

Andreas Nathues

List of Publications by Year in descending order

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112
papers

5,433
citations

76326

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85541

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113
all docs

113
docs citations

113
times ranked

2216
citing authors

#	ARTICLE	IF	CITATIONS
1	Dawn at Vesta: Testing the Protoplanetary Paradigm. <i>Science</i> , 2012, 336, 684-686.	12.6	422
2	The Dawn Framing Camera. <i>Space Science Reviews</i> , 2011, 163, 263-327.	8.1	248
3	Spectroscopic Characterization of Mineralogy and Its Diversity Across Vesta. <i>Science</i> , 2012, 336, 697-700.	12.6	240
4	Vesta's Shape and Morphology. <i>Science</i> , 2012, 336, 687-690.	12.6	222
5	Dawn arrives at Ceres: Exploration of a small, volatile-rich world. <i>Science</i> , 2016, 353, 1008-1010.	12.6	178
6	A partially differentiated interior for (1) Ceres deduced from its gravity field and shape. <i>Nature</i> , 2016, 537, 515-517.	27.8	169
7	Color and Albedo Heterogeneity of Vesta from Dawn. <i>Science</i> , 2012, 336, 700-704.	12.6	166
8	Cryovolcanism on Ceres. <i>Science</i> , 2016, 353, .	12.6	164
9	Delivery of dark material to Vesta via carbonaceous chondritic impacts. <i>Icarus</i> , 2012, 221, 544-559.	2.5	152
10	Dark material on Vesta from the infall of carbonaceous volatile-rich material. <i>Nature</i> , 2012, 491, 83-86.	27.8	151
11	Phase reddening on near-Earth asteroids: Implications for mineralogical analysis, space weathering and taxonomic classification. <i>Icarus</i> , 2012, 220, 36-50.	2.5	150
12	Cratering on Ceres: Implications for its crust and evolution. <i>Science</i> , 2016, 353, .	12.6	135
13	Distinctive space weathering on Vesta from regolith mixing processes. <i>Nature</i> , 2012, 491, 79-82.	27.8	120
14	Sublimation in bright spots on (1) Ceres. <i>Nature</i> , 2015, 528, 237-240.	27.8	116
15	The geomorphology of Ceres. <i>Science</i> , 2016, 353, .	12.6	109
16	Pitted Terrain on Vesta and Implications for the Presence of Volatiles. <i>Science</i> , 2012, 338, 246-249.	12.6	91
17	SMART-1 mission to the Moon: Status, first results and goals. <i>Advances in Space Research</i> , 2006, 37, 6-13.	2.6	84
18	Composition of the Rheasilvia basin, a window into Vesta's interior. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 335-346.	3.6	84

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19	Geomorphological evidence for ground ice on dwarf planet Ceres. <i>Nature Geoscience</i> , 2017, 10, 338-343.	12.9	83
20	The cratering record, chronology and surface ages of (4) Vesta in comparison to smaller asteroids and the ages of HED meteorites. <i>Planetary and Space Science</i> , 2014, 103, 104-130.	1.7	80
21	Photometric, spectral phase and temperature effects on 4 Vesta and HED meteorites: Implications for the Dawn mission. <i>Icarus</i> , 2012, 217, 153-168.	2.5	76
22	MarcoPolo-R near earth asteroid sample return mission. <i>Experimental Astronomy</i> , 2012, 33, 645-684.	3.7	72
23	Surface water-ice deposits in the northern shadowed regions of Ceres. <i>Nature Astronomy</i> , 2017, 1, .	10.1	70
24	Global photometric properties of Asteroid (4) Vesta observed with Dawn Framing Camera. <i>Icarus</i> , 2013, 226, 1252-1274.	2.5	68
25	Dawn completes its mission at 4 Vesta. <i>Meteoritics and Planetary Science</i> , 2013, 48, 2076-2089.	1.6	54
26	Thermal measurements of dark and bright surface features on Vesta as derived from Dawn/VIR. <i>Icarus</i> , 2014, 240, 36-57.	2.5	52
27	High-resolution shape model of Ceres from stereophotoclinometry using Dawn Imaging Data. <i>Icarus</i> , 2019, 319, 812-827.	2.5	51
28	Evolution of Occator Crater on (1) Ceres. <i>Astronomical Journal</i> , 2017, 153, 112.	4.7	50
29	Impact-driven mobilization of deep crustal brines on dwarf planet Ceres. <i>Nature Astronomy</i> , 2020, 4, 741-747.	10.1	50
30	Photometry and models of eight near-Earth asteroids. <i>Icarus</i> , 2004, 167, 178-196.	2.5	49
31	Spectral reflectance properties of HED meteorites + CM2 carbonaceous chondrites: Comparison to HED grain size and compositional variations and implications for the nature of low-albedo features on Asteroid 4 Vesta. <i>Icarus</i> , 2013, 223, 850-877.	2.5	49
32	Compositional heterogeneity of Asteroid 4 Vesta's southern hemisphere: Implications for the Dawn mission. <i>Icarus</i> , 2010, 210, 693-706.	2.5	48
33	Olivine or impact melt: Nature of the "Orange" material on Vesta from Dawn. <i>Icarus</i> , 2013, 226, 1568-1594.	2.5	47
34	The formation and evolution of bright spots on Ceres. <i>Icarus</i> , 2019, 320, 188-201.	2.5	47
35	Exposed H ₂ O-rich areas detected on Ceres with the dawn visible and infrared mapping spectrometer. <i>Icarus</i> , 2019, 318, 22-41.	2.5	47
36	Surface composition and taxonomic classification of a group of near-Earth and Mars-crossing asteroids. <i>Icarus</i> , 2013, 225, 131-140.	2.5	42

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37	SURFACE ALBEDO AND SPECTRAL VARIABILITY OF CERES. <i>Astrophysical Journal Letters</i> , 2016, 817, L22.	8.3	42
38	FC colour images of dwarf planet Ceres reveal a complicated geological history. <i>Planetary and Space Science</i> , 2016, 134, 122-127.	1.7	42
39	Bright carbonate surfaces on Ceres as remnants of salt-rich water fountains. <i>Icarus</i> , 2019, 320, 39-48.	2.5	42
40	Crater depth-to-diameter distribution and surface properties of (4) Vesta. <i>Planetary and Space Science</i> , 2014, 103, 57-65.	1.7	41
41	Comparing Dawn, Hubble Space Telescope, and ground-based interpretations of (4) Vesta. <i>Icarus</i> , 2013, 226, 1103-1114.	2.5	37
42	In-flight calibration of the Dawn Framing Camera. <i>Icarus</i> , 2013, 226, 1304-1317.	2.5	36
43	The geology of the Marcia quadrangle of asteroid Vesta: Assessing the effects of large, young craters. <i>Icarus</i> , 2014, 244, 74-88.	2.5	36
44	Detection of serpentine in exogenic carbonaceous chondrite material on Vesta from Dawn FC data. <i>Icarus</i> , 2014, 239, 222-237.	2.5	34
45	Geologic constraints on the origin of red organic-rich material on Ceres. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1983-1998.	1.6	34
46	SMART-1 mission to the moon: Technology and science goals. <i>Advances in Space Research</i> , 2003, 31, 2323-2333.	2.6	33
47	The unique geomorphology and physical properties of the Vestalia Terra plateau. <i>Icarus</i> , 2014, 244, 89-103.	2.5	33
48	Exploring exogenic sources for the olivine on Asteroid (4) Vesta. <i>Icarus</i> , 2015, 258, 483-499.	2.5	33
49	A Global Inventory of Ice-Related Morphological Features on Dwarf Planet Ceres: Implications for the Evolution and Current State of the Cryosphere. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 1650-1689.	3.6	33
50	Exploring the asteroid belt with ion propulsion: Dawn mission history, status and plans. <i>Advances in Space Research</i> , 2007, 40, 193-201.	2.6	32
51	Recent cryovolcanic activity at Occator crater on Ceres. <i>Nature Astronomy</i> , 2020, 4, 794-801.	10.1	32
52	Spectral study of the Eunomia asteroid family. <i>Icarus</i> , 2005, 175, 452-463.	2.5	30
53	How to characterize terrains on 4 Vesta using Dawn Framing Camera color bands?. <i>Icarus</i> , 2011, 216, 376-386.	2.5	28
54	Exogenic olivine on Vesta from Dawn Framing Camera color data. <i>Icarus</i> , 2015, 258, 467-482.	2.5	28

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55	The geology of the Kerwan quadrangle of dwarf planet Ceres: Investigating Ceres's oldest, largest impact basin. <i>Icarus</i> , 2018, 316, 99-113.	2.5	28
56	Morphology and formation ages of mid-sized post-Rheasilvia craters – Geology of quadrangle Tuccia, Vesta. <i>Icarus</i> , 2014, 244, 133-157.	2.5	27
57	First fragment of Asteroid 4 Vesta's mantle detected. <i>Icarus</i> , 2011, 212, 175-179.	2.5	26
58	Lithologic mapping of HED terrains on Vesta using Dawn Framing Camera color data. <i>Meteoritics and Planetary Science</i> , 2013, 48, 2199-2210.	1.6	26
59	Spectral analysis of the bright materials on the asteroid Vesta. <i>Icarus</i> , 2014, 240, 73-85.	2.5	26
60	The geology of the occator quadrangle of dwarf planet Ceres: Floor-fractured craters and other geomorphic evidence of cryomagmatism. <i>Icarus</i> , 2018, 316, 128-139.	2.5	26
61	Spectral study of the Eunomia asteroid family Part II: The small bodies. <i>Icarus</i> , 2010, 208, 252-275.	2.5	23
62	Lunar iron abundance determination using the 2.14µm absorption band parameters. <i>Icarus</i> , 2012, 220, 51-64.	2.5	23
63	HAZE AT OCCATOR CRATER ON DWARF PLANET CERES. <i>Astrophysical Journal Letters</i> , 2016, 833, L25.	8.3	23
64	Occator crater in color at highest spatial resolution. <i>Icarus</i> , 2019, 320, 24-38.	2.5	22
65	Mineralogy and temperature of crater Haulani on Ceres. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1902-1924.	1.6	21
66	The Ac-5 (Fejokoo) quadrangle of Ceres: Geologic map and geomorphological evidence for ground ice mediated surface processes. <i>Icarus</i> , 2018, 316, 63-83.	2.5	21
67	Ceres's Ezinu quadrangle: a heavily cratered region with evidence for localized subsurface water ice and the context of Occator crater. <i>Icarus</i> , 2018, 316, 46-62.	2.5	21
68	Spectrophotometric modeling and mapping of Ceres. <i>Icarus</i> , 2019, 322, 144-167.	2.5	21
69	Mineralogical characterization of potential targets for the ASTEX mission scenario. <i>Planetary and Space Science</i> , 2011, 59, 772-778.	1.7	20
70	Olivine-rich exposures at Bellicia and Arruntia craters on (4) Vesta from Dawn Framing Camera color filters. <i>Meteoritics and Planetary Science</i> , 2014, 49, 1831-1850.	1.6	20
71	Photometric properties of Ceres from telescopic observations using Dawn Framing Camera color filters. <i>Icarus</i> , 2015, 260, 332-345.	2.5	20
72	Geologic mapping of the Ac-2 Coniraya quadrangle of Ceres from NASA's Dawn mission: Implications for a heterogeneously composed crust. <i>Icarus</i> , 2018, 316, 28-45.	2.5	20

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73	Spectral diversity and photometric behavior of main-belt and near-Earth vestoids and (4) Vesta: A study in preparation for the Dawn encounter. <i>Icarus</i> , 2014, 235, 60-74.	2.5	19
74	Impact heat driven volatile redistribution at Occator crater on Ceres as a comparative planetary process. <i>Nature Communications</i> , 2020, 11, 3679.	12.8	19
75	CASTAway: An asteroid main belt tour and survey. <i>Advances in Space Research</i> , 2018, 62, 1998-2025.	2.6	18
76	Oxo Crater on (1) Ceres: Geological History and the Role of Water-ice. <i>Astronomical Journal</i> , 2017, 154, 84.	4.7	17
77	Synthesis of the special issue: The formation and evolution of Ceres's Occator crater. <i>Icarus</i> , 2019, 320, 213-225.	2.5	17
78	An in-depth look at the lunar crater Copernicus: Exposed mineralogy by high-resolution near-infrared spectroscopy. <i>Icarus</i> , 2011, 213, 43-63.	2.5	16
79	Geological mapping of the Ac-10 Rongo Quadrangle of Ceres. <i>Icarus</i> , 2018, 316, 140-153.	2.5	16
80	Scientific objectives and selection of targets for the SMART-1 Infrared Spectrometer (SIR). <i>Planetary and Space Science</i> , 2004, 52, 1261-1285.	1.7	15
81	Imprint of the Rheasilvia impact on Vesta – Geologic mapping of quadrangles Gegania and Lucaria. <i>Icarus</i> , 2014, 244, 60-73.	2.5	15
82	Mineralogical analysis of the Oppia quadrangle of asteroid (4) Vesta: Evidence for occurrence of moderate-reflectance hydrated minerals. <i>Icarus</i> , 2015, 259, 129-149.	2.5	15
83	Post-impact cryo-hydrologic formation of small mounds and hills in Ceres's Occator crater. <i>Nature Geoscience</i> , 2020, 13, 605-610.	12.9	15
84	Landslides on Ceres: Diversity and Geologic Context. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 3329-3343.	3.6	14
85	Spectral properties and geology of bright and dark material on dwarf planet Ceres. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1961-1982.	1.6	13
86	Near infrared spectroscopy of HED meteorites: Effects of viewing geometry and compositional variations. <i>Icarus</i> , 2015, 258, 384-401.	2.5	12
87	Effects of viewing geometry, aggregation state, and particle size on reflectance spectra of the Murchison CM2 chondrite deconvolved to Dawn FC band passes. <i>Icarus</i> , 2016, 266, 235-248.	2.5	11
88	Mineralogical analysis of the Ac-H-6 Haulani quadrangle of the dwarf planet Ceres. <i>Icarus</i> , 2019, 318, 170-187.	2.5	11
89	SMART-1 after lunar capture: First results and perspectives. <i>Journal of Earth System Science</i> , 2005, 114, 689-697.	1.3	9
90	Vesta's missing moons: Comprehensive search for natural satellites of Vesta by the Dawn spacecraft. <i>Icarus</i> , 2015, 257, 207-216.	2.5	9

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91	The 2.5–5.1 μ m reflectance spectra of HED meteorites and their constituent minerals: Implications for Dawn. <i>Icarus</i> , 2013, 225, 581-601.	2.5	8
92	Mineralogical analysis of quadrangle Ac-H-10 Rongo on the dwarf planet Ceres. <i>Icarus</i> , 2019, 318, 212-229.	2.5	8
93	PHASE ANGLE EFFECTS ON 3 μ m ABSORPTION BAND ON CERES: IMPLICATIONS FOR DAWN MISSION. <i>Astrophysical Journal Letters</i> , 2015, 804, L13.	8.3	7
94	ASTEX: An in situ exploration mission to two near-Earth asteroids. <i>Advances in Space Research</i> , 2010, 45, 169-182.	2.6	6
95	Stray light calibration of the Dawn Framing Camera. <i>Proceedings of SPIE</i> , 2013, , .	0.8	6
96	THE PHYSICAL CHARACTERIZATION OF THE POTENTIALLY HAZARDOUS ASTEROID 2004 BL86: A FRAGMENT OF A DIFFERENTIATED ASTEROID. <i>Astrophysical Journal</i> , 2015, 811, 65.	4.5	6
97	Dawn mission's search for satellites of Ceres: Intact protoplanets don't have satellites. <i>Icarus</i> , 2018, 316, 191-204.	2.5	6
98	Geology of Ceres' North Pole quadrangle with Dawn FC imaging data. <i>Icarus</i> , 2018, 316, 14-27.	2.5	6
99	Rotational properties of main belt asteroids: photoelectric and CCD observations of 15 objects. <i>Planetary and Space Science</i> , 1997, 45, 1423-1435.	1.7	5
100	Spectral parameters for Dawn FC color data: Carbonaceous chondrites and aqueous alteration products as potential cerean analog materials. <i>Icarus</i> , 2016, 265, 149-160.	2.5	5
101	GAUSS - genesis of asteroids and evolution of the solar system. <i>Experimental Astronomy</i> , 0, , 1.	3.7	5
102	Photometric observations and modelling of the asteroid 85 Io in conjunction with data from an occultation event during the 1995–96 apparition. Partly based on observations collected at the European Southern Observatory, La Silla, Chile. <i>Planetary and Space Science</i> , 1999, 47, 327-330.	1.7	4
103	A Study of Cybele Asteroids I. Spin Properties of Ten Asteroids. <i>Icarus</i> , 2001, 149, 190-197.	2.5	4
104	Vesta's Pinaría region: Original basaltic achondrite material derived from mixing upper and lower crust. <i>Icarus</i> , 2015, 259, 150-161.	2.5	4
105	Three-dimensional spectral analysis of compositional heterogeneity at Arruntia crater on (4) Vesta using Dawn FC. <i>Icarus</i> , 2016, 267, 344-363.	2.5	4
106	Science Drivers for the Future Exploration of Ceres: From Solar System Evolution to Ocean World Science. <i>Planetary Science Journal</i> , 2022, 3, 64.	3.6	4
107	Brine residues and organics in the Urvara basin on Ceres. <i>Nature Communications</i> , 2022, 13, 927.	12.8	3
108	Photometric Properties of Vesta. <i>Proceedings of the International Astronomical Union</i> , 2012, 10, 179-179.	0.0	2

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109	Unique Light Scattering at Occator's Faculae on (1) Ceres. <i>Astronomical Journal</i> , 2019, 158, 85.	4.7	2
110	Geology and colour of Kupalo crater on Ceres. <i>Planetary and Space Science</i> , 2022, 220, 105538.	1.7	1
111	Development of an Embedded CPU-Based Instrument Control Unit for the SIR-2 Instrument Onboard the Chandrayaan-1 Mission to the Moon. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2009, 47, 2836-2846.	6.3	0
112	Geomorphology of Ceres. , 2022, , 143-158.		0