Francis Nimmo

List of Publications by Year
in descending order

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245 papers	16,053 citations	13865 67 h-index	21540 114 g-index

255 all docs	255 docs citations	255 times ranked	7099 citing authors

#	Article	IF	Citations
1	The Crust of the Moon as Seen by GRAIL. Science, 2013, 339, 671-675.	12.6	726
2	Hfâ€“W chronology of the accretion and early evolution of asteroids and terrestrial planets. Geochimica Et Cosmochimica Acta, 2009, 73, 5150-5188.	3.9	521
3	The Pluto system: Initial results from its exploration by New Horizons. Science, 2015, 350, aad1815.	12.6	407
4	Transient Water Vapor at Europaâ€™s South Pole. Science, 2014, 343, 171-174.	12.6	401
5	Heterogeneous accretion, composition and coreâ€“mantle differentiation of the Earth. Earth and Planetary Science Letters, 2011, 301, 31-42.	4.4	352
6	The Gravity Field and Interior Structure of Enceladus. Science, 2014, 344, 78-80.	12.6	339
7	Accretion and differentiation of the terrestrial planets with implications for the compositions of early-formed Solar System bodies and accretion of water. Icarus, 2015, 248, 89-108.	2.5	328
8	EARLY CRUSTAL EVOLUTION OF MARS. Annual Review of Earth and Planetary Sciences, 2005, 33, 133-161.	11.0	280
9	Initial results from the InSight mission on Mars. Nature Geoscience, 2020, 13, 183-189.	12.9	274
10	Influence of early plate tectonics on the thermal evolution and magnetic field of Mars. Journal of Geophysical Research, 2000, 105, 11969-11979.	3.3	264
11	Shear heating as the origin of the plumes and heat flux on Enceladus. Nature, 2007, 447, 289-291.	27.8	232
12	The geology of Pluto and Charon through the eyes of New Horizons. Science, 2016, 351, 1284-1293.	12.6	219
13	Characteristics and consequences of flow in the lower crust. Journal of Geophysical Research, 2000, 105, 11029-11046.	3.3	207
14	A Hadean to Paleoarchean geodynamo recorded by single zircon crystals. Science, 2015, 349, 521-524.	12.6	207
15	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. Nature Geoscience, 2020, 13, 213-220.	12.9	207
16	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
17	The seismicity of Mars. Nature Geoscience, 2020, 13, 205-212.	12.9	194
18	Lunar interior properties from the GRAIL mission. Journal of Geophysical Research E: Planets, 2014, 119, 1546-1578.	3.6	185

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19	VOLCANISM AND TECTONICS ON VENUS. Annual Review of Earth and Planetary Sciences, 1998, 26, 23-51.	11.0	184
20	Ancient Igneous Intrusions and Early Expansion of the Moon Revealed by GRAIL Gravity Gradiometry. Science, 2013, 339, 675-678.	12.6	177
21	The influence of potassium on core and geodynamo evolution. Geophysical Journal International, 2004, 156, 363-376.	2.4	174
22	Lunar impact basins revealed by Gravity Recovery and Interior Laboratory measurements. Science Advances, 2015, 1, e1500852.	10.3	173
23	Tidal heating and the long-term stability of a subsurface ocean on Enceladus. Icarus, 2008, 194, 675-689.	2.5	171
24	Ocean worlds in the outer solar system. Journal of Geophysical Research E: Planets, 2016, 121, 1378-1399.	3.6	149
25	Implications of an impact origin for the martian hemispheric dichotomy. Nature, 2008, 453, 1220-1223.	27.8	145
26	Enceladus: An Active Ice World in the Saturn System. Annual Review of Earth and Planetary Sciences, 2013, 41, 693-717.	11.0	142
27	A long-lived lunar dynamo driven by continuous mechanical stirring. Nature, 2011, 479, 212-214.	27.8	138
28	Thermal evolution of the Martian core: Implications for an early dynamo. Geology, 2004, 32, 97.	4.4	132
29	Origin of the non-carbonaceousâ€“carbonaceous meteorite dichotomy. Earth and Planetary Science Letters, 2019, 511, 44-54.	4.4	130
30	HOW THE GEYSERS, TIDAL STRESSES, AND THERMAL EMISSION ACROSS THE SOUTH POLAR TERRAIN OF ENCELADUS ARE RELATED. Astronomical Journal, 2014, 148, 45.	4.7	129
31	Magnesium isotope evidence that accretional vapour loss shapes planetary compositions. Nature, 2017, 549, 511-515.	27.8	129
32	An early geodynamo driven by exsolution of mantle components from Earthâ€™s core. Nature, 2016, 536, 326-328.	27.8	128
33	GRAIL gravity constraints on the vertical and lateral density structure of the lunar crust. Geophysical Research Letters, 2014, 41, 5771-5777.	4.0	126
34	How rapidly did Mars accrete? Uncertainties in the Hfâ€“W timing of core formation. Icarus, 2007, 191, 497-504.	2.5	121
35	Young inner core inferred from Ediacaran ultra-low geomagnetic field intensity. Nature Geoscience, 2019, 12, 143-147.	12.9	121
36	Diapir-induced reorientation of Saturn's moon Enceladus. Nature, 2006, 441, 614-616.	27.8	120

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37	Estimates of Martian crustal thickness from viscous relaxation of topography. Journal of Geophysical Research, 2001, 106, 5085-5098.	3.3	119
38	Strike-slip motion and double ridge formation on Europa. Journal of Geophysical Research, 2002, 107, 5-1.	3.3	119
39	The generation of martian floods by the melting of ground ice above dykes. Nature, 1999, 397, 231-233.	27.8	116
40	Evidence of a Global Magma Ocean in Ioâ€™s Interior. Science, 2011, 332, 1186-1189.	12.6	115
41	Evidence for a Dynamo in the Main Group Pallasite Parent Body. Science, 2012, 338, 939-942.	12.6	108
42	Reorientation of Sputnik Planitia implies a subsurface ocean on Pluto. Nature, 2016, 540, 94-96.	27.8	108
43	Formation of methane on Mars by fluid-rock interaction in the crust. Geophysical Research Letters, 2005, 32, .	4.0	107
44	Why does Venus lack a magnetic field?. Geology, 2002, 30, 987.	4.4	106
45	Mean radius and shape of Pluto and Charon from New Horizons images. Icarus, 2017, 287, 12-29.	2.5	105
46	Convection in a volatile nitrogen-ice-rich layer drives Plutoâ€™s geological vigour. Nature, 2016, 534, 82-85.	27.8	102
47	Plutoâ€™s ocean is capped and insulated by gas hydrates. Nature Geoscience, 2019, 12, 407-410.	12.9	101
48	Origin of the Plutoâ€“Charon system: Constraints from the New Horizons flyby. Icarus, 2017, 287, 2-11.	2.5	99
49	Tidal heating in icy satellite oceans. Icarus, 2014, 229, 11-30.	2.5	97
50	A Geophysical Perspective on the Bulk Composition of Mars. Journal of Geophysical Research E: Planets, 2018, 123, 575-611.	3.6	97
51	Shell thickness variations and the long-wavelength topography of Titan. Icarus, 2010, 208, 896-904.	2.5	87
52	Thermal evolution of Pluto and implications for surface tectonics and a subsurface ocean. Icarus, 2011, 216, 426-439.	2.5	85
53	Near-equilibrium isotope fractionation during planetesimal evaporation. Icarus, 2019, 323, 1-15.	2.5	84
54	Tectonics and water on Europa. Nature, 2000, 405, 637-637.	27.8	83

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55	The global shape of Europa: Constraints on lateral shell thickness variations. Icarus, 2007, 191, 183-192.	2.5	83
56	Dunes on Pluto. Science, 2018, 360, 992-997.	12.6	81
57	On the origins of band topography, Europa. Icarus, 2003, 166, 21-32.	2.5	80
58	Estimates of Europa's ice shell thickness from elastically-supported topography. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	80
59	Formation of the Orientale lunar multiring basin. Science, 2016, 354, 441-444.	12.6	78
60	The small satellites of Pluto as observed by New Horizons. Science, 2016, 351, aae0030.	12.6	78
61	Stresses generated in cooling viscoelastic ice shells: Application to Europa. Journal of Geophysical Research, 2004, 109, .	3.3	75
62	Basins, fractures and volcanoes: Global cartography and topography of Pluto from New Horizons. Icarus, 2018, 314, 400-433.	2.5	75
63	Detection, Analysis, and Removal of Glitches From InSight's Seismic Data From Mars. Earth and Space Science, 2020, 7, e2020EA001317.	2.6	75
64	Depth of faulting on Mercury: Implications for heat flux and crustal and effective elastic thickness. Geophysical Research Letters, 2004, 31, .	4.0	73
65	A rigid and weathered ice shell on Titan. Nature, 2013, 500, 550-552.	27.8	71
66	The long-term stability of a possible aqueous ammonium sulfate ocean inside Titan. Icarus, 2008, 197, 137-151.	2.5	69
67	Long-lived magnetism from solidification-driven convection on the pallasite parent body. Nature, 2015, 517, 472-475.	27.8	68
68	The role of episodic overturn in generating the surface geology and heat flow on Enceladus. Nature Geoscience, 2010, 3, 88-91.	12.9	67
69	Isotopic outcomes of N-body accretion simulations: Constraints on equilibration processes during large impacts from Hf/W observations. Earth and Planetary Science Letters, 2006, 243, 26-43.	4.4	66
70	TIDALLY MODULATED ERUPTIONS ON ENCELADUS:CASSINIISS OBSERVATIONS AND MODELS. Astronomical Journal, 2014, 148, 46.	4.7	66
71	Dike intrusion as a possible cause of linear Martian magnetic anomalies. Geology, 2000, 28, 391.	4.4	65
72	True polar wander on Europa from global-scale small-circle depressions. Nature, 2008, 453, 368-371.	27.8	65

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73	Orbital apocenter is not a sufficient condition for HST/STIS detection of Europaâ€™s water vapor aurora. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5123-32.	7.1	65
74	Enceladus: An Active Cryovolcanic Satellite. , 2009, , 683-724.		65
75	Growth of the hemispheric dichotomy and the cessation of plate tectonics on Mars. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	64
76	Five new and three improved mutual orbits of transneptunian binaries. Icarus, 2011, 213, 678-692.	2.5	64
77	The fractured Moon: Production and saturation of porosity in the lunar highlands from impact cratering. Geophysical Research Letters, 2015, 42, 6939-6944.	4.0	63
78	Causes, characteristics and consequences of convective diapirism on Europa. Geophysical Research Letters, 2002, 29, 24-1-24-4.	4.0	62
79	Decline of the lunar core dynamo. Earth and Planetary Science Letters, 2014, 404, 89-97.	4.4	62
80	A thermochemical boundary layer at the base of Earth's outer core and independent estimate of core heat flux. Geophysical Journal International, 2008, 174, 1007-1018.	2.4	61
81	Powering Tritonâ€™s recent geological activity by obliquity tides: Implications for Pluto geology. Icarus, 2015, 246, 2-10.	2.5	61
82	Constraints on the depth of magnetized crust on Mars from impact craters. Journal of Geophysical Research, 2001, 106, 12315-12323.	3.3	60
83	Plutoâ€™s interaction with its space environment: Solar wind, energetic particles, and dust. Science, 2016, 351, aad9045.	12.6	60
84	Geophysical implications of the long-wavelength topography of the Saturnian satellites. Journal of Geophysical Research, 2011, 116, .	3.3	59
85	Normal faulting on Europa: implications for ice shell properties. Journal of Structural Geology, 2006, 28, 2194-2203.	2.3	57
86	Martian post-impact hydrothermal systems incorporating freezing. Icarus, 2010, 208, 101-117.	2.5	57
87	Tungsten isotopic evolution during late-stage accretion: Constraints on Earthâ€“Moon equilibration. Earth and Planetary Science Letters, 2010, 292, 363-370.	4.4	57
88	GRAIL, LLR, and LOLA constraints on the interior structure of the Moon. Geophysical Research Letters, 2016, 43, 8365-8375.	4.0	57
89	Ocean tidal heating in icy satellites with solid shells. Icarus, 2018, 312, 208-230.	2.5	56
90	Obliquity tides do not significantly heat Enceladus. Icarus, 2011, 214, 779-781.	2.5	55

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91	Dissipation at tidal and seismic frequencies in a meltâ€free Moon. Journal of Geophysical Research, 2012, 117, .	3.3	55
92	The tidalâ€“rotational shape of the Moon and evidence for polar wander. Nature, 2014, 512, 181-184.	27.8	55
93	Tidal dissipation in the lunar magma ocean and its effect on the early evolution of the Earthâ€“Moon system. Icarus, 2016, 275, 132-142.	2.5	55
94	Elastic Thickness Estimates for Venus from Line of Sight Accelerations. Icarus, 1997, 130, 198-216.	2.5	54
95	Effective elastic thickness and heat flux estimates on Ganymede. Geophysical Research Letters, 2002, 29, 62-1.	4.0	53
96	Tectonic patterns on reoriented and despun planetary bodies. Icarus, 2008, 195, 459-473.	2.5	53
97	Geological mapping of Sputnik Planitia on Pluto. Icarus, 2017, 287, 261-286.	2.5	52
98	Comparisons between the rift systems of East Africa, Earth and Beta Regio, Venus. Earth and Planetary Science Letters, 1996, 143, 183-195.	4.4	51
99	Sublimation as a landform-shaping process on Pluto. Icarus, 2017, 287, 320-333.	2.5	51
100	Preimpact porosity controls the gravity signature of lunar craters. Geophysical Research Letters, 2015, 42, 9711-9716.	4.0	50
101	Modelling plume-related uplift, gravity and melting on Venus. Earth and Planetary Science Letters, 1996, 145, 109-123.	4.4	47
102	Bladed Terrain on Pluto: Possible origins and evolution. Icarus, 2018, 300, 129-144.	2.5	47
103	Using the density of Kuiper Belt Objects to constrain their composition and formation history. Icarus, 2019, 326, 10-17.	2.5	47
104	Paleomagnetism indicates that primary magnetite in zircon records a strong Hadean geodynamo. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2309-2318.	7.1	46
105	Structure and Formation of the Lunar Farside Highlands. Science, 2010, 330, 949-951.	12.6	45
106	InSight Constraints on the Global Character of the Martian Crust. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	45
107	A shear heating origin for ridges on Triton. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	44
108	Impact-driven ice loss in outer Solar System satellites: Consequences for the Late Heavy Bombardment. Icarus, 2012, 219, 508-510.	2.5	44

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109	The formation of Charonâ€™s red poles from seasonally cold-trapped volatiles. Nature, 2016, 539, 65-68.	27.8	44
110	Admittance estimates of mean crustal thickness and density at the Martian hemispheric dichotomy. Journal of Geophysical Research, 2002, 107, 27-1-27-6.	3.3	43
111	Dissipation at tidal and seismic frequencies in a meltâ€free, anhydrousâ€‰Mars. Journal of Geophysical Research E: Planets, 2013, 118, 2558-2569.	3.6	43
112	Forced obliquity and moments of inertia of Titan. Icarus, 2008, 196, 293-297.	2.5	42
113	Formation of Earthâ€™s Core. , 2007, , 51-90.		42
114	Potential Pitfalls in the Analysis and Structural Interpretation of Seismic Data from the Mars InSight Mission. Bulletin of the Seismological Society of America, 2021, 111, 2982-3002.	2.3	42
115	Rotational dynamics and internal structure of Titan. Icarus, 2011, 214, 351-355.	2.5	41
116	Timing of water plume eruptions on Enceladus explained by interior viscosity structure. Nature Geoscience, 2015, 8, 601-604.	12.9	41
117	Furrow flexure and ancient heat flux on Ganymede. Geophysical Research Letters, 2004, 31, .	4.0	40
118	Energetics of asteroid dynamos and the role of compositional convection. Geophysical Research Letters, 2009, 36, .	4.0	40
119	Gravity and tectonic patterns of Mercury: Effect of tidal deformation, spinâ€orbit resonance, nonzero eccentricity, despinning, and reorientation. Journal of Geophysical Research, 2009, 114, .	3.3	40
120	Convectionâ€driven compaction as a possible origin of Enceladus's long wavelength topography. Journal of Geophysical Research E: Planets, 2013, 118, 908-915.	3.6	40
121	A test for Io's magma ocean: Modeling tidal dissipation with a partially molten mantle. Journal of Geophysical Research E: Planets, 2016, 121, 2211-2224.	3.6	40
122	Formation of Earthâ€™s Core. , 2007, , 51-90.		39
123	Global drainage patterns and the origins of topographic relief on Earth, Mars, and Titan. Science, 2017, 356, 727-731.	12.6	39
124	Gravity field of the Orientale basin from the Gravity Recovery and Interior Laboratory Mission. Science, 2016, 354, 438-441.	12.6	38
125	Modeling glacial flow on and onto Plutoâ€™s Sputnik Planitia. Icarus, 2017, 287, 301-319.	2.5	38
126	Extensional troughs in the Caloris Basin of Mercury: Evidence of lateral crustal flow. Geology, 2005, 33, 669-672.	4.4	37

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127	Recent orbital evolution and the internal structures of Enceladus and Dione. Icarus, 2009, 204, 597-609.	2.5	37
128	Tidal resonance in icy satellites with subsurface oceans. Journal of Geophysical Research E: Planets, 2015, 120, 1528-1542.	3.6	35
129	Implications of the observed Plutoâ€“Charon density contrast. Icarus, 2018, 309, 207-219.	2.5	35
130	HUBBLE SPACE TELESCOPE/ADVANCED CAMERA FOR SURVEYS OBSERVATIONS OF EUROPA'S ATMOSPHERIC ULTRAVIOLET EMISSION AT EASTERN ELONGATION. Astrophysical Journal, 2011, 738, 153.	4.5	34
131	Rhea gravity field and interior modeling from Cassini data analysis. Icarus, 2016, 264, 264-273.	2.5	34
132	Icy Satellites: Geological Evolution and Surface Processes. , 2009, , 637-681.		34
133	Extensional troughs in the Caloris Basin of Mercury: Evidence of lateral crustal flow. Geology, 2005, 33, 669.	4.4	34
134	Thermal and Compositional Evolution of the Core. , 2015, , 201-219.		33
135	Tectonic consequences of Martian dichotomy modification by lower-crustal flow and erosion. Geology, 2005, 33, 533.	4.4	32
136	Thermal and topographic tests of Europa chaos formation models from Galileo E15 observations. Icarus, 2005, 177, 327-340.	2.5	32
137	Reorientation of icy satellites by impact basins. Geophysical Research Letters, 2007, 34, .	4.0	31
138	Implications from Ithaca Chasma for the thermal and orbital history of Tethys. Geophysical Research Letters, 2008, 35, .	4.0	31
139	Tectonics of the outer planet satellites. , 2009, , 264-350.		30
140	Planetary Reorientation. Annual Review of Earth and Planetary Sciences, 2014, 42, 605-634.	11.0	30
141	The relative timing of Lunar Magma Ocean solidification and the Late Heavy Bombardment inferred from highly degraded impact basin structures. Icarus, 2015, 250, 492-503.	2.5	30
142	Charon tectonics. Icarus, 2017, 287, 161-174.	2.5	30
143	Flexure of Venusian lithosphere measured from residual topography and gravity. Journal of Geophysical Research, 2002, 107, 2-1.	3.3	29
144	Nearâ€surface heating on Enceladus and the south polar thermal anomaly. Geophysical Research Letters, 2008, 35, .	4.0	29

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145	Flexure on Dione: Investigating subsurface structure and thermal history. Icarus, 2013, 223, 418-422.	2.5	29
146	Impact disruption of gravity-dominated bodies: New simulation data and scaling. Icarus, 2016, 275, 85-96.	2.5	29
147	Breaking up is hard to do: Global cartography and topography of Pluto's mid-sized icy Moon Charon from New Horizons. Icarus, 2018, 315, 124-145.	2.5	29
148	Non-Newtonian topographic relaxation on Europa. Icarus, 2004, 168, 205-208.	2.5	27
149	Strain at radially fractured centers on Venus. Journal of Geophysical Research, 2005, 110, .	3.3	27
150	Astronomical context of Solar System formation from molybdenum isotopes in meteorite inclusions. Science, 2020, 370, 837-840.	12.6	27
151	Nucleosynthetic Pt isotope anomalies and the Hf-W chronology of core formation in inner and outer solar system planetesimals. Earth and Planetary Science Letters, 2021, 576, 117211.	4.4	27
152	Rotational stability of tidally deformed planetary bodies. Journal of Geophysical Research, 2007, 112, .	3.3	26
153	Pallasite paleomagnetism: Quiescence of a core dynamo. Earth and Planetary Science Letters, 2016, 441, 103-112.	4.4	26
154	The nature and origin of Charon's smooth plains. Icarus, 2019, 323, 16-32.	2.5	26
155	The formation of Tharsis on Mars: What the lineâ€ofâ€sight gravity is telling us. Journal of Geophysical Research, 2008, 113, .	3.3	25
156	Seismological implications of a lithospheric low seismic velocity zone in Mars. Physics of the Earth and Planetary Interiors, 2015, 240, 132-141.	1.9	25
157	Interior thermal state of Enceladus inferred from the viscoelastic state of the ice shell. Icarus, 2017, 284, 387-393.	2.5	25
158	Energetics of the Core. , 2007, , 31-65.		25
159	Was Venus Ever Habitable? Constraints from a Coupled Interiorâ€“Atmosphereâ€“Redox Evolution Model. Planetary Science Journal, 2021, 2, 216.	3.6	25
160	Powering Mercury's dynamo. Geophysical Research Letters, 2007, 34, .	4.0	24
161	Role of impact excavation in distributing clays over Noachian surfaces. Journal of Geophysical Research, 2011, 116, .	3.3	24
162	Constraints on martian lobate debris apron evolution and rheology from numerical modeling of ice flow. Icarus, 2011, 214, 246-257.	2.5	24

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163	Disruption and reaccretion of midsized moons during an outer solar system Late Heavy Bombardment. Geophysical Research Letters, 2015, 42, 256-263.	4.0	24
164	Bulk chemical and Hfâ€“W isotopic consequences of incomplete accretion during planet formation. Icarus, 2015, 245, 145-152.	2.5	24
165	Constraints on asteroid magnetic field evolution and the radii of meteorite parent bodies from thermal modelling. Earth and Planetary Science Letters, 2019, 521, 68-78.	4.4	24
166	Variability in Io's Volcanism on Timescales of Periodic Orbital Changes. Geophysical Research Letters, 2019, 46, 6327-6332.	4.0	24
167	Updated Europa gravity field and interior structure from a reanalysis of Galileo tracking data. Icarus, 2021, 358, 114187.	2.5	24
168	Dynamics of rifting and modes of extension on icy satellites. Journal of Geophysical Research, 2004, 109, .	3.3	23
169	Geophysical implications of the longâ€wavelength topography of Rhea. Journal of Geophysical Research, 2010, 115, .	3.3	23
170	Forced obliquities and moments of inertia of Ceres and Vesta. Icarus, 2011, 213, 496-509.	2.5	23
171	Impact basin relaxation at Iapetus. Icarus, 2011, 214, 82-90.	2.5	23
172	Constraining the crustal thickness on Mercury from viscous topographic relaxation. Geophysical Research Letters, 2002, 29, 7-1-7-4.	4.0	22
173	Elastic thickness and heat flux estimates for the uranian satellite Ariel. Icarus, 2015, 250, 116-122.	2.5	22
174	Evidence for a hot start and early ocean formation on Pluto. Nature Geoscience, 2020, 13, 468-472.	12.9	22
175	Effects of core formation on the Hfâ€“W isotopic composition of the Earth and dating of the Moon-forming impact. Earth and Planetary Science Letters, 2018, 499, 257-265.	4.4	21
176	Paleomagnetic Evidence for a Partially Differentiated Ordinary Chondrite Parent Asteroid. Journal of Geophysical Research E: Planets, 2019, 124, 1880-1898.	3.6	21
177	Constraints on Thermal History of Mars From Depth of Pore Closure Below InSight. Geophysical Research Letters, 2020, 47, e2020GL088653.	4.0	21
178	Lunar impact history constrained by GRAIL-derived basin relaxation measurements. Icarus, 2018, 314, 50-63.	2.5	20
179	The Topâ€Down Solidification of Iron Asteroids Driving Dynamo Evolution. Journal of Geophysical Research E: Planets, 2019, 124, 1331-1356.	3.6	20
180	The Tides of Enceladus' Porous Core. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	20

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181	Surface, Subsurface and Atmosphere Exchanges onÂtheÂSatellites ofÂtheÂOuter Solar System. Space Science Reviews, 2010, 153, 375-410.	8.1	19
182	Radial mixing and Ruâ€“Mo isotope systematics under different accretion scenarios. Earth and Planetary Science Letters, 2018, 482, 105-114.	4.4	19
183	Tidal dissipation in rubble-pile asteroids. Icarus, 2019, 321, 715-721.	2.5	19
184	Ferrovolcanism: Iron Volcanism on Metallic Asteroids. Geophysical Research Letters, 2019, 46, 5055-5064.	4.0	19
185	The influence of imperfect accretion and radial mixing on ice:rock ratios in the Galilean satellites. Icarus, 2013, 225, 390-402.	2.5	18
186	Heat Production and Tidally Driven Fluid Flow in the Permeable Core of Enceladus. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006209.	3.6	18
187	Oxygen False Positives on Habitable Zone Planets Around Sunâ€Like Stars. AGU Advances, 2021, 2, e2020AV000294.	5.4	18
188	Channel slope reversal near the Martian dichotomy boundary: Testing tectonic hypotheses. Geomorphology, 2015, 240, 121-136.	2.6	16
189	Effects of mass transfer between Martian satellites on surface geology. Icarus, 2016, 267, 220-231.	2.5	16
190	Explaining the Galilean Satellitesâ€™ Density Gradient by Hydrodynamic Escape. Astrophysical Journal Letters, 2020, 897, L43.	8.3	16
191	A note on the possibility of subsurface oceans on the uranian satellites. Icarus, 2022, 373, 114776.	2.5	16
192	Convective thermal evolution of the upper mantles of Earth and Venus. Geophysical Research Letters, 1997, 24, 1539-1542.	4.0	15
193	An experimental and numerical study of surface tension-driven melt flow. Earth and Planetary Science Letters, 2008, 267, 548-557.	4.4	15
194	Numerical modeling of Martian gully sediment transport: Testing the fluvial hypothesis. Journal of Geophysical Research, 2010, 115, .	3.3	15
195	Science goals and mission concept for the future exploration of Titan and Enceladus. Planetary and Space Science, 2014, 104, 59-77.	1.7	15
196	Fast grain growth of olivine in liquid Feâ€“S and the formation of pallasites with rounded olivine grains. Geochimica Et Cosmochimica Acta, 2015, 162, 259-275.	3.9	15
197	Triton: Fascinating Moon, Likely Ocean World, Compelling Destination!. Planetary Science Journal, 2021, 2, 137.	3.6	15
198	Large-scale cryovolcanic resurfacing on Pluto. Nature Communications, 2022, 13, 1542.	12.8	15

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199	A Recipe for the Geophysical Exploration of Enceladus. Planetary Science Journal, 2021, 2, 157.	3.6	14
200	Plume Origins and Plumbing (Ocean to Surface). , 2018, , .		14
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