Vahid Sandoghdar

List of Publications by Citations

198 papers	11,977 citations	59 h-index	104 g-index
276 ext. papers	13,796 ext. citations	7.6 avg, IF	6.45 L-index

#	Paper	IF	Citations
198	Enhancement of single-molecule fluorescence using a gold nanoparticle as an optical nanoantenna. *Physical Review Letters*, **2006**, 97, 017402	7.4	1201
197	Detection and spectroscopy of gold nanoparticles using supercontinuum white light confocal microscopy. *Physical Review Letters*, **2004**, 93, 037401	7.4	367
196	Very low threshold whispering-gallery-mode microsphere laser. *Physical Review A*, **1996**, 54, R1777-R1780	2.6	331
195	Measurement of the Casimir-Polder force. *Physical Review Letters*, **1993**, 70, 560-563	7.4	310
194	Nanometer resolution and coherent optical dipole coupling of two individual molecules. *Science*, **2002**, 298, 385-9	33.3	268
193	A single-molecule optical transistor. *Nature*, **2009**, 460, 76-80	50.4	254
192	High-speed nanoscopic tracking of the position and orientation of a single virus. *Nature Methods*, **2009**, 6, 923-7	21.6	252
191	Direct printing of nanostructures by electrostatic autofocussing of ink nanodroplets. *Nature Communications*, **2012**, 3, 890	17.4	241
190	A planar dielectric antenna for directional single-photon emission and near-unity collection efficiency. *Nature Photonics*, **2011**, 5, 166-169	33.9	232
189	Optical microscopy using a single-molecule light source. *Nature*, **2000**, 405, 325-8	50.4	231
188	A single gold particle as a probe for apertureless scanning near-field optical microscopy. *Journal of Microscopy*, **2001**, 202, 72-6	1.9	225
187	Design of plasmonic nanoantennae for enhancing spontaneous emission. *Optics Letters*, **2007**, 32, 1623-5	3	217
186	Splitting of high-Q Mie modes induced by light backscattering in silica microspheres. *Optics Letters*, **1995**, 20, 1835-7	3	217
185	Efficient coupling of photons to a single molecule and the observation of its resonance fluorescence. *Nature Physics*, **2008**, 4, 60-66	16.2	214
184	Controlled coupling of counterpropagating whispering-gallery modes by a single Rayleigh scatterer: a classical problem in a quantum optical light. *Physical Review Letters*, **2007**, 99, 173603	7.4	201
183	Highly directional emission from photonic crystal waveguides of subwavelength width. *Physical Review Letters*, **2004**, 92, 113903	7.4	189
182	Geometry-induced electrostatic trapping of nanometric objects in a fluid. *Nature*, **2010**, 467, 692-5	50.4	175

181	Direct optical sensing of single unlabelled proteins and super-resolution imaging of their binding sites. *Nature Communications*, **2014**, 5, 4495	17.4	161
180	Direct measurement of the van der Waals interaction between an atom and its images in a micron-sized cavity. *Physical Review Letters*, **1992**, 68, 3432-3435	7.4	159
179	Single-molecule imaging by optical absorption. *Nature Photonics*, **2011**, 5, 95-98	33.9	151
178	Interferometric optical detection and tracking of very small gold nanoparticles at a water-glass interface. *Optics Express*, **2006**, 14, 405-14	3.3	146
177	Perfect reflection of light by an oscillating dipole. *Physical Review Letters*, **2008**, 101, 180404	7.4	139
176	Nanoparticle-induced fluorescence lifetime modification as nanoscopic ruler: demonstration at the single molecule level. *Nano Letters*, **2007**, 7, 685-9	11.5	134
175	Single-Molecule Sensitivity in Optical Absorption at Room Temperature. *Journal of Physical Chemistry Letters*, **2010**, 1, 3323-3327	6.4	119
174	Optical microscopy via spectral modifications of a nanoantenna. *Physical Review Letters*, **2005**, 95, 200801	7.4	116
173	Spontaneous emission of europium ions embedded in dielectric nanospheres. *Physical Review Letters*, **2002**, 89, 257403	7.4	114
172	Measuring the quantum efficiency of the optical emission of single radiating dipoles using a scanning mirror. *Physical Review Letters*, **2005**, 95, 063003	7.4	108
171	Diamond colour centres as a nanoscopic light source for scanning near-field optical microscopy. *Journal of Microscopy*, **2001**, 202, 2-6	1.9	104
170	Controlling the resonance of a photonic crystal microcavity by a near-field probe. *Physical Review Letters*, **2005**, 95, 153904	7.4	103
169	Gold nanorods and nanospheroids for enhancing spontaneous emission. *New Journal of Physics*, **2008**, 10, 105015	2.9	102
168	Quantum interference of tunably indistinguishable photons from remote organic molecules. *Physical Review Letters*, **2010**, 104, 123605	7.4	101
167	Tomographic Plasmon Spectroscopy of a Single Gold Nanoparticle. *Nano Letters*, **2004**, 4, 2309-2314	11.5	97
166	Highly efficient interfacing of guided plasmons and photons in nanowires. *Nano Letters*, **2009**, 9, 3756-61	11.5	94
165	Modification of single molecule fluorescence close to a nanostructure: radiation pattern, spontaneous emission and quenching. *Molecular Physics*, **2008**, 106, 893-908	1.7	93
164	Strong extinction of a laser beam by a single molecule. *Physical Review Letters*, **2007**, 98, 033601	7.4	91

163	Mapping whispering-gallery modes in microspheres with a near-field probe. *Optics Letters*, **1995**, 20, 1515-7	3	91
162	Metallodielectric hybrid antennas for ultrastrong enhancement of spontaneous emission. *Physical Review Letters*, **2012**, 108, 233001	7.4	90
161	Eroded monomode optical fiber for whispering-gallery mode excitation in fused-silica microspheres. *Optics Letters*, **1995**, 20, 813-5	3	90
160	Cavity QED level shifts of simple atoms. *Physical Review A*, **1991**, 43, 398-403	2.6	84
159	Spectroscopic detection and state preparation of a single praseodymium ion in a crystal. *Nature Communications*, **2014**, 5, 3627	17.4	83
158	Measurement of the complex dielectric constant of a single gold nanoparticle. *Optics Letters*, **2006**, 31, 2474-6	3	81
157	Imaging a single quantum dot when it is dark. *Nano Letters*, **2009**, 9, 926-9	11.5	78
156	Interferometric Scattering Microscopy: Seeing Single Nanoparticles and Molecules via Rayleigh Scattering. *Nano Letters*, **2019**, 19, 4827-4835	11.5	77
155	Production of Isolated Giant Unilamellar Vesicles under High Salt Concentrations. *Frontiers in Physiology*, **2017**, 8, 63	4.6	77
154	Turning a molecule into a coherent two-level quantum system. *Nature Physics*, **2019**, 15, 483-489	16.2	77
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152	Tracking single particles on supported lipid membranes: multimobility diffusion and nanoscopic confinement. *Journal of Physical Chemistry B*, **2014**, 118, 1545-54	3.4	75
151	Interferometric scattering microscopy reveals microsecond nanoscopic protein motion on a live cell membrane. *Nature Photonics*, **2019**, 13, 480-487	33.9	74
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149	Sub-nanometre resolution in single-molecule photoluminescence imaging. *Nature Photonics*, **2020**, 14, 693-699	33.9	69
148	Aligned terrylene molecules in a spin-coated ultrathin crystalline film of p-terphenyl. *Chemical Physics Letters*, **2004**, 387, 490-495	2.5	67
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145	Label-free characterization of biomembranes: from structure to dynamics. *Chemical Society Reviews* , **2014**, 43, 887-900	58.5	63
144	Coherent interaction of light with a metallic structure coupled to a single quantum emitter: from superabsorption to cloaking. *Physical Review Letters*, **2013**, 110, 153605	7.4	63
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135	Near-field visualization of light confinement in a photonic crystal microresonator. *Optics Letters*, **2004**, 29, 174-6	3	57
134	Apertureless scanning near-field second-harmonic microscopy. *Optics Communications*, **2000**, 178, 245-249		57
133	Cryogenic optical localization provides 3D protein structure data with Angstrom resolution. *Nature Methods*, **2017**, 14, 141-144	21.6	56
132	Resolution and enhancement in nanoantenna-based fluorescence microscopy. *Nano Letters*, **2009**, 9, 4007-11	11.5	56
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94	Spectroscopy of atoms confined to the single node of a standing wave in a parallel-plate cavity. *Physical Review A*, **1996**, 53, 1919-1922	2.6	27
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11	Near-field optical microscopy of light propagation through photonic crystal waveguide tapers **2005** ,		1
10	Deciphering a hexameric protein complex with Angstrom optical resolution		1
9	Precision size and refractive index analysis of weakly scattering nanoparticles in polydispersions		1
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1 Pushing Optical Microscopy to the Limit: From Single-Molecule Fluorescence Microscopy to Label-Free Detection and Tracking of Biological Nano-Objects113