Gabriel Tobie

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4547124/publications.pdf

Version: 2024-02-01

40 papers	2,746 citations	186265 28 h-index	302126 39 g-index
40 all docs	40 docs citations	40 times ranked	1817 citing authors

#	Article	IF	Citations
1	Macromolecular organic compounds from the depths of Enceladus. Nature, 2018, 558, 564-568.	27.8	282
2	Tidal dissipation within large icy satellites: Applications to Europa and Titan. Icarus, 2005, 177, 534-549.	2.5	190
3	Tidally heated convection: Constraints on Europa's ice shell thickness. Journal of Geophysical Research, 2003, 108, .	3.3	177
4	STRONG TIDAL DISSIPATION IN SATURN AND CONSTRAINTS ON ENCELADUS' THERMAL STATE FROM ASTROMETRY. Astrophysical Journal, 2012, 752, 14.	4.5	163
5	Powering prolonged hydrothermal activity inside Enceladus. Nature Astronomy, 2017, 1, 841-847.	10.1	158
6	Europa: Tidal heating of upwelling thermal plumes and the origin of lenticulae and chaos melting. Geophysical Research Letters, 2002, 29, 74-1-74-4.	4.0	156
7	Enceladus's internal ocean and ice shell constrained from Cassini gravity, shape, and libration data. Geophysical Research Letters, 2016, 43, 5653-5660.	4.0	141
8	Geophysical Investigations of Habitability in Iceâ€Covered Ocean Worlds. Journal of Geophysical Research E: Planets, 2018, 123, 180-205.	3.6	133
9	Modeling climate diversity, tidal dynamics and the fate of volatiles on TRAPPIST-1 planets. Astronomy and Astrophysics, 2018, 612, A86.	5.1	130
10	Stability of methane clathrate hydrates under pressure: Influence on outgassing processes of methane on Titan. Icarus, 2010, 205, 581-593.	2.5	107
11	Shape, topography, gravity anomalies and tidal deformation of Titan. Icarus, 2014, 236, 169-177.	2.5	88
12	The orbitalâ€“thermal evolution and global expansion of Ganymede. Icarus, 2009, 200, 207-221.	2.5	63
13	Tidal constraints on the interior of Venus. Journal of Geophysical Research E: Planets, 2017, 122, 1338-1352.	3.6	62
14	Large Ocean Worlds with High-Pressure Ices. Space Science Reviews, 2020, 216, 1.	8.1	62
15	Tidally-induced melting events as the origin of south-pole activity on Enceladus. Icarus, 2012, 219, 655-664.	2.5	60
16	Long-term stability of Enceladusâ€™ uneven ice shell. Icarus, 2019, 319, 476-484.	2.5	59
17	Implications of Rotation, Orbital States, Energy Sources, and Heat Transport for Internal Processes in Icy Satellites. Space Science Reviews, 2010, 153, 317-348.	8.1	52
18	TIDALLY INDUCED THERMAL RUNAWAYS ON EXTRASOLAR EARTHS: IMPACT ON HABITABILITY. Astrophysical Journal, 2011, 728, 89.	4.5	50

#	Article	IF	Citations
19	Two-phase convection in Ganymedeâ€™s high-pressure ice layer â€”ÂImplications for its geological evolution. Icarus, 2018, 299, 133-147.	2.5	49
20	Heat transport in the high-pressure ice mantle of large icy moons. Icarus, 2017, 285, 252-262.	2.5	47
21	Coupling mantle convection and tidal dissipation: Applications to Enceladus and Earthâ€like planets. Journal of Geophysical Research, 2010, 115, .	3.3	46
22	Ice melting and downward transport of meltwater by twoâ€phase flow in Europa's ice shell. Journal of Geophysical Research E: Planets, 2014, 119, 532-549.	3.6	46
23	Ice-Ocean Exchange Processes in the Jovian and Saturnian Satellites. Space Science Reviews, 2020, 216, 1.	8.1	43
24	Timing of water plume eruptions on Enceladus explained by interior viscosity structure. Nature Geoscience, 2015, 8, 601-604.	12.9	41
25	Structure and dynamics of Titanâ€™s outer icy shell constrained from Cassini data. Icarus, 2014, 237, 16-28.	2.5	40
26	Water generation and transport below Europa's strike-slip faults. Journal of Geophysical Research E: Planets, 2016, 121, 2444-2462.	3.6	36
27	Tidally Induced Magmatic Pulses on the Oceanic Floor of Jupiter's Moon Europa. Geophysical Research Letters, 2021, 48, e2020GL090077.	4.0	36
28	Tidal dissipation in Enceladus' uneven, fractured ice shell. Icarus, 2019, 328, 218-231.	2.5	32
29	Consequences of large impacts on Enceladusâ€™ core shape. Icarus, 2016, 264, 300-310.	2.5	31
30	Cooling patterns in rotating thin spherical shells â€” Application to Titan's subsurface ocean. Icarus, 2020, 338, 113509.	2.5	28
31	Impact of tidal heating on the onset of convection in Enceladusâ€™s ice shell. Icarus, 2013, 226, 898-904.	2.5	25
32	Solid tidal friction in multi-layer planets: Application to Earth, Venus, a Super Earth and the TRAPPIST-1 planets. Astronomy and Astrophysics, 2020, 644, A165.	5.1	24
33	Tidal response of rocky and ice-rich exoplanets. Astronomy and Astrophysics, 2019, 630, A70.	5.1	21
34	Titan's Interior Structure and Dynamics After the Cassini-Huygens Mission. Annual Review of Earth and Planetary Sciences, 2021, 49, 579-607.	11.0	17
35	A Recipe for the Geophysical Exploration of Enceladus. Planetary Science Journal, 2021, 2, 157.	3.6	14
36	Geologically rapid aqueous mineral alteration at subfreezing temperatures in icy worlds. Nature Astronomy, 2022, 6, 554-559.	10.1	12

#	Article	IF	Citations
37	Scaling of heat transfer in stagnant lid convection for the outer shell of icy moons: Influence of rheology. Icarus, 2020, 338, 113448.	2.5	8
38	Tides and Tidal Heating on Europa. , 0, , 85-118.		7
39	Inferring Ioâ€™s interior from tidal monitoring. Icarus, 2022, 373, 114737.	2.5	5
40	Enceladus as a potential oasis for life: Science goals and investigations for future explorations. Experimental Astronomy, 2022, 54, 809-847.	3.7	5