Stephane Coussan

List of Publications by Year
in descending order

63 papers	1,334 citations	279798 23 h-index	377865 34 g-index
63 all docs	63 docs citations	63 times ranked	1138 citing authors

#	Article	IF	Citations
1	IRFEL Selective Irradiation of Amorphous Solid Water: from Dangling to Bulk Modes. Journal of Physical Chemistry A, 2022, 126, 2262-2269.	2.5	4
2	Infrared free-electron laser irradiation of carbon dioxide ice. Journal of Molecular Spectroscopy, 2022, 385, 111601.	1.2	6
3	Structure, Spectra and Photochemistry of 2-Amino-4-Methylthiazole: FTIR Matrix Isolation and Theoretical Studies. Molecules, 2022, 27, 3897.	3.8	3
4	Pyrene Adsorption on a Ag(111) Surface. Journal of Physical Chemistry C, 2021, 125, 11166-11174.	3.1	10
5	Infrared matrix-isolation and theoretical studies of interactions between CH3I and water. Journal of Molecular Structure, 2021, 1236, 130342.	3.6	0
6	Spectral fluctuation in SERS spectra of benzodiazepin molecules: The case of oxazepam. Journal of Raman Spectroscopy, 2020, 51, 2192-2198.	2.5	2
7	Infrared Resonant Vibrationally Induced Restructuring of Amorphous Solid Water. Journal of Physical Chemistry C, 2020, 124, 20864-20873.	3.1	12
8	Infrared spectra and photodecomposition of benzohydroxamic acid isolated in argon matrices. Journal of Molecular Structure, 2020, 1219, 128506.	3.6	4
9	UV Photochemistry of Acetylacetaldehyde Trapped in Cryogenic Matrices. Journal of Physical Chemistry A, 2020, 124, 4916-4928.	2.5	2
10	Chloroformâ€“nitrogen aggregates: Upshifted CH and downshifted CCl stretching vibrations observed by matrix isolation and jet expansion infrared spectroscopy. Low Temperature Physics, 2019, 45, 639-648.	0.6	8
11	Incremental NH stretching downshift through stepwise nitrogen complexation of pyrrole: a combined jet expansion and matrix isolation study. Physical Chemistry Chemical Physics, 2019, 21, 1277-1284.	2.8	13
12	Spectroscopic Measurements of Methane Solidâ€“Gas Equilibrium Clapeyron Curve between 40 and 77 K. Journal of Physical Chemistry A, 2019, 123, 3518-3534.	2.5	1
13	Influence of magnetic field strength on nanoparticle growth in a capacitively-coupled radio-frequency Ar/C₂H₂ discharge. Plasma Research Express, 2019, 1, 015012.	0.9	7
14	UV and IR Photochemistries of Malonaldehyde Trapped in Cryogenic Matrices. Journal of Physical Chemistry A, 2018, 122, 2376-2393.	2.5	8
15	Formation of cyanide compounds during preparation of gold surfaces evidenced by surfaceâ€enhanced <scp>R</scp>aman spectroscopy. Journal of Raman Spectroscopy, 2018, 49, 1184-1189.	2.5	3
16	Hydroâ€carbon material design in a capacitively coupled radioâ€frequency discharge. Plasma Processes and Polymers, 2018, 15, 1700152.	3.0	4
17	UV photochemistry of pyridine-water and pyridine-ammonia complexes trapped in cryogenic matrices. Journal of Molecular Structure, 2018, 1172, 65-73.	3.6	4
18	Crystal structure of 2-oxo-2H-chromen-7-yl 4-fluorobenzoate. Acta Crystallographica Section E: Crystallographic Communications, 2018, 74, 761-765.	0.5	1

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19	IR induced photochemistry of glycolaldehyde in nitrogen matrix. Chemical Physics, 2017, 496, 9-14.	1.9	4
20	Photoinduced water splitting in pyridine water clusters. Physical Chemistry Chemical Physics, 2016, 18, 25637-25644.	2.8	26
21	Infrared laser induced conformational and structural changes of glycine and glycineÂ·water complex in low-temperature matrices. Chemical Physics Letters, 2016, 644, 189-194.	2.6	13
22	Infrared Photoisomerization of 1-Propanol CD₃ and OD Trapped in Four Cryogenic Matrices: Ne, N₂, Ar, and Xe. Journal of Physical Chemistry A, 2015, 119, 1137-1145.	2.5	4
23	Vibrational modes of aminothiophenol: a TERS and DFT study. Physical Chemistry Chemical Physics, 2015, 17, 19134-19138.	2.8	25
24	Inhomogeneity of the amorphous solid water dangling bonds. Physical Chemistry Chemical Physics, 2015, 17, 9429-9435.	2.8	7
25	Unveiling the Surface Structure of Amorphous Solid Water via Selective Infrared Irradiation of OH Stretching Modes. Journal of Physical Chemistry Letters, 2014, 5, 826-829.	4.6	20
26	IR Selective Irradiations of Amorphous Solid Water Dangling Modes: Irradiation vs Annealing Effects. Journal of Physical Chemistry C, 2014, 118, 20488-20495.	3.1	15
27	Vibrational tuning of the Hydrogen transfer in malonaldehyde â€“ a combined FTIR and Raman jet study^{â€}. Molecular Physics, 2013, 111, 2211-2227.	1.7	35
28	Isomerization around Câ€“C and Câ€“O bonds in 1-propanol: Collisional relaxation in supersonic jets and selective IR photo-isomerization in cryogenic matrices. Journal of Molecular Structure, 2012, 1025, 20-32.	3.6	33
29	CH stretching vibration of N-methylformamide as a sensitive probe of its complexation: infrared matrix isolation and computational study. Physical Chemistry Chemical Physics, 2011, 13, 13992.	2.8	12
30	Kinetics of the OCN^{â^'}and HOCN formation from the HNCO + H₂O thermal reaction in interstellar ice analogs. Astronomy and Astrophysics, 2011, 530, A96.	5.1	39
31	Periodic bond breaking and making in the electronic ground state on a sub-picosecond timescale: OH bending spectroscopy of malonaldehyde in the frequency domain at low temperature. Physical Chemistry Chemical Physics, 2010, 12, 8201.	2.8	35
32	New insights into the photodynamics of acetylacetone: isomerization and fragmentation in low-temperature matrixes. Physical Chemistry Chemical Physics, 2010, 12, 8300.	2.8	38
33	Photoâ€Induced Hydrogen Exchange Reaction between Methanol and Glyoxal: Formation of Hydroxyketene. ChemPhysChem, 2008, 9, 1774-1780.	2.1	13
34	Structure, spectra and stability of a tetrafluoromethaneâ€“water complex. Physical Chemistry Chemical Physics, 2008, 10, 1292-1297.	2.8	14
35	Ultrafast Dynamics of Acetylacetone (2,4-Pentanedione) in the S₂ State. Journal of the American Chemical Society, 2008, 130, 2974-2983.	13.7	39
36	Malonaldehyde Synthesis. Synthetic Communications, 2008, 38, 3285-3290.	2.1	7

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37	UV and IR Photoisomerization of Acetylacetone Trapped in a Nitrogen Matrix. Journal of Physical Chemistry A, 2007, 111, 3074-3081.	2.5	20
38	Proton tunneling estimates for malonaldehyde vibrations from supersonic jet and matrix quenching experiments. Physical Chemistry Chemical Physics, 2006, 8, 2344.	2.8	56
39	Experimental and Theoretical UV Characterizations of Acetylacetone and Its Isomers. Journal of Physical Chemistry A, 2006, 110, 3920-3926.	2.5	51
40	The Complexes between CH3OH and CF4. Infrared Matrix Isolation and Theoretical Studies. Journal of Physical Chemistry A, 2006, 110, 4712-4718.	2.5	22
41	Infrared induced isomerizations of water polymers trapped in nitrogen matrix. Chemical Physics, 2006, 324, 527-540.	1.9	26
42	Resonance dipoleâ€“dipole coupling and Fermi resonance in CF4 dimers. Journal of Molecular Spectroscopy, 2006, 238, 64-71.	1.2	10
43	Comparative study of structure and photo-induced reactivity of malonaldehyde and acetylacetone isolated in nitrogen matrices. Low Temperature Physics, 2006, 32, 1042-1049.	0.6	16
44	Matrix Isolation Fourier Transform Infrared Study of Photodecomposition of Formimidic Acid. Journal of Physical Chemistry A, 2005, 109, 11155-11162.	2.5	37
45	H atom transfer along an ammonia chain: Tunneling and mode selectivity in 7-hydroxyquinolineâ‹…(NH[sub 3])[sub 3]. Journal of Chemical Physics, 2004, 121, 2578.	3.0	42
46	Acetylenic/cyanoacetylenic complexes: simulation of the Titanâ€™s atmosphere chemistry. Chemical Physics, 2004, 300, 143-151.	1.9	13
47	Hydrogen Bonding in ROH:Râ€˜OH (R, Râ€˜ = H, CH3, C2H5) Heterodimers: Matrix-Dependent Structure and Infrared-Induced Isomerization. Journal of Physical Chemistry A, 2004, 108, 7331-7338.	2.5	25
48	UV and IR photoisomerizations of an intramolecularly H-bonded molecule: acetylacetone trapped in nitrogen matrix. Chemical Physics Letters, 2003, 370, 118-125.	2.6	21
49	Ammonia-chain clusters: Vibronic spectra of 7-hydroxyquinolineâ‹…(NH3)2. Journal of Chemical Physics, 2003, 119, 3774-3784.	3.0	15
50	Proton transfer and tautomerization in 7-hydroxyquinolineâ‹…(NH3)n clusters: Structure and energetics at the self-consistent field level. Journal of Chemical Physics, 2001, 114, 3524-3534.	3.0	20
51	Waterâ€“wire clusters: Vibronic spectra of 7-hydroxyquinolineâ‹…(H2O)3. Journal of Chemical Physics, 2000, 113, 9032-9043.	3.0	24
52	Methanolâ€“pyridine complexes trapped in argon and nitrogen matrices: Infrared induced isomerization and theoretical calculations. Journal of Chemical Physics, 2000, 113, 8059-8069.	3.0	16
53	Water-chain clusters: Vibronic spectra of 7-hydroxyquinolineâ‹…(H2O)2. Journal of Chemical Physics, 2000, 112, 1192-1203.	3.0	35
54	Infrared-Induced Isomerization of Ethanol Dimers Trapped in Argon and Nitrogen Matrices: Monochromatic Irradiation Experiments and DFT Calculations. Journal of Physical Chemistry A, 2000, 104, 5475-5483.	2.5	43

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55	Hydrogen Bonding and Intermolecular Vibrations of 7-HydroxyquinolineÂ·NH3in the S0and S1States. Journal of Physical Chemistry A, 2000, 104, 9864-9873.	2.5	23
56	Methanol-acetonitrile complexes trapped in argon and nitrogen matrices: Infrared induced isomerization and theoretical calculations. Journal of Chemical Physics, 1999, 110, 10046-10057.	3.0	17
57	Rotational Isomerism of Ethanol and Matrix Isolation Infrared Spectroscopy. Journal of Physical Chemistry A, 1998, 102, 5789-5793.	2.5	110
58	Matrix isolation infrared spectroscopy and DFT calculations of complexes between water and nitrogen. Journal of Molecular Structure, 1998, 471, 37-47.	3.6	55
59	Infrared induced isomerization efficiency for CH2Dâ€“CH2D isolated in rare gas matrices: Influence of the vibrational excitation and of the medium. Journal of Chemical Physics, 1997, 107, 7800-7808.	3.0	11
60	Infrared laser induced isomerization of methanol polymers trapped in nitrogen matrix. I. Trimers. Journal of Chemical Physics, 1997, 107, 6526-6540.	3.0	50
61	Infrared photoisomerization of the methanol dimer trapped in argon matrix: monochromatic irradiation experiments and DFT calculations. Chemical Physics, 1997, 219, 221-234.	1.9	48
62	IR-induced interconversions between five conformers of methanol dimers trapped in nitrogen matrix. Chemical Physics, 1997, 223, 279-292.	1.9	23
63	Infrared photoisomerization of the methanol cyclic trimer trapped in a nitrogen matrix. Chemical Physics Letters, 1994, 217, 123-130.	2.6	34