Michel Orrit

List of Publications by Year
in descending order

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		53660	33814
143	10,258	45	99
papers	citations	h-index	g-index

154	154	154	9642
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Illuminating Single Molecules in Condensed Matter. Science, 1999, 283, 1670-1676.	6.0	1,071
2	Photothermal Imaging of Nanometer-Sized Metal Particles Among Scatterers. Science, 2002, 297, 1160-1163.	6.0	905
3	Single-photon sources. Reports on Progress in Physics, 2005, 68, 1129-1179.	8.1	728
4	Optical detection of single non-absorbing molecules using the surface plasmon resonance of a gold nanorod. Nature Nanotechnology, 2012, 7, 379-382.	15.6	674
5	Triggered Source of Single Photons based on Controlled Single Molecule Fluorescence. Physical Review Letters, 1999, 83, 2722-2725.	2.9	396
6	Third-Harmonic Generation from Single Gold Nanoparticles. Nano Letters, 2005, 5, 799-802.	4.5	338
7	Simple model for the power-law blinking of single semiconductor nanocrystals. Physical Review B, 2002, 66, .	1.1	305
8	Photoblinking of Rhodamine 6G in Poly(vinyl alcohol):â€‰ Radical Dark State Formed through the Triplet. Journal of Physical Chemistry A, 2003, 107, 6770-6776.	1.1	248
9	Resonant Plasmonic Enhancement of Single-Molecule Fluorescence by Individual Gold Nanorods. ACS Nano, 2014, 8, 4440-4449.	7.3	248
10	SINGLE-MOLECULE OPTICS. Annual Review of Physical Chemistry, 2004, 55, 585-611.	4.8	233
11	Detection of Acoustic Oscillations of Single Gold Nanospheres by Time-Resolved Interferometry. Physical Review Letters, 2005, 95, 267406.	2.9	202
12	Photobleaching of Rhodamine 6G in Poly(vinyl alcohol) at the Ensemble and Single-Molecule Levels. Journal of Physical Chemistry A, 2004, 108, 1657-1665.	1.1	200
13	Reflection and transmission of light by dye monolayers. Journal of Chemical Physics, 1986, 85, 4966-4979.	1.2	193
14	Detection limits in photothermal microscopy. Chemical Science, 2010, 1, 343.	3.7	189
15	Luminescence Quantum Yield of Single Gold Nanorods. Nano Letters, 2012, 12, 4385-4391.	4.5	183
16	Thousandâ€fold Enhancement of Singleâ€Molecule Fluorescence Near a Single Gold Nanorod. Angewandte Chemie - International Edition, 2013, 52, 1217-1221.	7.2	169
17	Acoustic Oscillations and Elastic Moduli of Single Gold Nanorods. Nano Letters, 2008, 8, 3493-3497.	4.5	165
18	Damping of Acoustic Vibrations of Single Gold Nanoparticles Optically Trapped in Water. Nano Letters, 2012, 12, 1063-1069.	4.5	148

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19	Probing individual two-level systems in a polymer by correlation of single molecule fluorescence. Physical Review Letters, 1993, 70, 3584-3587.	2.9	147
20	Local viscosity of supercooled glycerol near Tg probed by rotational diffusion of ensembles and single dye molecules. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12628-12633.	3.3	136
21	Statistical Evaluation of Single Nano-Object Fluorescence. ChemPhysChem, 2005, 6, 770-789.	1.0	129
22	Far-Field Optical Microscopy of Single Metal Nanoparticles. Accounts of Chemical Research, 2005, 38, 594-601.	7.6	124
23	Photon statistics in the fluorescence of single molecules and nanocrystals: Correlation functions versus distributions of on- and off-times. Journal of Chemical Physics, 2003, 119, 2214-2222.	1.2	122
24	Gold Nanoparticles as Absolute Nanothermometers. Nano Letters, 2018, 18, 874-880.	4.5	117
25	Chemical Interface Damping in Single Gold Nanorods and Its Near Elimination by Tipâ€Specific Functionalization. Angewandte Chemie - International Edition, 2012, 51, 8352-8355.	7.2	115
26	Fast, Label-Free Tracking of Single Viruses and Weakly Scattering Nanoparticles in a Nanofluidic Optical Fiber. ACS Nano, 2015, 9, 12349-12357.	7.3	112
27	Photothermal Microscopy: Imaging the Optical Absorption of Single Nanoparticles and Single Molecules. ACS Nano, 2020, 14, 16414-16445.	7.3	93
28	Damping of Acoustic Vibrations of Immobilized Single Gold Nanorods in Different Environments. Nano Letters, 2013, 13, 2710-2716.	4.5	92
29	Single Molecules as Optical Nanoprobes for Soft and Complex Matter. Angewandte Chemie - International Edition, 2010, 49, 854-866.	7.2	82
30	Explosive formation and dynamics of vapor nanobubbles around a continuously heated gold nanosphere. New Journal of Physics, 2015, 17, 013050.	1.2	80
31	Single-molecule photophysics, from cryogenic to ambient conditions. Chemical Society Reviews, 2014, 43, 1029-1043.	18.7	72
32	Single Dibenzoterrylene Molecules in an Anthracene Crystal: Main Insertion Sites. ChemPhysChem, 2007, 8, 1929-1936.	1.0	65
33	Circular Dichroism Measurement of Single Metal Nanoparticles Using Photothermal Imaging. Nano Letters, 2019, 19, 8934-8940.	4.5	64
34	Single Dibenzoterrylene Molecules in an Anthracene Crystal: Spectroscopy and Photophysics. ChemPhysChem, 2007, 8, 1215-1220.	1.0	63
35	Soft glassy rheology of supercooled molecular liquids. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4993-4998.	3.3	63
36	Single-molecule spectroscopy: The road ahead. Journal of Chemical Physics, 2002, 117, 10938-10946.	1.2	62

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37	Super-resolution Localization and Defocused Fluorescence Microscopy on Resonantly Coupled Single-Molecule, Single-Nanorod Hybrids. ACS Nano, 2016, 10, 2455-2466.	7.3	61
38	A Microscopic Model for the Fluctuations of Local Field and Spontaneous Emission of Single Molecules in Disordered Media. ChemPhysChem, 2005, 6, 81-91.	1.0	58
39	Quantum-mechanical-model calculations of radiative properties of a molecular crystal. I. Polaritons and abnormal decays of excitons in one- and two-dimensional systems. Physical Review B, 1982, 25, 7263-7280.	1.1	56
40	Correlated Absorption and Photoluminescence of Single Gold Nanoparticles. ChemPhysChem, 2011, 12, 1536-1541.	1.0	53
41	Single-molecule optical spectroscopy. Chemical Society Reviews, 2014, 43, 973.	18.7	52
42	Photothermal Correlation Spectroscopy of Gold Nanoparticles in Solution. Journal of Physical Chemistry C, 2009, 113, 11451-11457.	1.5	51
43	Orientation of chromophores in monolayers determined from the reflection or transmission of polarized light. Thin Solid Films, 1985, 132, 41-53.	0.8	48
44	Acoustic and Optical Modes of Single Dumbbells of Gold Nanoparticles. ChemPhysChem, 2009, 10, 111-114.	1.0	48
45	Making gold nanoparticles fluorescent for simultaneous absorption and fluorescence detection on the single particle level. Physical Chemistry Chemical Physics, 2011, 13, 149-153.	1.3	47
46	A common-path interferometer for time-resolved and shot-noise-limited detection of single nanoparticles. Optics Express, 2007, 15, 2273.	1.7	44
47	Plasmonic Enhancement of Two-Photon-Excited Luminescence of Single Quantum Dots by Individual Gold Nanorods. ACS Photonics, 2018, 5, 2960-2968.	3.2	44
48	Probing Silver Deposition on Single Gold Nanorods by Their Acoustic Vibrations. Nano Letters, 2014, 14, 915-922.	4.5	43
49	Gold Nanorod Enhanced Fluorescence Enables Singleâ€Molecule Electrochemistry of Methylene Blue. Angewandte Chemie - International Edition, 2017, 56, 3566-3569.	7.2	43
50	Laser-Driven Microsecond Temperature Cycles Analyzed by Fluorescence Polarization Microscopy. Biophysical Journal, 2006, 90, 2958-2969.	0.2	40
51	Single Molecule as a Local Acoustic Detector for Mechanical Oscillators. Physical Review Letters, 2014, 113, 135505.	2.9	40
52	Absorption and Quantum Yield of Single Conjugated Polymer Poly[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylenevinylene] (MEH-PPV) Molecules. Nano Letters, 2017, 17, 1575-1581.	4.5	39
53	Toward Single-Molecule Microscopy on a Smart Phone. ACS Nano, 2013, 7, 8340-8343.	7.3	36
54	Chemical and physical aspects of charge transfer in the fluorescence intermittency of single molecules and quantum dots. Photochemical and Photobiological Sciences, 2010, 9, 637-642.	1.6	34

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55	Tip-Specific Functionalization of Gold Nanorods for Plasmonic Biosensing: Effect of Linker Chain Length. Langmuir, 2017, 33, 6503-6510.	1.6	33
56	Probing local currents in semiconductors with single molecules. Physical Review B, 2001, 64, .	1.1	30
57	Photon Statistics in Single Molecule Experiments. Single Molecules, 2002, 3, 255-265.	1.7	30
58	New design of a cryostat-mounted scanning near-field optical microscope for single molecule spectroscopy. Review of Scientific Instruments, 1999, 70, 1318-1325.	0.6	29
59	Towards nanoprobes for conduction in molecular crystals: Dibenzoterrylene in anthracene crystals. Chemical Physics, 2005, 318, 1-6.	0.9	29
60	Hundreds-fold Sensitivity Enhancement of Photothermal Microscopy in Near-Critical Xenon. Journal of Physical Chemistry Letters, 2016, 7, 2524-2529.	2.1	28
61	Surface and Bulk Spectroscopy of A Molecular Crystal: Effect of Relaxation and Thermal or Static Disorder. Advances in Chemical Physics, 2007, , 1-253.	0.3	26
62	Rotational diffusion and alignment of short gold nanorods in an external electric field. Physical Chemistry Chemical Physics, 2012, 14, 4584.	1.3	26
63	Gold-Nanorod-Enhanced Fluorescence Correlation Spectroscopy of Fluorophores with High Quantum Yield in Lipid Bilayers. Journal of Physical Chemistry C, 2016, 120, 25996-26003.	1.5	25
64	Matrixâ€induced Linear Stark Effect of Single Dibenzoterrylene Molecules in 2,3â€Dibromonaphthalene Crystal. ChemPhysChem, 2019, 20, 55-61.	1.0	25
65	Hole burning on an ionic dye in a Langmuir-Blodgett monolayer. Chemical Physics Letters, 1989, 156, 233-239.	1.2	24
66	Quantum Yield Limits for the Detection of Single-Molecule Fluorescence Enhancement by a Gold Nanorod. ACS Photonics, 2020, 7, 2498-2505.	3.2	23
67	Celebrating optical nanoscopy. Nature Photonics, 2014, 8, 887-888.	15.6	22
68	Enhanced-fluorescence correlation spectroscopy at micro-molar dye concentration around a single gold nanorod. Physical Chemistry Chemical Physics, 2015, 17, 21127-21132.	1.3	21
69	Effective Electron Temperature Measurement Using Time-Resolved Anti-Stokes Photoluminescence. Journal of Physical Chemistry A, 2020, 124, 6968-6976.	1.1	21
70	Photothermal Detection of Individual Gold Nanoparticles: Perspectives for Highâ€Throughput Screening. ChemPhysChem, 2008, 9, 1761-1766.	1.0	20
71	In situ tuning of gold nanorod plasmon through oxidative cyanide etching. Physical Chemistry Chemical Physics, 2016, 18, 15619-15624.	1.3	20
72	Single-molecule fluorescence enhancement of a near-infrared dye by gold nanorods using DNA transient binding. Physical Chemistry Chemical Physics, 2018, 20, 20468-20475.	1.3	20

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73	CHEMISTRY: The Motions of an Enzyme Soloist. Science, 2003, 302, 239-240.	6.0	19
74	Photons pushed together. Nature, 2009, 460, 42-44.	13.7	19
75	Laser-Induced Frequency Tuning of Fourier-Limited Single-Molecule Emitters. ACS Nano, 2020, 14, 13584-13592.	7.3	19
76	Communication: Crystallite nucleation in supercooled glycerol near the glass transition. Journal of Chemical Physics, 2012, 136, 041102.	1.2	18
77	Single electron transfer events and dynamical heterogeneity in the small protein azurin from Pseudomonas aeruginosa. Chemical Science, 2020, 11, 763-771.	3.7	18
78	Temperature-cycle single-molecule FRET microscopy on polyprolines. Physical Chemistry Chemical Physics, 2011, 13, 1762-1769.	1.3	17
79	Understanding Localâ€Field Correction Factors in the Framework of the Onsagerâ˜BÃ¶ttcher Model. ChemPhysChem, 2019, 20, 345-355.	1.0	17
80	Background Suppression in Imaging Gold Nanorods through Detection of Anti-Stokes Emission. Biophysical Journal, 2016, 111, 2492-2499.	0.2	16
81	Explosive, oscillatory, and Leidenfrost boiling at the nanoscale. Physical Review E, 2019, 99, 063110.	0.8	16
82	Photothermal Circular Dichroism of Single Nanoparticles Rejecting Linear Dichroism by Dual Modulation. ACS Nano, 2021, 15, 16277-16285.	7.3	16
83	Progress and perspectives in single-molecule optical spectroscopy. Journal of Chemical Physics, 2022, 156, 160903.	1.2	16
84	Quantum light switch. Nature Physics, 2007, 3, 755-756.	6.5	15
85	Towards a Molecular View of Glass Heterogeneity. Angewandte Chemie - International Edition, 2013, 52, 163-166.	7.2	15
86	Probing, Sensing, and Fluorescence Enhancement with Single Gold Nanorods. Journal of Physical Chemistry Letters, 2014, 5, 3000-3006.	2.1	15
87	Gold Nanorod Enhanced Fluorescence Enables Single-Molecule Electrochemistry of Methylene Blue. Angewandte Chemie, 2017, 129, 3620-3623.	1.6	15
88	Nonfluorescent Optical Probing of Single Molecules and Nanoparticles. Journal of Physical Chemistry C, 2019, 123, 14107-14117.	1.5	15
89	Absorption, Luminescence, and Sizing of Organic Dye Nanoparticles and of Patterns Formed Upon Dewetting. ChemPhysChem, 2012, 13, 946-951.	1.0	14
90	Quantum optics, molecular spectroscopy and low-temperature spectroscopy: general discussion. Faraday Discussions, 2015, 184, 275-303.	1.6	13

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91	Label-Free Plasmonic Detection of Untethered Nanometer-Sized Brownian Particles. ACS Nano, 2020, 14, 14212-14218.	7.3	13
92	SINGLE MOLECULES: Molecular Entanglements. Science, 2002, 298, 369-370.	6.0	12
93	Individual gold nanorods report on dynamical heterogeneity in supercooled glycerol. Faraday Discussions, 2013, 167, 515.	1.6	12
94	High-Resolution Single-Molecule Spectroscopy. , 2011, , 381-417.		12
95	Imaging single metal nanoparticles in scattering media by photothermal interference contrast. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 537-540.	1.3	11
96	Spectral Diffusion of Single Dibenzoterrylene Molecules in 2,3â€Dimethylanthracene. ChemPhysChem, 2012, 13, 3510-3515.	1.0	11
97	Optical tracing of multiple charges in single-electron devices. Physical Review B, 2014, 90, .	1.1	11
98	Stable Singleâ€Molecule Lines of Terrylene in Polycrystalline paraâ€Dichlorobenzene at 1.5 K. ChemPhysChem, 2014, 15, 3032-3039.	1.0	11
99	Spectroscopy of Single Dibenzoterrylene Molecules in paraâ€Dichlorobenzene. ChemPhysChem, 2016, 17, 1524-1529.	1.0	11
100	Nanosecond time scale transient optoplasmonic detection of single proteins. Science Advances, 2022, 8, eabl5576.	4.7	11
101	Micron-Sized Structure in a Thin Glycerol Film Revealed by Fluorescent Probes. Journal of Physical Chemistry B, 2009, 113, 15724-15729.	1.2	10
102	Singleâ€Molecule Chemistry is More than Superresolved Fluorescence Microscopy. Angewandte Chemie - International Edition, 2015, 54, 8004-8005.	7.2	10
103	Dibenzanthanthrene in N-Hexadecane, Dibenzoterrylene in Naphthalene: Two New Systems for Single Molecule Spectroscopy. Molecular Crystals and Liquid Crystals, 1996, 291, 41-44.	0.3	9
104	Investigations of local currents in a semiconductor by single-molecule spectroscopy. Journal of Luminescence, 2002, 98, 1-5.	1.5	9
105	Terrylene in hexadecane revisited: A hole burning study. Journal of Chemical Physics, 2007, 127, 084510.	1.2	9
106	Plasmonics, Tracking and Manipulating, and Living Cells: general discussion. Faraday Discussions, 2015, 184, 451-473.	1.6	9
107	Frequency jitter of a nano-emitter. Nature Photonics, 2010, 4, 667-668.	15.6	7
108	Intersystem crossing rates of single perylene molecules in ortho-dichlorobenzene. Physical Chemistry Chemical Physics, 2016, 18, 17655-17659.	1.3	7

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109	Quantifying fluorescence enhancement for slowly diffusing single molecules in plasmonic near fields. Journal of Chemical Physics, 2018, 148, 123334.	1.2	7
110	Quantum-mechanical-model calculations of radiative properties of a molecular crystal. II. A transition to coherence in the spontaneous emission from disordered two-dimensional excitons. Physical Review B, 1986, 34, 680-685.	1.1	6
111	Steady Light from Quantum Dots, at Last. But How?. ChemPhysChem, 2009, 10, 2383-2385.	1.0	6
112	Optical studies of single metal nanoparticles. Physical Chemistry Chemical Physics, 2013, 15, 4090.	1.3	6
113	Temperature-cycle microscopy reveals single-molecule conformational heterogeneity. Physical Chemistry Chemical Physics, 2015, 17, 6532-6544.	1.3	6
114	Controlled synthesis of gold nanorod dimers with end-to-end configurations. RSC Advances, 2022, 12, 13464-13471.	1.7	6
115	Coherent surface fluorescence versus thermally activated energy transfer to the bulk in the anthracene crystal: Model calculations and some experimental results. Chemical Physics, 1989, 132, 31-39.	0.9	5
116	Metal Nanoparticles for Microscopy and Spectroscopy. , 2014, , 53-98.		5
117	Photothermal Spectro-Microscopy as Benchmark for Optoplasmonic Bio-Detection Assays. Journal of Physical Chemistry C, 2021, 125, 25087-25093.	1.5	5
118	Imaging the Magnetization of Single Magnetite Nanoparticle Clusters via Photothermal Circular Dichroism. Nano Letters, 2022, , .	4.5	5
119	Driving the Bloch vector of a single molecule: towards a triggered single photon source. Comptes Rendus De L'Academie De Sciences - Serie IIb: Mecanique, Physique, Chimie, Astronomie, 1998, 326, 911-918.	0.1	4
120	Four-Level Optical Line Shape of a Single Molecule Coupled to a Single Tunneling Two-Level Systemâ€. Journal of Physical Chemistry B, 2006, 110, 18925-18932.	1.2	4
121	Reaction Pathways from Singleâ€Molecule Trajectories. ChemPhysChem, 2012, 13, 681-683.	1.0	4
122	Single Biomolecules at Cryogenic Temperatures: From Structure to Dynamics. Springer Series in Biophysics, 2008, , 25-51.	0.4	4
123	Reverse Intersystem Crossing of Single Deuterated Perylene Molecules in a Dibenzothiophene Matrix. ChemPhysChem, 2022, 23, .	1.0	4
124	Ultrasensitive detection of local acoustic vibrations at room temperature by plasmon-enhanced single-molecule fluorescence. Nature Communications, 2022, 13, .	5.8	4
125	Design and synthesis of aromatic molecules for probing electric fields at the nanoscale. Faraday Discussions, 2015, 184, 251-262.	1.6	3
126	Reverse Intersystem Crossing of Single Deuterated Perylene Molecules in a Dibenzothiophene Matrix. ChemPhysChem, 2022, 23, e202100890.	1.0	3

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127	Two-Photon-Excited Single-Molecule Fluorescence Enhanced by Gold Nanorod Dimers. Nano Letters, 2022, 22, 4215-4222.	4.5	3
128	Imaging single metal-nanoparticles in cells by photothermal interference contrast. , 2003, , .		2
129	From Langmuirâ€“Blodgett films to single molecules. Colloids and Surfaces B: Biointerfaces, 2009, 74, 396-400.	2.5	2
130	Introductory Address for the Special Issue ofMolecular Physics. Molecular Physics, 2009, 107, 1843-1844.	0.8	2
131	Temperature Cycles Unravel the Dynamics of Single Biomolecules. Biophysical Journal, 2014, 106, 3-4.	0.2	2
132	Far-Field Optical Microscopy of Single Metal Nanoparticles. ChemInform, 2005, 36, no.	0.1	1
133	Editorial: EinzelmolekÃ¼lchemie ist mehr als superauflÃ¶sende Fluoreszenzmikroskopie. Angewandte Chemie, 2015, 127, 8116-8117.	1.6	1
134	Superresolution techniques, biophysics with nanostructures, and fluorescence energy transfer: general discussion. Faraday Discussions, 2015, 184, 143-162.	1.6	1
135	Editorial: Les Houches Spring School on: Optical Spectroscopy and Microscopy of Single Objects. Single Molecules, 2001, 2, 227-228.	1.7	0
136	In Memory of Roman I. Personov. Journal of Luminescence, 2004, 107, 1-3.	1.5	0
137	Fluorescence as the Choice Method for Single-Molecule Detection. Springer Series on Fluorescence, 2007, , 105-113.	0.8	0
138	Background-Suppression in the Detection of Gold Nanoparticles in Cells through Anti-Stokes Photoluminescence. Biophysical Journal, 2016, 110, 486a.	0.2	0
139	Looking back on 28 years of cryogenic single-molecule experiments. EPJ Web of Conferences, 2018, 190, 01002.	0.1	0
140	Single Molecules as Optical Probes for Structure and Dynamics. Springer Series in Chemical Physics, 2010, , 61-76.	0.2	0
141	A Plasmonic Biosensor with Single-Molecule Sensitivity. , 2013, , .		0
142	High-Resolution Single-Molecule Spectroscopy in Condensed Matter. , 2019, , 381-417.		0
143	Single-molecule and -particle spectroscopy in leiden: absorption, scattering and fluorescence. Journal of Optics (United Kingdom), 0, , .	1.0	0