

# Renaud A L Vallée

## List of Publications by Year in descending order

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90  
papers

2,419  
citations

172457

29  
h-index

214800

47  
g-index

91  
all docs

91  
docs citations

91  
times ranked

2919  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiphoton Upconversion Enhanced by Deep Subwavelength Near-Field Confinement. Nano Letters, 2021, 21, 3044-3051.	9.1	48
2	Resonant Scattering Manipulation of Dielectric Nanoparticles. Advanced Optical Materials, 2021, 9, 2100112.	7.3	36
3	Surface-enhanced fluorescence imaging on linear arrays of plasmonic half-shells. Journal of Chemical Physics, 2020, 153, 164701.	3.0	5
4	Total Internal Reflection Tip-Enhanced Raman Spectroscopy of Cytochrome c. Journal of Physical Chemistry Letters, 2020, 11, 3835-3840.	4.6	8
5	Energy Transfer and Interference by Collective Electromagnetic Coupling. Nano Letters, 2019, 19, 5790-5795.	9.1	8
6	Tunable index metamaterials made by bottom-up approaches. Nanoscale Advances, 2019, 1, 1070-1076.	4.6	14
7	Efficient Passivation of Ag Nanowires with 11-Mercaptoundecanoic Acid Probed Using In Situ Total-Internal-Reflection Surface-Enhanced Raman Scattering Spectroscopy. ChemNanoMat, 2019, 5, 1044-1049.	2.8	5
8	Upconversion superburst with sub-200 fs lifetime. Nature Nanotechnology, 2019, 14, 1110-1115.	31.5	130
9	Bulk Photodriven CO <sub>2</sub> Conversion through TiO <sub>2</sub> @Si(HIPE) Monolithic Macrocellular Foams. Advanced Functional Materials, 2019, 29, 1807767.	14.9	26
10	Spectral dependence of plasmon-enhanced fluorescence in a hollow nanotriangle assembled by DNA origami: towards plasmon assisted energy transfer. Nanoscale, 2018, 10, 16568-16573.	5.6	2
11	Plasmonic opals: observation of a collective molecular exciton mode beyond the strong coupling. Scientific Reports, 2017, 7, 4107.	3.3	10
12	Shaping light spectra and field profiles in metal-coated monolayers of etched microspheres. Optical Materials Express, 2017, 7, 2847.	3.0	8
13	Defect Mode Passband Lasing in Self-Assembled Photonic Crystal. ACS Photonics, 2016, 3, 2330-2337.	6.6	29
14	Path-selective lasing in nanostructures based on molecular control of localized surface plasmons. Nanoscale, 2016, 8, 18476-18482.	5.6	5
15	Morphological Design of Gold Nanopillar Arrays and Their Optical Properties. Journal of Physical Chemistry C, 2016, 120, 1178-1185.	3.1	11
16	Polarized SERS on linear arrays of silver half-shells: SERS re-radiation modulated by local density of optical states. Journal of Optics (United Kingdom), 2015, 17, 114007.	2.2	8
17	Competition and Coexistence of Raman and Random Lasing in Silica/Titania-Based Solid Foams. Advanced Optical Materials, 2015, 3, 1640-1651.	7.3	21
18	Propagation and survival of frequency-bin entangled photons in metallic nanostructures. Nanophotonics, 2015, 4, 324-331.	6.0	6

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19	Colocalized dark-field scattering, atomic force and surface-enhanced Raman scattering microscopic imaging of single gold nanoparticles. Journal of Optics (United Kingdom), 2015, 17, 114006.	2.2	15
20	Surface-enhanced spectroscopy on plasmonic oligomers assembled by AFM nanoxerography. Nanoscale, 2015, 7, 2009-2022.	5.6	17
21	Scalability of transport parameters with pore sizes in isodense disordered media. Europhysics Letters, 2014, 107, 64003.	2.0	1
22	Photon transport in cylindrically-shaped disordered meso-macroporous materials. Optics Express, 2014, 22, 7503.	3.4	12
23	Quasi-omnidirectional total light absorption in nanostructured gold surfaces. Optical Materials Express, 2014, 4, 1236.	3.0	11
24	Emitters as probes of a complex plasmo-photonic mode. Journal of Materials Chemistry C, 2014, 2, 10362-10368.	5.5	6
25	Disorder as a Playground for the Coexistence of Optical Nonlinear Effects: Competition between Random Lasing and Stimulated Raman Scattering in Complex Porous Materials. ACS Photonics, 2014, 1, 1206-1211.	6.6	26
26	Quasi-total omnidirectional light absorption in nanostructured gold films. Applied Physics A: Materials Science and Processing, 2014, 117, 471-475.	2.3	2
27	Far-field disentanglement of modes in hybrid plasmonic-photonic crystals by fluorescence nano-reporters. Nanophotonics, 2013, 2, 173-185.	6.0	14
28	Broadband spontaneous emission rate enhancement through the design of plasmonic nanoantennas. Optical Materials Express, 2012, 2, 566.	3.0	3
29	Exploiting the localized surface plasmon modes in gold triangular nanoparticles for sensing applications. Journal of Materials Chemistry, 2012, 22, 11537.	6.7	48
30	Single molecule probing of dynamics in supercooled polymers. Physical Chemistry Chemical Physics, 2011, 13, 1813.	2.8	14
31	Tuning nanopatterns on fused silica substrates: a theoretical and experimental approach. Journal of Materials Chemistry, 2011, 21, 4076.	6.7	17
32	Wavelength-dependent emission enhancement through the design of active plasmonic nanoantennas. Optics Express, 2011, 19, 17697.	3.4	9
33	Inhibition and exaltation of emission in layer-controlled colloidal photonic architectures. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 373, 1-5.	4.7	8
34	Optical cavity modes in semicurved Fabry-Pérot resonators. Journal of Applied Physics, 2010, 108, 086109.	2.5	0
35	Probe molecules in polymer melts near the glass transition: A molecular dynamics study of chain length effects. Journal of Chemical Physics, 2010, 132, 034901.	3.0	16
36	Single Molecules Probing the Freezing of Polymer Melts: A Molecular Dynamics Study for Various Molecule-Chain Linkages. Macromolecules, 2010, 43, 10714-10721.	4.8	5

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37	In situ tuning the optical properties of a cavity by wrinkling. Applied Physics Letters, 2010, 96, 043119.	3.3	29
38	Dynamics and Stability of DNA Mechano-Nanostructures: Energy-Transfer Investigations. Journal of Physical Chemistry C, 2010, 114, 1430-1435.	3.1	4
39	Fine tuning of emission through the engineering of colloidal crystals. Physical Chemistry Chemical Physics, 2010, 12, 11993.	2.8	34
40	Nonaqueous sol-gel chemistry applied to atomic layer deposition: tuning of photonic band gap properties of silica opals. Nanoscale, 2010, 2, 786.	5.6	6
41	Faraday rotation in magnetic colloidal photonic crystals. , 2009, , .		3
42	Polymer-dye interactions as a tool for studying phase transitions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 338, 61-67.	4.7	3
43	Engineering colloidal photonic crystals with magnetic functionalities. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 339, 13-19.	4.7	8
44	Investigation of probe molecule-polymer interactions. Chemical Physics Letters, 2009, 472, 48-54.	2.6	5
45	Single Molecule Probing of the Local Segmental Relaxation Dynamics in Polymer above the Glass Transition Temperature. Journal of the American Chemical Society, 2009, 131, 12201-12210.	13.7	32
46	Controlling the photoluminescence of CdSe/ZnS quantum dots with a magnetic field. Nanotechnology, 2009, 20, 135203.	2.6	4
47	Effects of the Position of a Chemically or Size-Induced Planar Defect on the Optical Properties of Colloidal Crystals. Journal of Physical Chemistry C, 2009, 113, 14487-14492.	3.1	34
48	Nano-engineering of magnetic and ellipsoidal colloidal photonic crystals. , 2009, , .		2
49	Analysis of the exponential character of single molecule rotational correlation functions for large and small fluorescence collection angles. Journal of Chemical Physics, 2008, 128, 154515.	3.0	11
50	Tuning of spontaneous emission in photonic crystals by resonant energy transfer and magnetic fields. Proceedings of SPIE, 2008, , .	0.8	0
51	Photonic crystals for improved light harvesting. , 2008, , .		0
52	Angular Dependence of Fluorescence Emission from Quantum Dots inside a Photonic Crystal. Research Letters in Nanotechnology, 2008, 2008, 1-4.	0.3	8
53	DEVELOPMENT OF MAGNETIC MATERIALS FOR PHOTONIC APPLICATIONS. Journal of Nonlinear Optical Physics and Materials, 2007, 16, 281-294.	1.8	8
54	SECOND-ORDER NONLINEAR OPTICAL PROPERTIES OF CHROMOPHORE-COATED PARTICLES: SYMMETRY CONSIDERATIONS. Journal of Nonlinear Optical Physics and Materials, 2007, 16, 27-35.	1.8	1

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55	Fluorescence lifetime fluctuations of single molecules probe the local environment of oligomers around the glass transition temperature. Journal of Chemical Physics, 2007, 126, 184902.	3.0	11
56	What can be learned from the rotational motion of single molecules in a polymer melt near the glass transition?. Europhysics Letters, 2007, 79, 46001.	2.0	18
57	Nonexponential decay of spontaneous emission from an ensemble of molecules in photonic crystals. Physical Review B, 2007, 76, .	3.2	36
58	Single molecule probing of the glass transition phenomenon: Simulations of several types of probes. Journal of Chemical Physics, 2007, 127, 154903.	3.0	38
59	Photonic superlattices for photonic crystal lasers. Proceedings of SPIE, 2007, , .	0.8	0
60	Spectral narrowing of emission in self-assembled colloidal photonic superlattices. , 2007, , .		0
61	Single molecule fluorescence spectroscopy of pH sensitive oligonucleotide switches. Photochemical and Photobiological Sciences, 2007, 6, 614-618.	2.9	12
62	Controlling the Fluorescence Resonant Energy Transfer by Photonic Crystal Band Gap Engineering. Chemistry of Materials, 2007, 19, 5547-5552.	6.7	59
63	Visualization of Membrane Rafts Using a Perylene Monoimide Derivative and Fluorescence Lifetime Imaging. Biophysical Journal, 2007, 93, 2877-2891.	0.5	49
64	Fluorescent Perylene Diimide Rotaxanes: Spectroscopic Signatures of Wheel-“Chromophore Interactions. Chemistry - A European Journal, 2007, 13, 1291-1299.	3.3	40
65	Solvent and pH Dependent Fluorescent Properties of a Dimethylaminostyryl Borondipyrromethene Dye in Solution. Journal of Physical Chemistry A, 2006, 110, 5998-6009.	2.5	222
66	Photonic bandgap engineering for spectral narrowing of emission in self-assembled colloidal photonic crystals. , 2006, , .		0
67	Fluorophores-modified silica sphere as emission probe in photonic crystals. Chemical Physics Letters, 2006, 421, 1-4.	2.6	18
68	Fluorescence Lifetime of a Single Molecule as an Observable of Meta-Basin Dynamics in Fluids Near the Glass Transition. Physical Review Letters, 2006, 97, 217801.	7.8	39
69	Spectral narrowing of emission in self-assembled colloidal photonic superlattices. Journal of Applied Physics, 2006, 100, 123112.	2.5	33
70	SPONTANEOUS EMISSION OF NANO-ENGINEERED FLUOROPHORES IN PHOTONIC CRYSTALS. Journal of Nonlinear Optical Physics and Materials, 2006, 15, 1-8.	1.8	6
71	A Microscopic Model for the Fluctuations of Local Field and Spontaneous Emission of Single Molecules in Disordered Media. ChemPhysChem, 2005, 6, 81-91.	2.1	58
72	Fluorescence lifetime fluctuations of single molecules probe local density fluctuations in disordered media: A bulk approach. Journal of Chemical Physics, 2005, 122, 114704.	3.0	25

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73	Single Molecule Spectroscopy as a Probe for Dye~Polymer Interactions. Journal of the American Chemical Society, 2005, 127, 12011-12020.	13.7	34
74	A Highly Potassium-Selective Ratiometric Fluorescent Indicator Based on BODIPY Azacrown Ether Excitable with Visible Light. Organic Letters, 2005, 7, 4377-4380.	4.6	297
75	Effect of solvent on nanoscale polymer heterogeneity and mobility probed by single molecule lifetime fluctuations. Chemical Physics Letters, 2004, 384, 5-8.	2.6	10
76	Probing polymers with single fluorescent molecules. European Polymer Journal, 2004, 40, 1001-1011.	5.4	43
77	Segment Dynamics in Thin Polystyrene Films Probed by Single-Molecule Optics. Journal of the American Chemical Society, 2004, 126, 4748-4749.	13.7	34
78	Fluorescence Lifetimes and Emission Patterns Probe the 3D Orientation of the Emitting Chromophore in a Multichromophoric System. Journal of the American Chemical Society, 2004, 126, 14310-14311.	13.7	59
79	Single-Molecule Conformations Probe Free Volume in Polymers. Journal of the American Chemical Society, 2004, 126, 2296-2297.	13.7	61
80	Molecular fluorescence lifetime fluctuations: on the possible role of conformational effects. Chemical Physics Letters, 2003, 372, 282-287.	2.6	16
81	Spatially Heterogeneous Dynamics in Polymer Glasses at Room Temperature Probed by Single Molecule Lifetime Fluctuations. Macromolecules, 2003, 36, 7752-7758.	4.8	43
82	Single Molecule Lifetime Fluctuations Reveal Segmental Dynamics in Polymers. Physical Review Letters, 2003, 91, 038301.	7.8	104
83	Nucleation and Growth of Poly( $\mu$ -caprolactone) on Poly(tetrafluoroethylene) by in-Situ AFM. Macromolecules, 2002, 35, 9383-9390.	4.8	34
84	Size and segregation effects on the phase diagrams of nanoparticles of binary systems. Nanotechnology, 2001, 12, 68-74.	2.6	92
85	Oriented crystallization of NLO organic materials. Synthetic Metals, 2001, 124, 227-232.	3.9	7
86	Optical Probing of Single Fluorescent Molecules and Proteins. ChemPhysChem, 2001, 2, 347-360.	2.1	41
87	On the role of electromagnetic boundary conditions in single molecule fluorescence lifetime studies of dyes embedded in thin films. Chemical Physics Letters, 2001, 348, 161-167.	2.6	37
88	Optical Probing of Single Fluorescent Molecules and Proteins. ChemPhysChem, 2001, 2, 347-360.	2.1	0
89	Nonlinear Optical Properties and Crystalline Orientation of 2-Methyl-4-nitroaniline Layers Grown on Nanostructured Poly(tetrafluoroethylene) Substrates. Journal of the American Chemical Society, 2000, 122, 6701-6709.	13.7	40
90	Morphology and NLO properties of thin films of organic compounds obtained by epitaxial growth. Optical Materials, 1998, 9, 423-429.	3.6	7