

# Stéphane Berciaud

## List of Publications by Year in descending order

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65  
papers

5,854  
citations

94433

37  
h-index

133252

59  
g-index

66  
all docs

66  
docs citations

66  
times ranked

9103  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atmospheric Oxygen Binding and Hole Doping in Deformed Graphene on a SiO <sub>2</sub> Substrate. Nano Letters, 2010, 10, 4944-4951.	9.1	706
2	Probing the Intrinsic Properties of Exfoliated Graphene: Raman Spectroscopy of Free-Standing Monolayers. Nano Letters, 2009, 9, 346-352.	9.1	498
3	Observation of Intrinsic Size Effects in the Optical Response of Individual Gold Nanoparticles. Nano Letters, 2005, 5, 515-518.	9.1	380
4	Energy Transfer from Individual Semiconductor Nanocrystals to Graphene. ACS Nano, 2010, 4, 2964-2968.	14.6	329
5	Absorption and scattering microscopy of single metal nanoparticles. Physical Chemistry Chemical Physics, 2006, 8, 3486.	2.8	308
6	Photothermal Heterodyne Imaging of Individual Nonfluorescent Nanoclusters and Nanocrystals. Physical Review Letters, 2004, 93, 257402.	7.8	302
7	Single Nanoparticle Photothermal Tracking (SNaPT) of 5-nm Gold Beads in Live Cells. Biophysical Journal, 2006, 91, 4598-4604.	0.5	223
8	Photothermal heterodyne imaging of individual metallic nanoparticles: Theory versus experiment. Physical Review B, 2006, 73, .	3.2	207
9	Electron and Optical Phonon Temperatures in Electrically Biased Graphene. Physical Review Letters, 2010, 104, 227401.	7.8	190
10	Luminescence Decay and the Absorption Cross Section of Individual Single-Walled Carbon Nanotubes. Physical Review Letters, 2008, 101, 077402.	7.8	158
11	Absorption Spectroscopy of Individual Single-Walled Carbon Nanotubes. Nano Letters, 2007, 7, 1203-1207.	9.1	154
12	Splitting of Interlayer Shear Modes and Photon Energy Dependent Anisotropic Raman Response in <i>N</i> -Layer ReSe <sub>2</sub> and ReS <sub>2</sub> . ACS Nano, 2016, 10, 2752-2760.	14.6	150
13	Raman spectroscopy of electrochemically gated graphene transistors: Geometrical capacitance, electron-phonon, electron-electron, and electron-defect scattering. Physical Review B, 2015, 91, .	3.2	145
14	Room Temperature Chiral Coupling of Valley Excitons with Spin-Momentum Locked Surface Plasmons. ACS Photonics, 2018, 5, 1281-1287.	6.6	126
15	Unified Description of the Optical Phonon Modes in <i>N</i> -Layer MoTe <sub>2</sub> . Nano Letters, 2015, 15, 6481-6489.	9.1	122
16	All-Optical Trion Generation in Single-Walled Carbon Nanotubes. Physical Review Letters, 2011, 107, 187401.	7.8	115
17	Vibronic Spectroscopy with Submolecular Resolution from STM-Induced Electroluminescence. Physical Review Letters, 2017, 118, 127401.	7.8	102
18	Photothermal Methods for Single Nonluminescent Nano-Objects. Analytical Chemistry, 2008, 80, 2288-2294.	6.5	97

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19	Photothermal Absorption Spectroscopy of Individual Semiconductor Nanocrystals. Nano Letters, 2005, 5, 2160-2163.	9.1	89
20	Distance Dependence of the Energy Transfer Rate from a Single Semiconductor Nanostructure to Graphene. Nano Letters, 2015, 15, 1252-1258.	9.1	78
21	Single-molecule tautomerization tracking through space- and time-resolved fluorescence spectroscopy. Nature Nanotechnology, 2020, 15, 207-211.	31.5	77
22	Biexciton, single carrier, and trion generation dynamics in single-walled carbon nanotubes. Physical Review B, 2013, 87, .	3.2	76
23	Filtering the photoluminescence spectra of atomically thin semiconductors with graphene. Nature Nanotechnology, 2020, 15, 283-288.	31.5	76
24	Intrinsic Line Shape of the Raman 2D-Mode in Freestanding Graphene Monolayers. Nano Letters, 2013, 13, 3517-3523.	9.1	75
25	Charge Versus Energy Transfer in Atomically Thin Graphene-Transition Metal Dichalcogenide van der Waals Heterostructures. Physical Review X, 2018, 8, .	8.9	63
26	High-resolution spatial mapping of the temperature distribution of a Joule self-heated graphene nanoribbon. Applied Physics Letters, 2011, 99, .	3.3	62
27	Reconfigurable 2D/0D p-n Graphene/HgTe Nanocrystal Heterostructure for Infrared Detection. ACS Nano, 2020, 14, 4567-4576.	14.6	60
28	Direct versus indirect band gap emission and exciton-exciton annihilation in atomically thin molybdenum ditelluride $\text{MoTe}_2$ <a href="#">Physical Review B, 2016, 94, ending in the hybrid</a>	3.2	57
29	homojunction heterojunction $\text{MoS}_2$ <a href="#">Physical Review B, 2017, 96, .</a>	3.2	57
30	All-Optical Blister Test of Suspended Graphene Using Micro-Raman Spectroscopy. Physical Review Applied, 2014, 2, .	3.8	56
31	Excitons and high-order optical transitions in individual carbon nanotubes: A Rayleigh scattering spectroscopy study. Physical Review B, 2010, 81, .	3.2	55
32	Temperature dependence of the anharmonic decay of optical phonons in carbon nanotubes and graphite. Physical Review B, 2011, 83, .	3.2	54
33	Optical Readout of Gold Nanoparticle-Based DNA Microarrays without Silver Enhancement. Biophysical Journal, 2006, 90, L13-L15.	0.5	53
34	Landau Level Spectroscopy of Electron-Electron Interactions in Graphene. Physical Review Letters, 2015, 114, 126804.	7.8	52
35	Observation of Electronic Raman Scattering in Metallic Carbon Nanotubes. Physical Review Letters, 2011, 107, 157401.	7.8	44
36	Room-Temperature Valley Polarization and Coherence in Transition Metal Dichalcogenide-Graphene van der Waals Heterostructures. ACS Photonics, 2018, 5, 5047-5054.	6.6	41

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37	Electrical read-out of light-induced spin transition in thin film spin crossover/graphene heterostructures. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2712-2720.	5.5	40
38	Quantum Interference Effects in Resonant Raman Spectroscopy of Single- and Triple-Layer MoTe <sub>2</sub> from First-Principles. <i>Nano Letters</i> , 2017, 17, 2381-2388.	9.1	37
39	Scanning Tunneling Microscope-Induced Excitonic Luminescence of a Two-Dimensional Semiconductor. <i>Physical Review Letters</i> , 2019, 123, 027402.	7.8	36
40	Probing Electronic Excitations in Mono- to Pentalayer Graphene by Micro Magneto-Raman Spectroscopy. <i>Nano Letters</i> , 2014, 14, 4548-4553.	9.1	35
41	Size-induced enhanced magnetoelectric effect and multiferroicity in chromium oxide nanoclusters. <i>Nature Communications</i> , 2014, 5, 3167.	12.8	32
42	Room temperature dry processing of patterned CVD graphene devices. <i>Carbon</i> , 2015, 86, 256-263.	10.3	22
43	Tuning contact transport mechanisms in bilayer MoSe <sub>2</sub> transistors up to Fowler-Nordheim regime. <i>2D Materials</i> , 2017, 4, 015037.	4.4	22
44	Dynamically-enhanced strain in atomically thin resonators. <i>Nature Communications</i> , 2020, 11, 5526.	12.8	22
45	Probing built-in strain in freestanding graphene monolayers by Raman spectroscopy. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 2681-2686.	1.5	17
46	Conductance Oscillations in a Graphene/Nanocluster Hybrid Material: Toward Large-Area Single-Electron Devices. <i>Advanced Materials</i> , 2017, 29, 1604837.	21.0	17
47	Rigid-layer Raman-active modes in <i>N</i> -layer transition metal dichalcogenides: interlayer force constants and hyperspectral Raman imaging. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 91-99.	2.5	17
48	Low Bias Electron Scattering in Structure-Identified Single Wall Carbon Nanotubes: Role of Substrate Polar Phonons. <i>Physical Review Letters</i> , 2011, 107, 146601.	7.8	16
49	Picosecond energy transfer in a transition metal dichalcogenide-graphene heterostructure revealed by transient Raman spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2119726119.	7.1	16
50	Tunable electronic correlation effects in nanotube-light interactions. <i>Physical Review B</i> , 2015, 92, .	3.2	13
51	0D/2D Heterostructures Vertical Single Electron Transistor. <i>Advanced Functional Materials</i> , 2021, 31, 2008255.	14.9	12
52	Doping- and interference-free measurement of I <sub>2D</sub> /I <sub>G</sub> in suspended monolayer graphene blisters. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 2390-2394.	1.5	11
53	Monitoring electrostatically-induced deflection, strain and doping in suspended graphene using Raman spectroscopy. <i>2D Materials</i> , 2017, 4, 014004.	4.4	11
54	All-optical structure assignment of individual single-walled carbon nanotubes from Rayleigh and Raman scattering measurements. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 2436-2441.	1.5	10

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55	Infrared spectra of individual semiconducting single-walled carbon nanotubes: Testing the scaling of transition energies for large diameter nanotubes. <i>Physical Review B</i> , 2010, 82, .	3.2	9
56	Excitonic signatures in the optical response of single-wall carbon nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 900-906.	1.5	9
57	Quasi-two-dimensional electron-hole droplets. <i>Nature Photonics</i> , 2019, 13, 225-226.	31.4	7
58	Epitaxy of MgO magnetic tunnel barriers on epitaxial graphene. <i>Nanotechnology</i> , 2013, 24, 475708.	2.6	5
59	Single- and narrow-line photoluminescence in a boron nitride-supported MoSe <sub>2</sub> /graphene heterostructure. <i>Comptes Rendus Physique</i> , 2021, 22, 77-88.	0.9	1
60	Single molecule CdSe/ZnS quantum dot and gold nanoparticle detection in live neurons. , 2006, , .		0
61	Absorption spectroscopy of individual nano-objects and improved readout of DNA microarrays using photothermal detection. , 2006, 6092, 57.		0
62	Photothermal absorption spectroscopy of individual gold nanoparticles and CdSe/ZnS semiconductor nanocrystals. , 2006, , .		0
63	Photothermal detection and tracking of individual non-fluorescent nano-objects in live cells. , 2008, , .		0
64	Graphene hybrid optomechanical platform for probing interplay between internal and macroscopic degree of freedom. , 2017, , .		0
65	Many-Body Effects in Suspended Graphene Probed through Magneto-Phonon Resonances. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 2000345.	2.4	0