Thomas Gautier

List of Publications by Year in descending order

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44 papers	1,022 citations	623734 14 h-index	434195 31 g-index
47 all docs	47 docs citations	47 times ranked	1213 citing authors

#	Article	IF	Citations
1	Organic compounds on comet 67P/Churyumov-Gerasimenko revealed by COSAC mass spectrometry. Science, 2015, 349, aab0689.	12.6	376
2	Nitrile gas chemistry in Titanâ€™s atmosphere. Icarus, 2011, 213, 625-635.	2.5	73
3	Mid- and far-infrared absorption spectroscopy of Titanâ€™s aerosols analogues. Icarus, 2012, 221, 320-327.	2.5	63
4	Influence of methane concentration on the optical indices of Titanâ€™s aerosols analogues. Icarus, 2012, 221, 670-677.	2.5	44
5	Nitrogen incorporation in Titan's tholins inferred by high resolution orbitrap mass spectrometry and gas chromatographyâ€“mass spectrometry. Earth and Planetary Science Letters, 2014, 404, 33-42.	4.4	39
6	Comparison of soluble and insoluble organic matter in analogues of Titan's aerosols. Earth and Planetary Science Letters, 2018, 495, 185-191.	4.4	38
7	Volatile products controlling Titanâ€™s tholins production. Icarus, 2012, 219, 230-240.	2.5	36
8	Titan's atmosphere simulation experiment using continuum UVâ€VUV synchrotron radiation. Journal of Geophysical Research E: Planets, 2013, 118, 778-788.	3.6	27
9	Influence of trace aromatics on the chemical growth mechanisms of Titan aerosol analogues. Planetary and Space Science, 2017, 140, 27-34.	1.7	27
10	Influence of CO on Titan atmospheric reactivity. Icarus, 2014, 238, 221-229.	2.5	22
11	Development of HPLC-Orbitrap method for identification of N-bearing molecules in complex organic material relevant to planetary environments. Icarus, 2016, 275, 259-266.	2.5	21
12	Disk-resolved Photometric Properties of Pluto and the Coloring Materials across its Surface. Astronomical Journal, 2020, 159, 74.	4.7	18
13	Chemical composition of Pluto aerosol analogues. Icarus, 2020, 346, 113774.	2.5	17
14	Titan's organic aerosols: Molecular composition and structure of laboratory analogues inferred from pyrolysis gas chromatography mass spectrometry analysis. Icarus, 2016, 277, 442-454.	2.5	16
15	Highâ€resolution mass spectrometry for future space missions: Comparative analysis of complex organic matter with LAbâ€CosmOrbitrap and laser desorption/ionization Fourier transform ion cyclotron resonance. Rapid Communications in Mass Spectrometry, 2020, 34, e8645.	1.5	13
16	Optical constants of Pluto aerosol analogues from UV to near-IR. Icarus, 2021, 362, 114398.	2.5	13
17	Structural Study of Analogues of Titanâ€™s Haze by Trapped Ion Mobility Coupled with a Fourier Transform Ion Cyclotron Mass Spectrometer. Journal of the American Society for Mass Spectrometry, 2019, 30, 1169-1173.	2.8	12
18	Positive ion chemistry in an N2-CH4 plasma discharge: Key precursors to the growth of Titan tholins. Icarus, 2020, 338, 113437.	2.5	12

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19	Effect of the Synthesis Temperature on the Optical Indices of Organic Materials Produced by N₂-CH₄RF Plasma. Plasma Processes and Polymers, 2014, 11, 409-417.	3.0	11
20	Imaging Titanâ€™s Organic Haze at Atomic Scale. Astrophysical Journal Letters, 2021, 908, L13.	8.3	11
21	Molecular Isomer Identification of Titanâ€™s Tholins Organic Aerosols by Photoelectron/Photoion Coincidence Spectroscopy Coupled to VUV Synchrotron Radiation. Journal of Physical Chemistry A, 2016, 120, 6529-6540.	2.5	10
22	Laboratory experiments to unveil the molecular reactivity occurring during the processing of ices in the protosolar nebula. Earth and Planetary Science Letters, 2020, 531, 116011.	4.4	9
23	Optimization of ion trajectories in a dynamically harmonized Fourierâ€transform ion cyclotron resonance cell using a design of experiments strategy. Rapid Communications in Mass Spectrometry, 2020, 34, e8659.	1.5	9
24	Decomposition of electron ionization mass spectra for space application using a Monteâ€Carlo approach. Rapid Communications in Mass Spectrometry, 2020, 34, e8684.	1.5	8
25	Interaction dust â€“ plasma in Titan's ionosphere: An experimental simulation of aerosols erosion. Icarus, 2020, 345, 113741.	2.5	8
26	Suggested plausible structures for Titan's haze analogs using tandem mass spectrometry. Icarus, 2021, 358, 114181.	2.5	8
27	ESA's Cometary Mission Rosettaâ€”Reâ€Characterization of the COSAC Mass Spectrometry Results. Angewandte Chemie - International Edition, 2022, 61, .	13.8	8
28	Carbonization in Titan Tholins: implication for low albedo on surfaces of Centaurs and trans-Neptunian objects. International Journal of Astrobiology, 2016, 15, 231-238.	1.6	7
29	Structural elucidation of soluble organic matter: Application to Titan's haze. Icarus, 2020, 340, 113627.	2.5	7
30	Compositional Measurements of Saturn's Upper Atmosphere and Rings From Cassini INMS: An Extended Analysis of Measurements From Cassini's Grand Finale Orbits. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	7
31	Optical properties of analogs of Titanâ€™s aerosols produced by dusty plasma. Earth, Planets and Space, 2013, 65, 1175-1184.	2.5	6
32	Methane Conversion in a N2ï£¿CH4Radiofrequency Discharge. Plasma Processes and Polymers, 2014, 11, 472-481.	3.0	6
33	Testing tholins as analogues of the dark reddish material covering Plutoâ€™s Cthulhu region. Icarus, 2021, 367, 114574.	2.5	6
34	Decay of COSAC and Ptolemy mass spectra at comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2017, 600, A56.	5.1	5
35	On an EUV Atmospheric Simulation Chamber to Study the Photochemical Processes of Titanâ€™s Atmosphere. Scientific Reports, 2020, 10, 10009.	3.3	5
36	Compositional Measurements of Saturn's Upper Atmosphere and Rings from Cassini INMS. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006427.	3.6	5

#	Article	IF	Citations
37	Science goals and new mission concepts for future exploration of Titanâ€™s atmosphere, geology and habitability: titan POlar scout/orbitEr and in situ lake lander and DrONe explorer (POSEIDON). Experimental Astronomy, 2022, 54, 911-973.	3.7	5
38	Environmental temperature effect on the far-infrared absorption features of aromatic-based Titan's aerosol analogs. Icarus, 2017, 281, 338-341.	2.5	4
39	Competence evaluation of COSAC flight spare model mass spectrometer: In preparation of arrival of Philae lander on comet 67P/Churyumovâ€“Gerasimenko. Planetary and Space Science, 2015, 106, 132-141.	1.7	3
40	COSAC's Only Gas Chromatogram Taken on Comet 67P/Churyumovâ€Gerasimenko. ChemPlusChem, 2022, 87, .	2.8	3
41	Detection Opportunity for Aromatic Signature in Titanâ€™s Aerosols in the 4.1â€“5.3 Î¼m Range. Astrophysical Journal Letters, 2018, 861, L25.	8.3	2
42	ESAs Kometenâ€Mission Rosetta â€“ Neuâ€Analyse der Daten des COSAC Massenspektrometers. Angewandte Chemie, 2022, 134, .	2.0	2
43	Photochemistry simulation of planetary atmosphere using synchrotron radiation at soleil. Application to Titanâ€™s atmosphere. EAS Publications Series, 2012, 58, 199-203.	0.3	0
44	RÃ¼cktitelbild: ESAs Kometenâ€Mission Rosetta â€“ Neuâ€Analyse der Daten des COSAC Massenspektrometers (Angew. Chem. 29/2022). Angewandte Chemie, 2022, 134, .	2.0	0