Renee R Frontiera

List of Publications by Year
in descending order

53 papers	5,452 citations	201385 27 h-index	174990 52 g-index
54 all docs	54 docs citations	54 times ranked	7465 citing authors

#	Article	IF	Citations
1	Label-Free Super-Resolution Imaging Techniques. Annual Review of Analytical Chemistry, 2022, 15, 37-55.	2.8	13
2	Intermolecular Forces Dictate Vibrational Energy Transfer in Plasmonicâ€"Molecule Systems. ACS Nano, 2022, 16, 847-854.	7.3	11
3	Stimulated Raman imaging below the diffraction limit with a MHz laser. Journal of Raman Spectroscopy, 2021, 52, 404-411.	1.2	6
4	Plasma-driven solution electrolysis. Journal of Applied Physics, 2021, 129, .	1.1	58
5	Decoding Chemical and Physical Processes Driving Plasmonic Photocatalysis Using Surface-Enhanced Raman Spectroscopies. Accounts of Chemical Research, 2021, 54, 2457-2466.	7.6	33
6	Vibronic Coupling and Exciton Chirality: Electronic and Structural Rearrangement between Helical to Zero Momentum Molecular Exciton States. Journal of Physical Chemistry C, 2021, 125, 21511-21520.	1.5	6
7	Femtosecond stimulated Raman spectroscopy â€" guided library mining leads to efficient singlet fission in rubrene derivatives. Chemical Science, 2021, 12, 13825-13835.	3.7	2
8	Beyond single crystals: Imaging rubrene polymorphism across crystalline batches through lattice phonon Raman microscopy. Journal of Chemical Physics, 2021, 155, 234703.	1.2	4
9	Femtosecond stimulated Raman spectro-microscopy for probing chemical reaction dynamics in solid-state materials. Journal of Chemical Physics, 2020, 153, 030901.	1.2	9
10	Advances in Singlet Fission Chromophore Design Enabled by Vibrational Spectroscopies. Journal of Physical Chemistry C, 2020, 124, 25163-25174.	1.5	11
11	Uncovering the Functional Role of Coherent Phonons during the Photoinduced Phase Transition in a Molecular Crystal. Journal of Physical Chemistry Letters, 2020, 11, 7502-7509.	2.1	8
12	Plasmon-Mediated Intramolecular Methyl Migration with Nanoscale Spatial Control. ACS Nano, 2020, 14, 17194-17202.	7.3	9
13	Spatially Offset Femtosecond Stimulated Raman Spectroscopy: Observing Exciton Transport through a Vibrational Lens. Journal of Physical Chemistry Letters, 2020, 11, 4337-4344.	2.1	10
14	Quinine copolymer reporters promote efficient intracellular DNA delivery and illuminate a protein-induced unpackaging mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32919-32928.	3.3	20
15	Far-Field Super-Resolution Vibrational Spectroscopy. Analytical Chemistry, 2019, 91, 8723-8731.	3.2	24
16	Richard P. Van Duyne, plasmonics pioneer. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22891-22893.	3.3	1
17	Facile Background Discrimination in Femtosecond Stimulated Raman Spectroscopy Using a Dual-Frequency Raman Pump Technique. Journal of Physical Chemistry A, 2019, 123, 7932-7939.	1.1	7
18	Orientation and Polarization Dependence of Ground- and Excited-State FSRS in Crystalline Betaine-30. Journal of Physical Chemistry C, 2019, 123, 12563-12572.	1.5	5

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19	Plasmon-Enhanced Chemical Conversion Using Copper Selenide Nanoparticles. Nano Letters, 2019, 19, 2384-2388.	4.5	53
20	Carborane RAFT agents as tunable and functional molecular probes for polymer materials. Polymer Chemistry, 2019, 10, 1660-1667.	1.9	14
21	Plasmon-Driven Câ€"N Bond Cleavage Across a Series of Viologen Derivatives. Journal of Physical Chemistry C, 2019, 123, 29306-29313.	1.5	10
22	Probing the coupling of butterfly wing photonic crystals to plasmon resonances with surface-enhanced Raman spectroscopy. Journal of Materials Chemistry C, 2019, 7, 13887-13895.	2.7	7
23	Femtosecond stimulated Raman evidence for charge-transfer character in pentacene singlet fission. Chemical Science, 2018, 9, 1242-1250.	3.7	64
24	Effect of Silica Supports on Plasmonic Heating of Molecular Adsorbates as Measured by Ultrafast Surface-Enhanced Raman Thermometry. ACS Applied Materials & Interfaces, 2018, 10, 40577-40584.	4.0	10
25	New Insights into Quinineâ€"DNA Binding Using Raman Spectroscopy and Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2018, 122, 9840-9851.	1.2	25
26	Toward a mechanistic understanding of plasmon-mediated photocatalysis. Nanophotonics, 2018, 7, 1697-1724.	2.9	37
27	Ultrafast Nanoscale Raman Thermometry Proves Heating Is Not a Primary Mechanism for Plasmon-Driven Photocatalysis. ACS Nano, 2018, 12, 5848-5855.	7.3	110
28	Monitoring Charge Density Delocalization upon Plasmon Excitation with Ultrafast Surface-Enhanced Raman Spectroscopy. ACS Photonics, 2017, 4, 1033-1039.	3.2	15
29	Stimulated Raman Scattering: From Bulk to Nano. Chemical Reviews, 2017, 117, 5070-5094.	23.0	202
30	Femtosecond Raman Microscopy Reveals Structural Dynamics Leading to Triplet Separation in Rubrene Singlet Fission. Journal of Physical Chemistry Letters, 2017, 8, 5929-5934.	2.1	45
31	Ultrafast Surface-Enhanced Raman Probing of the Role of Hot Electrons in Plasmon-Driven Chemistry. Journal of Physical Chemistry Letters, 2016, 7, 3179-3185.	2.1	89
32	Redox Nonâ€Innocent Behavior of a Terminal Iridium Hydrazido(2âˆ') Triple Bond. Angewandte Chemie - International Edition, 2016, 55, 13169-13173.	7.2	4
33	Competition between Reaction and Degradation Pathways in Plasmon-Driven Photochemistry. Journal of Physical Chemistry C, 2016, 120, 20869-20876.	1.5	38
34	Ultrafast and nonlinear surface-enhanced Raman spectroscopy. Chemical Society Reviews, 2016, 45, 2263-2290.	18.7	143
35	Excited state structural evolution during charge-transfer reactions in betaine-30. Physical Chemistry Chemical Physics, 2016, 18, 20290-20297.	1.3	27
36	Toward Label-Free Super-Resolution Microscopy. ACS Photonics, 2016, 3, 79-86.	3.2	110

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37	Ultrafast surface-enhanced Raman spectroscopy. Analyst, The, 2015, 140, 4922-4931.	1.7	44
38	Determination of Resonance Raman Cross-Sections for Use in Biological SERS Sensing with Femtosecond Stimulated Raman Spectroscopy. Analytical Chemistry, 2014, 86, 7782-7787.	3.2	39
39	High-performance SERS substrates: Advances and challenges. MRS Bulletin, 2013, 38, 615-624.	1.7	267
40	Creating, characterizing, and controlling chemistry with SERS hot spots. Physical Chemistry Chemical Physics, 2013, 15, 21-36.	1.3	621
41	Probing structural evolution along multidimensional reaction coordinates with femtosecond stimulated Raman spectroscopy. Physical Chemistry Chemical Physics, 2012, 14, 405-414.	1.3	65
42	Fano-Like Resonances Arising from Long-Lived Molecule-Plasmon Interactions in Colloidal Nanoantennas. Nano Letters, 2012, 12, 5989-5994.	4.5	61
43	SERS: Materials, applications, and the future. Materials Today, 2012, 15, 16-25.	8.3	1,914
44	Surface-Enhanced Femtosecond Stimulated Raman Spectroscopy. Journal of Physical Chemistry Letters, 2011, 2, 1199-1203.	2.1	131
45	Femtosecond stimulated Raman spectroscopy. Laser and Photonics Reviews, 2011, 5, 102-113.	4.4	86
46	Mapping GFP Structural Evolution during Excited-State Proton Transfer with Femtosecond Stimulated Raman. , 2010, , .		0
47	Ultrafast excited-state isomerization in phytochrome revealed by femtosecond stimulated Raman spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1784-1789.	3.3	190
48	Mapping GFP structure evolution during proton transfer with femtosecond Raman spectroscopy. Nature, 2009, 462, 200-204.	13.7	410
49	Probing Interfacial Electron Transfer in Coumarin 343 Sensitized TiO₂ Nanoparticles with Femtosecond Stimulated Raman. Journal of the American Chemical Society, 2009, 131, 15630-15632.	6.6	75
50	Origin of negative and dispersive features in anti-Stokes and resonance femtosecond stimulated Raman spectroscopy. Journal of Chemical Physics, 2008, 129, 064507.	1.2	71
51	Polarization dependence of vibrational coupling signals in femtosecond stimulated Raman spectroscopy. Journal of Chemical Physics, 2007, 127, 124501.	1.2	21
52	Excited-State Structure and Dynamics of <i>cis</i>- and <i>trans</i>-Azobenzene from Resonance Raman Intensity Analysis. Journal of Physical Chemistry A, 2007, 111, 12072-12080.	1.1	162
53	Direct Observation of Anharmonic Coupling in the Time Domain with Femtosecond Stimulated Raman Scattering. Physical Review Letters, 2006, 96, 238303.	2.9	55