

Stephane Coussan

List of Publications by Year in descending order

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63
papers

1,334
citations

279798

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docs citations

63
times ranked

1138
citing authors

#	ARTICLE	IF	CITATIONS
1	Rotational Isomerism of Ethanol and Matrix Isolation Infrared Spectroscopy. <i>Journal of Physical Chemistry A</i> , 1998, 102, 5789-5793.	2.5	110
2	Proton tunneling estimates for malonaldehyde vibrations from supersonic jet and matrix quenching experiments. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 2344.	2.8	56
3	Matrix isolation infrared spectroscopy and DFT calculations of complexes between water and nitrogen. <i>Journal of Molecular Structure</i> , 1998, 471, 37-47.	3.6	55
4	Experimental and Theoretical UV Characterizations of Acetylacetone and Its Isomers. <i>Journal of Physical Chemistry A</i> , 2006, 110, 3920-3926.	2.5	51
5	Infrared laser induced isomerization of methanol polymers trapped in nitrogen matrix. I. Trimers. <i>Journal of Chemical Physics</i> , 1997, 107, 6526-6540.	3.0	50
6	Infrared photoisomerization of the methanol dimer trapped in argon matrix: monochromatic irradiation experiments and DFT calculations. <i>Chemical Physics</i> , 1997, 219, 221-234.	1.9	48
7	Infrared-Induced Isomerization of Ethanol Dimers Trapped in Argon and Nitrogen Matrices: Monochromatic Irradiation Experiments and DFT Calculations. <i>Journal of Physical Chemistry A</i> , 2000, 104, 5475-5483.	2.5	43
8	H atom transfer along an ammonia chain: Tunneling and mode selectivity in 7-hydroxyquinoline... $(\text{NH}_3)_3$. <i>Journal of Chemical Physics</i> , 2004, 121, 2578.	3.0	42
9	Ultrafast Dynamics of Acetylacetone (2,4-Pentanedione) in the S_2 State. <i>Journal of the American Chemical Society</i> , 2008, 130, 2974-2983.	13.7	39
10	Kinetics of the OCN^{\wedge} and HOCN formation from the $\text{HNCO} + \text{H}_2\text{O}$ thermal reaction in interstellar ice analogs. <i>Astronomy and Astrophysics</i> , 2011, 530, A96.	5.1	39
11	New insights into the photodynamics of acetylacetone: isomerization and fragmentation in low-temperature matrixes. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 8300.	2.8	38
12	Matrix Isolation Fourier Transform Infrared Study of Photodecomposition of Formimidic Acid. <i>Journal of Physical Chemistry A</i> , 2005, 109, 11155-11162.	2.5	37
13	Water-chain clusters: Vibronic spectra of 7-hydroxyquinoline... $(\text{H}_2\text{O})_2$. <i>Journal of Chemical Physics</i> , 2000, 112, 1192-1203.	3.0	35
14	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. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 8201.	2.8	35
15	Vibrational tuning of the Hydrogen transfer in malonaldehyde – a combined FTIR and Raman jet study. <i>Molecular Physics</i> , 2013, 111, 2211-2227.	1.7	35
16	Infrared photoisomerization of the methanol cyclic trimer trapped in a nitrogen matrix. <i>Chemical Physics Letters</i> , 1994, 217, 123-130.	2.6	34
17	Isomerization around C=C and C=O bonds in 1-propanol: Collisional relaxation in supersonic jets and selective IR photo-isomerization in cryogenic matrices. <i>Journal of Molecular Structure</i> , 2012, 1025, 20-32.	3.6	33
18	Infrared induced isomerizations of water polymers trapped in nitrogen matrix. <i>Chemical Physics</i> , 2006, 324, 527-540.	1.9	26

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19	Photoinduced water splitting in pyridine water clusters. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 25637-25644.	2.8	26
20	Hydrogen Bonding in ROH:R ⁺ OH (R, R ⁺ = H, CH ₃ , C ₂ H ₅) Heterodimers: Matrix-Dependent Structure and Infrared-Induced Isomerization. <i>Journal of Physical Chemistry A</i> , 2004, 108, 7331-7338.	2.5	25
21	Vibrational modes of aminothiophenol: a TERS and DFT study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19134-19138.	2.8	25
22	Water "wire" clusters: Vibronic spectra of 7-hydroxyquinoline...(H ₂ O) ₃ . <i>Journal of Chemical Physics</i> , 2000, 113, 9032-9043.	3.0	24
23	IR-induced interconversions between five conformers of methanol dimers trapped in nitrogen matrix. <i>Chemical Physics</i> , 1997, 223, 279-292.	1.9	23
24	Hydrogen Bonding and Intermolecular Vibrations of 7-Hydroxyquinoline-NH ₃ in the S ₀ and S ₁ States. <i>Journal of Physical Chemistry A</i> , 2000, 104, 9864-9873.	2.5	23
25	The Complexes between CH ₃ OH and CF ₄ . Infrared Matrix Isolation and Theoretical Studies. <i>Journal of Physical Chemistry A</i> , 2006, 110, 4712-4718.	2.5	22
26	UV and IR photoisomerizations of an intramolecularly H-bonded molecule: acetylacetone trapped in nitrogen matrix. <i>Chemical Physics Letters</i> , 2003, 370, 118-125.	2.6	21
27	Proton transfer and tautomerization in 7-hydroxyquinoline...(NH ₃) _n clusters: Structure and energetics at the self-consistent field level. <i>Journal of Chemical Physics</i> , 2001, 114, 3524-3534.	3.0	20
28	UV and IR Photoisomerization of Acetylacetone Trapped in a Nitrogen Matrix. <i>Journal of Physical Chemistry A</i> , 2007, 111, 3074-3081.	2.5	20
29	Unveiling the Surface Structure of Amorphous Solid Water via Selective Infrared Irradiation of OH Stretching Modes. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 826-829.	4.6	20
30	Methanol-acetonitrile complexes trapped in argon and nitrogen matrices: Infrared induced isomerization and theoretical calculations. <i>Journal of Chemical Physics</i> , 1999, 110, 10046-10057.	3.0	17
31	Methanol-pyridine complexes trapped in argon and nitrogen matrices: Infrared induced isomerization and theoretical calculations. <i>Journal of Chemical Physics</i> , 2000, 113, 8059-8069.	3.0	16
32	Comparative study of structure and photo-induced reactivity of malonaldehyde and acetylacetone isolated in nitrogen matrices. <i>Low Temperature Physics</i> , 2006, 32, 1042-1049.	0.6	16
33	Ammonia-chain clusters: Vibronic spectra of 7-hydroxyquinoline...(NH ₃) ₂ . <i>Journal of Chemical Physics</i> , 2003, 119, 3774-3784.	3.0	15
34	IR Selective Irradiations of Amorphous Solid Water Dangling Modes: Irradiation vs Annealing Effects. <i>Journal of Physical Chemistry C</i> , 2014, 118, 20488-20495.	3.1	15
35	Structure, spectra and stability of a tetrafluoromethane-water complex. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 1292-1297.	2.8	14
36	Acetylenic/cyanoacetylenic complexes: simulation of the Titan's atmosphere chemistry. <i>Chemical Physics</i> , 2004, 300, 143-151.	1.9	13

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37	Photoinduced Hydrogen Exchange Reaction between Methanol and Glyoxal: Formation of Hydroxyketene. <i>ChemPhysChem</i> , 2008, 9, 1774-1780.	2.1	13
38	Infrared laser induced conformational and structural changes of glycine and glycine-water complex in low-temperature matrices. <i>Chemical Physics Letters</i> , 2016, 644, 189-194.	2.6	13
39	Incremental NH stretching downshift through stepwise nitrogen complexation of pyrrole: a combined jet expansion and matrix isolation study. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 1277-1284.	2.8	13
40	CH stretching vibration of N-methylformamide as a sensitive probe of its complexation: infrared matrix isolation and computational study. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 13992.	2.8	12
41	Infrared Resonant Vibrationally Induced Restructuring of Amorphous Solid Water. <i>Journal of Physical Chemistry C</i> , 2020, 124, 20864-20873.	3.1	12
42	Infrared induced isomerization efficiency for CH ₂ D ⁺ CH ₂ D isolated in rare gas matrices: Influence of the vibrational excitation and of the medium. <i>Journal of Chemical Physics</i> , 1997, 107, 7800-7808.	3.0	11
43	Resonance dipole-dipole coupling and Fermi resonance in CF ₄ dimers. <i>Journal of Molecular Spectroscopy</i> , 2006, 238, 64-71.	1.2	10
44	Pyrene Adsorption on a Ag(111) Surface. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11166-11174.	3.1	10
45	UV and IR Photochemistries of Malonaldehyde Trapped in Cryogenic Matrices. <i>Journal of Physical Chemistry A</i> , 2018, 122, 2376-2393.	2.5	8
46	Chloroform-nitrogen aggregates: Upshifted CH and downshifted CCl stretching vibrations observed by matrix isolation and jet expansion infrared spectroscopy. <i>Low Temperature Physics</i> , 2019, 45, 639-648.	0.6	8
47	Malonaldehyde Synthesis. <i>Synthetic Communications</i> , 2008, 38, 3285-3290.	2.1	7
48	Inhomogeneity of the amorphous solid water dangling bonds. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 9429-9435.	2.8	7
49	Influence of magnetic field strength on nanoparticle growth in a capacitively-coupled radio-frequency Ar/C ₂ H ₂ discharge. <i>Plasma Research Express</i> , 2019, 1, 015012.	0.9	7
50	Infrared free-electron laser irradiation of carbon dioxide ice. <i>Journal of Molecular Spectroscopy</i> , 2022, 385, 111601.	1.2	6
51	Infrared Photoisomerization of 1-Propanol CD ₃ and OD Trapped in Four Cryogenic Matrices: Ne, N ₂ , Ar, and Xe. <i>Journal of Physical Chemistry A</i> , 2015, 119, 1137-1145.	2.5	4
52	IR induced photochemistry of glycolaldehyde in nitrogen matrix. <i>Chemical Physics</i> , 2017, 496, 9-14.	1.9	4
53	Hydrocarbon material design in a capacitively coupled radio-frequency discharge. <i>Plasma Processes and Polymers</i> , 2018, 15, 1700152.	3.0	4
54	UV photochemistry of pyridine-water and pyridine-ammonia complexes trapped in cryogenic matrices. <i>Journal of Molecular Structure</i> , 2018, 1172, 65-73.	3.6	4

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55	Infrared spectra and photodecomposition of benzohydroxamic acid isolated in argon matrices. <i>Journal of Molecular Structure</i> , 2020, 1219, 128506.	3.6	4
56	IRFEL Selective Irradiation of Amorphous Solid Water: from Dangling to Bulk Modes. <i>Journal of Physical Chemistry A</i> , 2022, 126, 2262-2269.	2.5	4
57	Formation of cyanide compounds during preparation of gold surfaces evidenced by surface-enhanced Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 1184-1189.	2.5	3
58	Structure, Spectra and Photochemistry of 2-Amino-4-Methylthiazole: FTIR Matrix Isolation and Theoretical Studies. <i>Molecules</i> , 2022, 27, 3897.	3.8	3
59	Spectral fluctuation in SERS spectra of benzodiazepin molecules: The case of oxazepam. <i>Journal of Raman Spectroscopy</i> , 2020, 51, 2192-2198.	2.5	2
60	UV Photochemistry of Acetylacetaldehyde Trapped in Cryogenic Matrices. <i>Journal of Physical Chemistry A</i> , 2020, 124, 4916-4928.	2.5	2
61	Crystal structure of 2-oxo-2H-chromen-7-yl 4-fluorobenzoate. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2018, 74, 761-765.	0.5	1
62	Spectroscopic Measurements of Methane Solid-Gas Equilibrium Clapeyron Curve between 40 and 77 K. <i>Journal of Physical Chemistry A</i> , 2019, 123, 3518-3534.	2.5	1
63	Infrared matrix-isolation and theoretical studies of interactions between CH ₃ I and water. <i>Journal of Molecular Structure</i> , 2021, 1236, 130342.	3.6	0