

Michel Orrit

List of Publications by Year in descending order

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143
papers

10,258
citations

53660

45
h-index

33814

99
g-index

154
all docs

154
docs citations

154
times ranked

9642
citing authors

#	ARTICLE	IF	CITATIONS
1	Reverse Intersystem Crossing of Single Deuterated Perylene Molecules in a Dibenzothiophene Matrix. ChemPhysChem, 2022, 23, .	1.0	4
2	Reverse Intersystem Crossing of Single Deuterated Perylene Molecules in a Dibenzothiophene Matrix. ChemPhysChem, 2022, 23, e202100890.	1.0	3
3	Nanosecond time scale transient optoplasmonic detection of single proteins. Science Advances, 2022, 8, eabl5576.	4.7	11
4	Progress and perspectives in single-molecule optical spectroscopy. Journal of Chemical Physics, 2022, 156, 160903.	1.2	16
5	Imaging the Magnetization of Single Magnetite Nanoparticle Clusters via Photothermal Circular Dichroism. Nano Letters, 2022, , .	4.5	5
6	Controlled synthesis of gold nanorod dimers with end-to-end configurations. RSC Advances, 2022, 12, 13464-13471.	1.7	6
7	Two-Photon-Excited Single-Molecule Fluorescence Enhanced by Gold Nanorod Dimers. Nano Letters, 2022, 22, 4215-4222.	4.5	3
8	Ultrasensitive detection of local acoustic vibrations at room temperature by plasmon-enhanced single-molecule fluorescence. Nature Communications, 2022, 13, .	5.8	4
9	Photothermal Circular Dichroism of Single Nanoparticles Rejecting Linear Dichroism by Dual Modulation. ACS Nano, 2021, 15, 16277-16285.	7.3	16
10	Photothermal Spectro-Microscopy as Benchmark for Optoplasmonic Bio-Detection Assays. Journal of Physical Chemistry C, 2021, 125, 25087-25093.	1.5	5
11	Single electron transfer events and dynamical heterogeneity in the small protein azurin from <i>Pseudomonas aeruginosa</i> . Chemical Science, 2020, 11, 763-771.	3.7	18
12	Label-Free Plasmonic Detection of Untethered Nanometer-Sized Brownian Particles. ACS Nano, 2020, 14, 14212-14218.	7.3	13
13	Photothermal Microscopy: Imaging the Optical Absorption of Single Nanoparticles and Single Molecules. ACS Nano, 2020, 14, 16414-16445.	7.3	93
14	Effective Electron Temperature Measurement Using Time-Resolved Anti-Stokes Photoluminescence. Journal of Physical Chemistry A, 2020, 124, 6968-6976.	1.1	21
15	Quantum Yield Limits for the Detection of Single-Molecule Fluorescence Enhancement by a Gold Nanorod. ACS Photonics, 2020, 7, 2498-2505.	3.2	23
16	Laser-Induced Frequency Tuning of Fourier-Limited Single-Molecule Emitters. ACS Nano, 2020, 14, 13584-13592.	7.3	19
17	Explosive, oscillatory, and Leidenfrost boiling at the nanoscale. Physical Review E, 2019, 99, 063110.	0.8	16
18	Nonfluorescent Optical Probing of Single Molecules and Nanoparticles. Journal of Physical Chemistry C, 2019, 123, 14107-14117.	1.5	15

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19	Circular Dichroism Measurement of Single Metal Nanoparticles Using Photothermal Imaging. <i>Nano Letters</i> , 2019, 19, 8934-8940.	4.5	64
20	Matrix-Induced Linear Stark Effect of Single Dibenzoterrylene Molecules in 2,3-Dibromonaphthalene Crystal. <i>ChemPhysChem</i> , 2019, 20, 55-61.	1.0	25
21	Understanding Local-Field Correction Factors in the Framework of the Onsager-Böttcher Model. <i>ChemPhysChem</i> , 2019, 20, 345-355.	1.0	17
22	High-Resolution Single-Molecule Spectroscopy in Condensed Matter. , 2019, , 381-417.		0
23	Gold Nanoparticles as Absolute Nanothermometers. <i>Nano Letters</i> , 2018, 18, 874-880.	4.5	117
24	Quantifying fluorescence enhancement for slowly diffusing single molecules in plasmonic near fields. <i>Journal of Chemical Physics</i> , 2018, 148, 123334.	1.2	7
25	Looking back on 28 years of cryogenic single-molecule experiments. <i>EPJ Web of Conferences</i> , 2018, 190, 01002.	0.1	0
26	Single-molecule fluorescence enhancement of a near-infrared dye by gold nanorods using DNA transient binding. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 20468-20475.	1.3	20
27	Plasmonic Enhancement of Two-Photon-Excited Luminescence of Single Quantum Dots by Individual Gold Nanorods. <i>ACS Photonics</i> , 2018, 5, 2960-2968.	3.2	44
28	Gold Nanorod Enhanced Fluorescence Enables Single-Molecule Electrochemistry of Methylene Blue. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 3566-3569.	7.2	43
29	Gold Nanorod Enhanced Fluorescence Enables Single-Molecule Electrochemistry of Methylene Blue. <i>Angewandte Chemie</i> , 2017, 129, 3620-3623.	1.6	15
30	Absorption and Quantum Yield of Single Conjugated Polymer Poly[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylenevinylene] (MEH-PPV) Molecules. <i>Nano Letters</i> , 2017, 17, 1575-1581.	4.5	39
31	Tip-Specific Functionalization of Gold Nanorods for Plasmonic Biosensing: Effect of Linker Chain Length. <i>Langmuir</i> , 2017, 33, 6503-6510.	1.6	33
32	Spectroscopy of Single Dibenzoterrylene Molecules in <i>o</i> -Dichlorobenzene. <i>ChemPhysChem</i> , 2016, 17, 1524-1529.	1.0	11
33	Background Suppression in Imaging Gold Nanorods through Detection of Anti-Stokes Emission. <i>Biophysical Journal</i> , 2016, 111, 2492-2499.	0.2	16
34	In situ tuning of gold nanorod plasmon through oxidative cyanide etching. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 15619-15624.	1.3	20
35	Gold-Nanorod-Enhanced Fluorescence Correlation Spectroscopy of Fluorophores with High Quantum Yield in Lipid Bilayers. <i>Journal of Physical Chemistry C</i> , 2016, 120, 25996-26003.	1.5	25
36	Intersystem crossing rates of single perylene molecules in ortho-dichlorobenzene. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 17655-17659.	1.3	7

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37	Hundreds-fold Sensitivity Enhancement of Photothermal Microscopy in Near-Critical Xenon. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2524-2529.	2.1	28
38	Super-resolution Localization and Defocused Fluorescence Microscopy on Resonantly Coupled Single-Molecule, Single-Nanorod Hybrids. <i>ACS Nano</i> , 2016, 10, 2455-2466.	7.3	61
39	Background-Suppression in the Detection of Gold Nanoparticles in Cells through Anti-Stokes Photoluminescence. <i>Biophysical Journal</i> , 2016, 110, 486a.	0.2	0
40	Editorial: Einzelmolekülchemie ist mehr als supraauflösende Fluoreszenzmikroskopie. <i>Angewandte Chemie</i> , 2015, 127, 8116-8117.	1.6	1
41	Single-Molecule Chemistry is More than Superresolved Fluorescence Microscopy. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8004-8005.	7.2	10
42	Quantum optics, molecular spectroscopy and low-temperature spectroscopy: general discussion. <i>Faraday Discussions</i> , 2015, 184, 275-303.	1.6	13
43	Plasmonics, Tracking and Manipulating, and Living Cells: general discussion. <i>Faraday Discussions</i> , 2015, 184, 451-473.	1.6	9
44	Enhanced-fluorescence correlation spectroscopy at micro-molar dye concentration around a single gold nanorod. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 21127-21132.	1.3	21
45	Temperature-cycle microscopy reveals single-molecule conformational heterogeneity. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 6532-6544.	1.3	6
46	Explosive formation and dynamics of vapor nanobubbles around a continuously heated gold nanosphere. <i>New Journal of Physics</i> , 2015, 17, 013050.	1.2	80
47	Design and synthesis of aromatic molecules for probing electric fields at the nanoscale. <i>Faraday Discussions</i> , 2015, 184, 251-262.	1.6	3
48	Fast, Label-Free Tracking of Single Viruses and Weakly Scattering Nanoparticles in a Nanofluidic Optical Fiber. <i>ACS Nano</i> , 2015, 9, 12349-12357.	7.3	112
49	Superresolution techniques, biophysics with nanostructures, and fluorescence energy transfer: general discussion. <i>Faraday Discussions</i> , 2015, 184, 143-162.	1.6	1
50	Optical tracing of multiple charges in single-electron devices. <i>Physical Review B</i> , 2014, 90, .	1.1	11
51	Resonant Plasmonic Enhancement of Single-Molecule Fluorescence by Individual Gold Nanorods. <i>ACS Nano</i> , 2014, 8, 4440-4449.	7.3	248
52	Single-molecule optical spectroscopy. <i>Chemical Society Reviews</i> , 2014, 43, 973.	18.7	52
53	Single-molecule photophysics, from cryogenic to ambient conditions. <i>Chemical Society Reviews</i> , 2014, 43, 1029-1043.	18.7	72
54	Celebrating optical nanoscopy. <i>Nature Photonics</i> , 2014, 8, 887-888.	15.6	22

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55	Probing, Sensing, and Fluorescence Enhancement with Single Gold Nanorods. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3000-3006.	2.1	15
56	Probing Silver Deposition on Single Gold Nanorods by Their Acoustic Vibrations. <i>Nano Letters</i> , 2014, 14, 915-922.	4.5	43
57	Stable Single-Molecule Lines of Terrylene in Polycrystalline <i>para</i> -Dichlorobenzene at 1.5 K. <i>ChemPhysChem</i> , 2014, 15, 3032-3039.	1.0	11
58	Single Molecule as a Local Acoustic Detector for Mechanical Oscillators. <i>Physical Review Letters</i> , 2014, 113, 135505.	2.9	40
59	Temperature Cycles Unravel the Dynamics of Single Biomolecules. <i>Biophysical Journal</i> , 2014, 106, 3-4.	0.2	2
60	Metal Nanoparticles for Microscopy and Spectroscopy. , 2014, , 53-98.		5
61	Damping of Acoustic Vibrations of Immobilized Single Gold Nanorods in Different Environments. <i>Nano Letters</i> , 2013, 13, 2710-2716.	4.5	92
62	Toward Single-Molecule Microscopy on a Smart Phone. <i>ACS Nano</i> , 2013, 7, 8340-8343.	7.3	36
63	Individual gold nanorods report on dynamical heterogeneity in supercooled glycerol. <i>Faraday Discussions</i> , 2013, 167, 515.	1.6	12
64	Towards a Molecular View of Glass Heterogeneity. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 163-166.	7.2	15
65	Thousand-fold Enhancement of Single-Molecule Fluorescence Near a Single Gold Nanorod. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 1217-1221.	7.2	169
66	Optical studies of single metal nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 4090.	1.3	6
67	A Plasmonic Biosensor with Single-Molecule Sensitivity. , 2013, , .		0
68	Communication: Crystallite nucleation in supercooled glycerol near the glass transition. <i>Journal of Chemical Physics</i> , 2012, 136, 041102.	1.2	18
69	Rotational diffusion and alignment of short gold nanorods in an external electric field. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 4584.	1.3	26
70	Damping of Acoustic Vibrations of Single Gold Nanoparticles Optically Trapped in Water. <i>Nano Letters</i> , 2012, 12, 1063-1069.	4.5	148
71	Optical detection of single non-absorbing molecules using the surface plasmon resonance of a gold nanorod. <i>Nature Nanotechnology</i> , 2012, 7, 379-382.	15.6	674
72	Chemical Interface Damping in Single Gold Nanorods and Its Near Elimination by Tip-Specific Functionalization. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 8352-8355.	7.2	115

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73	Absorption, Luminescence, and Sizing of Organic Dye Nanoparticles and of Patterns Formed Upon Dewetting. <i>ChemPhysChem</i> , 2012, 13, 946-951.	1.0	14
74	Spectral Diffusion of Single Dibenzoterrylene Molecules in 2,3-Dimethylantracene. <i>ChemPhysChem</i> , 2012, 13, 3510-3515.	1.0	11
75	Luminescence Quantum Yield of Single Gold Nanorods. <i>Nano Letters</i> , 2012, 12, 4385-4391.	4.5	183
76	Reaction Pathways from Single-Molecule Trajectories. <i>ChemPhysChem</i> , 2012, 13, 681-683.	1.0	4
77	Temperature-cycle single-molecule FRET microscopy on polyprolines. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 1762-1769.	1.3	17
78	Making gold nanoparticles fluorescent for simultaneous absorption and fluorescence detection on the single particle level. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 149-153.	1.3	47
79	Correlated Absorption and Photoluminescence of Single Gold Nanoparticles. <i>ChemPhysChem</i> , 2011, 12, 1536-1541.	1.0	53
80	High-Resolution Single-Molecule Spectroscopy. , 2011, , 381-417.		12
81	Single Molecules as Optical Nanoprobes for Soft and Complex Matter. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 854-866.	7.2	82
82	Frequency jitter of a nano-emitter. <i>Nature Photonics</i> , 2010, 4, 667-668.	15.6	7
83	Detection limits in photothermal microscopy. <i>Chemical Science</i> , 2010, 1, 343.	3.7	189
84	Chemical and physical aspects of charge transfer in the fluorescence intermittency of single molecules and quantum dots. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 637-642.	1.6	34
85	Single Molecules as Optical Probes for Structure and Dynamics. <i>Springer Series in Chemical Physics</i> , 2010, , 61-76.	0.2	0
86	Acoustic and Optical Modes of Single Dumbbells of Gold Nanoparticles. <i>ChemPhysChem</i> , 2009, 10, 111-114.	1.0	48
87	Steady Light from Quantum Dots, at Last. But How?. <i>ChemPhysChem</i> , 2009, 10, 2383-2385.	1.0	6
88	Photons pushed together. <i>Nature</i> , 2009, 460, 42-44.	13.7	19
89	From Langmuir-Blodgett films to single molecules. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009, 74, 396-400.	2.5	2
90	Photothermal Correlation Spectroscopy of Gold Nanoparticles in Solution. <i>Journal of Physical Chemistry C</i> , 2009, 113, 11451-11457.	1.5	51

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91	Micron-Sized Structure in a Thin Glycerol Film Revealed by Fluorescent Probes. <i>Journal of Physical Chemistry B</i> , 2009, 113, 15724-15729.	1.2	10
92	Introductory Address for the Special Issue of Molecular Physics. <i>Molecular Physics</i> , 2009, 107, 1843-1844.	0.8	2
93	Photothermal Detection of Individual Gold Nanoparticles: Perspectives for High-Throughput Screening. <i>ChemPhysChem</i> , 2008, 9, 1761-1766.	1.0	20
94	Acoustic Oscillations and Elastic Moduli of Single Gold Nanorods. <i>Nano Letters</i> , 2008, 8, 3493-3497.	4.5	165
95	Soft glassy rheology of supercooled molecular liquids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 4993-4998.	3.3	63
96	Single Biomolecules at Cryogenic Temperatures: From Structure to Dynamics. <i>Springer Series in Biophysics</i> , 2008, , 25-51.	0.4	4
97	Local viscosity of supercooled glycerol near T _g probed by rotational diffusion of ensembles and single dye molecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 12628-12633.	3.3	136
98	Terrylene in hexadecane revisited: A hole burning study. <i>Journal of Chemical Physics</i> , 2007, 127, 084510.	1.2	9
99	Fluorescence as the Choice Method for Single-Molecule Detection. <i>Springer Series on Fluorescence</i> , 2007, , 105-113.	0.8	0
100	A common-path interferometer for time-resolved and shot-noise-limited detection of single nanoparticles. <i>Optics Express</i> , 2007, 15, 2273.	1.7	44
101	Surface and Bulk Spectroscopy of A Molecular Crystal: Effect of Relaxation and Thermal or Static Disorder. <i>Advances in Chemical Physics</i> , 2007, , 1-253.	0.3	26
102	Single Dibenzoterrylene Molecules in an Anthracene Crystal: Spectroscopy and Photophysics. <i>ChemPhysChem</i> , 2007, 8, 1215-1220.	1.0	63
103	Single Dibenzoterrylene Molecules in an Anthracene Crystal: Main Insertion Sites. <i>ChemPhysChem</i> , 2007, 8, 1929-1936.	1.0	65
104	Quantum light switch. <i>Nature Physics</i> , 2007, 3, 755-756.	6.5	15
105	Laser-Driven Microsecond Temperature Cycles Analyzed by Fluorescence Polarization Microscopy. <i>Biophysical Journal</i> , 2006, 90, 2958-2969.	0.2	40
106	Four-Level Optical Line Shape of a Single Molecule Coupled to a Single Tunneling Two-Level System. <i>Journal of Physical Chemistry B</i> , 2006, 110, 18925-18932.	1.2	4
107	Towards nanoprobe for conduction in molecular crystals: Dibenzoterrylene in anthracene crystals. <i>Chemical Physics</i> , 2005, 318, 1-6.	0.9	29
108	Far-Field Optical Microscopy of Single Metal Nanoparticles. <i>Accounts of Chemical Research</i> , 2005, 38, 594-601.	7.6	124

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109	Single-photon sources. Reports on Progress in Physics, 2005, 68, 1129-1179.	8.1	728
110	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
111	Statistical Evaluation of Single Nano-Object Fluorescence. ChemPhysChem, 2005, 6, 770-789.	1.0	129
112	Far-Field Optical Microscopy of Single Metal Nanoparticles. ChemInform, 2005, 36, no.	0.1	1
113	Detection of Acoustic Oscillations of Single Gold Nanospheres by Time-Resolved Interferometry. Physical Review Letters, 2005, 95, 267406.	2.9	202
114	Third-Harmonic Generation from Single Gold Nanoparticles. Nano Letters, 2005, 5, 799-802.	4.5	338
115	In Memory of Roman I. Personov. Journal of Luminescence, 2004, 107, 1-3.	1.5	0
116	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
117	SINGLE-MOLECULE OPTICS. Annual Review of Physical Chemistry, 2004, 55, 585-611.	4.8	233
118	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
119	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
120	Photoblinking of Rhodamine 6G in Poly(vinyl alcohol): a Radical Dark State Formed through the Triplet. Journal of Physical Chemistry A, 2003, 107, 6770-6776.	1.1	248
121	CHEMISTRY: The Motions of an Enzyme Soloist. Science, 2003, 302, 239-240.	6.0	19
122	Imaging single metal-nanoparticles in cells by photothermal interference contrast. , 2003, , .		2
123	Simple model for the power-law blinking of single semiconductor nanocrystals. Physical Review B, 2002, 66, .	1.1	305
124	SINGLE MOLECULES: Molecular Entanglements. Science, 2002, 298, 369-370.	6.0	12
125	Single-molecule spectroscopy: The road ahead. Journal of Chemical Physics, 2002, 117, 10938-10946.	1.2	62
126	Photothermal Imaging of Nanometer-Sized Metal Particles Among Scatterers. Science, 2002, 297, 1160-1163.	6.0	905

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127	Photon Statistics in Single Molecule Experiments. <i>Single Molecules</i> , 2002, 3, 255-265.	1.7	30
128	Investigations of local currents in a semiconductor by single-molecule spectroscopy. <i>Journal of Luminescence</i> , 2002, 98, 1-5.	1.5	9
129	Editorial: Les Houches Spring School on: Optical Spectroscopy and Microscopy of Single Objects. <i>Single Molecules</i> , 2001, 2, 227-228.	1.7	0
130	Probing local currents in semiconductors with single molecules. <i>Physical Review B</i> , 2001, 64, .	1.1	30
131	New design of a cryostat-mounted scanning near-field optical microscope for single molecule spectroscopy. <i>Review of Scientific Instruments</i> , 1999, 70, 1318-1325.	0.6	29
132	Illuminating Single Molecules in Condensed Matter. <i>Science</i> , 1999, 283, 1670-1676.	6.0	1,071
133	Triggered Source of Single Photons based on Controlled Single Molecule Fluorescence. <i>Physical Review Letters</i> , 1999, 83, 2722-2725.	2.9	396
134	Driving the Bloch vector of a single molecule: towards a triggered single photon source. <i>Comptes Rendus De L'Academie De Sciences - Serie Iib: Mecanique, Physique, Chimie, Astronomie</i> , 1998, 326, 911-918.	0.1	4
135	Dibenzanthanthrene in N-Hexadecane, Dibenzoterrylene in Naphthalene: Two New Systems for Single Molecule Spectroscopy. <i>Molecular Crystals and Liquid Crystals</i> , 1996, 291, 41-44.	0.3	9
136	Probing individual two-level systems in a polymer by correlation of single molecule fluorescence. <i>Physical Review Letters</i> , 1993, 70, 3584-3587.	2.9	147
137	Hole burning on an ionic dye in a Langmuir-Blodgett monolayer. <i>Chemical Physics Letters</i> , 1989, 156, 233-239.	1.2	24
138	Coherent surface fluorescence versus thermally activated energy transfer to the bulk in the anthracene crystal: Model calculations and some experimental results. <i>Chemical Physics</i> , 1989, 132, 31-39.	0.9	5
139	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. <i>Physical Review B</i> , 1986, 34, 680-685.	1.1	6
140	Reflection and transmission of light by dye monolayers. <i>Journal of Chemical Physics</i> , 1986, 85, 4966-4979.	1.2	193
141	Orientation of chromophores in monolayers determined from the reflection or transmission of polarized light. <i>Thin Solid Films</i> , 1985, 132, 41-53.	0.8	48
142	Quantum-mechanical-model calculations of radiative properties of a molecular crystal. I. Polaritons and abnormal decays of excitons in one- and two-dimensional systems. <i>Physical Review B</i> , 1982, 25, 7263-7280.	1.1	56
143	Single-molecule and -particle spectroscopy in leiden: absorption, scattering and fluorescence. <i>Journal of Optics (United Kingdom)</i> , 0, , .	1.0	0