Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 3189-3194.	2.1	41



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127	Gas-Phase Synthesis and Intense Visible Absorption of Tryptophan-Gold Cations. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 7829-7832.	7.2	20
128	Activated-Electron Photodetachment Dissociation for the Structural Characterization of Protein Polyaniions. <i>Analytical Chemistry</i> , 2009, 81, 8410-8416.	3.2	66
129	Absorption Enhancement and Conformational Control of Peptides by Small Silver Clusters. <i>Physical Review Letters</i> , 2008, 101, 213001.	2.9	50
130	Optical Properties of Gas-Phase Tryptophan-Silver Cations: Charge Transfer from the Indole Ring to the Silver Atom. <i>ChemPhysChem</i> , 2006, 7, 524-528.	1.0	29
131	Spectroscopy of isolated, mass-selected tryptophan-Ag <sub>3</sub> complexes: A model for photoabsorption enhancement in nanoparticle-biomolecule hybrid systems. <i>Journal of Chemical Physics</i> , 2006, 125, 164326.	1.2	34
132	Size dependence of the surface plasmon enhanced second harmonic response of gold colloids: towards a new calibration method. <i>Chemical Communications</i> , 1999, , 581-582.	2.2	47
133	Surface plasmon enhanced non-linear optical response of gold nanoparticles at the air/toluene interface. <i>Chemical Communications</i> , 1997, , 1901.	2.2	77
134	Atomically precise clusters of gold and silver: A new class of nonlinear optical nanomaterials. , 0, 1, 1001.		10