

Thomas Gautier

List of Publications by Year in descending order

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44
papers

1,022
citations

623734

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434195

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all docs

47
docs citations

47
times ranked

1213
citing authors

#	ARTICLE	IF	CITATIONS
1	Science goals and new mission concepts for future exploration of Titan's atmosphere, geology and habitability: titan POLar scout/orbitEr and in situ lake lander and DrONE explorer (POSEIDON). <i>Experimental Astronomy</i> , 2022, 54, 911-973.	3.7	5
2	ESA's Cometary Mission Rosetta's Characterization of the COSAC Mass Spectrometry Results. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	8
3	ESAs Kometen-Mission Rosetta - Neu-Analyse der Daten des COSAC Massenspektrometers. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	2
4	Compositional Measurements of Saturn's Upper Atmosphere and Rings From Cassini INMS: An Extended Analysis of Measurements From Cassini's Grand Finale Orbits. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	7
5	COSAC's Only Gas Chromatogram Taken on Comet 67P/Churyumov-Gerasimenko. <i>ChemPlusChem</i> , 2022, 87, .	2.8	3
6	ESAs Kometen-Mission Rosetta - Neu-Analyse der Daten des COSAC Massenspektrometers (Angew. Chem. 29/2022). <i>Angewandte Chemie</i> , 2022, 134, .	2.0	0
7	Suggested plausible structures for Titan's haze analogs using tandem mass spectrometry. <i>Icarus</i> , 2021, 358, 114181.	2.5	8
8	Imaging Titan's Organic Haze at Atomic Scale. <i>Astrophysical Journal Letters</i> , 2021, 908, L13.	8.3	11
9	Optical constants of Pluto aerosol analogues from UV to near-IR. <i>Icarus</i> , 2021, 362, 114398.	2.5	13
10	Testing tholins as analogues of the dark reddish material covering Pluto's Cthulhu region. <i>Icarus</i> , 2021, 367, 114574.	2.5	6
11	High-resolution mass spectrometry for future space missions: Comparative analysis of complex organic matter with LAB-CosmOrbitrap and laser desorption/ionization Fourier transform ion cyclotron resonance. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8645.	1.5	13
12	Positive ion chemistry in an N ₂ -CH ₄ plasma discharge: Key precursors to the growth of Titan tholins. <i>Icarus</i> , 2020, 338, 113437.	2.5	12
13	Decomposition of electron ionization mass spectra for space application using a Monte Carlo approach. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8684.	1.5	8
14	Laboratory experiments to unveil the molecular reactivity occurring during the processing of ices in the protosolar nebula. <i>Earth and Planetary Science Letters</i> , 2020, 531, 116011.	4.4	9
15	Optimization of ion trajectories in a dynamically harmonized Fourier transform ion cyclotron resonance cell using a design of experiments strategy. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8659.	1.5	9
16	On an EUV Atmospheric Simulation Chamber to Study the Photochemical Processes of Titan's Atmosphere. <i>Scientific Reports</i> , 2020, 10, 10009.	3.3	5
17	Chemical composition of Pluto aerosol analogues. <i>Icarus</i> , 2020, 346, 113774.	2.5	17
18	Compositional Measurements of Saturn's Upper Atmosphere and Rings from Cassini INMS. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006427.	3.6	5

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19	Interaction dust & plasma in Titan's ionosphere: An experimental simulation of aerosols erosion. <i>Icarus</i> , 2020, 345, 113741.	2.5	8
20	Structural elucidation of soluble organic matter: Application to Titan's haze. <i>Icarus</i> , 2020, 340, 113627.	2.5	7
21	Disk-resolved Photometric Properties of Pluto and the Coloring Materials across its Surface. <i>Astronomical Journal</i> , 2020, 159, 74.	4.7	18
22	Structural Study of Analogues of Titan's Haze by Trapped Ion Mobility Coupled with a Fourier Transform Ion Cyclotron Mass Spectrometer. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 1169-1173.	2.8	12
23	Comparison of soluble and insoluble organic matter in analogues of Titan's aerosols. <i>Earth and Planetary Science Letters</i> , 2018, 495, 185-191.	4.4	38
24	Detection Opportunity for Aromatic Signature in Titan's Aerosols in the 4.1-5.3 μ m Range. <i>Astrophysical Journal Letters</i> , 2018, 861, L25.	8.3	2
25	Influence of trace aromatics on the chemical growth mechanisms of Titan aerosol analogues. <i>Planetary and Space Science</i> , 2017, 140, 27-34.	1.7	27
26	Decay of COSAC and Ptolemy mass spectra at comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2017, 600, A56.	5.1	5
27	Environmental temperature effect on the far-infrared absorption features of aromatic-based Titan's aerosol analogs. <i>Icarus</i> , 2017, 281, 338-341.	2.5	4
28	Development of HPLC-Orbitrap method for identification of N-bearing molecules in complex organic material relevant to planetary environments. <i>Icarus</i> , 2016, 275, 259-266.	2.5	21
29	Titan's organic aerosols: Molecular composition and structure of laboratory analogues inferred from pyrolysis gas chromatography mass spectrometry analysis. <i>Icarus</i> , 2016, 277, 442-454.	2.5	16
30	Molecular Isomer Identification of Titan's Tholins Organic Aerosols by Photoelectron/Photoion Coincidence Spectroscopy Coupled to VUV Synchrotron Radiation. <i>Journal of Physical Chemistry A</i> , 2016, 120, 6529-6540.	2.5	10
31	Carbonization in Titan Tholins: implication for low albedo on surfaces of Centaurs and trans-Neptunian objects. <i>International Journal of Astrobiology</i> , 2016, 15, 231-238.	1.6	7
32	Competence evaluation of COSAC flight spare model mass spectrometer: In preparation of arrival of Philae lander on comet 67P/Churyumov-Gerasimenko. <i>Planetary and Space Science</i> , 2015, 106, 132-141.	1.7	3
33	Organic compounds on comet 67P/Churyumov-Gerasimenko revealed by COSAC mass spectrometry. <i>Science</i> , 2015, 349, aab0689.	12.6	376
34	Methane Conversion in a N ₂ -CH ₄ Radiofrequency Discharge. <i>Plasma Processes and Polymers</i> , 2014, 11, 472-481.	3.0	6
35	Effect of the Synthesis Temperature on the Optical Indices of Organic Materials Produced by N ₂ -CH ₄ RF Plasma. <i>Plasma Processes and Polymers</i> , 2014, 11, 409-417.	3.0	11
36	Nitrogen incorporation in Titan's tholins inferred by high resolution orbitrap mass spectrometry and gas chromatography-mass spectrometry. <i>Earth and Planetary Science Letters</i> , 2014, 404, 33-42.	4.4	39

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37	Influence of CO on Titan atmospheric reactivity. <i>Icarus</i> , 2014, 238, 221-229.	2.5	22
38	Titan's atmosphere simulation experiment using continuum UV-VUV synchrotron radiation. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 778-788.	3.6	27
39	Optical properties of analogs of Titan's aerosols produced by dusty plasma. <i>Earth, Planets and Space</i> , 2013, 65, 1175-1184.	2.5	6
40	Photochemistry simulation of planetary atmosphere using synchrotron radiation at soleil. Application to Titan's atmosphere. <i>EAS Publications Series</i> , 2012, 58, 199-203.	0.3	0
41	Mid- and far-infrared absorption spectroscopy of Titan's aerosols analogues. <i>Icarus</i> , 2012, 221, 320-327.	2.5	63
42	Influence of methane concentration on the optical indices of Titan's aerosols analogues. <i>Icarus</i> , 2012, 221, 670-677.	2.5	44
43	Volatile products controlling Titan's tholins production. <i>Icarus</i> , 2012, 219, 230-240.	2.5	36
44	Nitrile gas chemistry in Titan's atmosphere. <i>Icarus</i> , 2011, 213, 625-635.	2.5	73