Andreas Nathues

List of Publications by Year
in descending order

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112	5,433	76326	85541
papers	citations	40 h-index	71 g-index

113	113	113	2216
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Brine residues and organics in the Urvara basin on Ceres. Nature Communications, 2022, 13, 927.	12.8	3
2	Science Drivers for the Future Exploration of Ceres: From Solar System Evolution to Ocean World Science. Planetary Science Journal, 2022, 3, 64.	3.6	4
3	Geomorphology of Ceres. , 2022, , 143-158.		0
4	Geology and colour of Kupalo crater on Ceres. Planetary and Space Science, 2022, 220, 105538.	1.7	1
5	Impact heat driven volatile redistribution at Occator crater on Ceres as a comparative planetary process. Nature Communications, 2020, 11, 3679.	12.8	19
6	Recent cryovolcanic activity at Occator crater on Ceres. Nature Astronomy, 2020, 4, 794-801.	10.1	32
7	Impact-driven mobilization of deep crustal brines on dwarf planet Ceres. Nature Astronomy, 2020, 4, 741-747.	10.1	50
8	Post-impact cryo-hydrologic formation of small mounds and hills in Ceresâ€™s Occator crater. Nature Geoscience, 2020, 13, 605-610.	12.9	15
9	Landslides on Ceres: Diversity and Geologic Context. Journal of Geophysical Research E: Planets, 2019, 124, 3329-3343.	3.6	14
10	Unique Light Scattering at Occator's Faculae on (1) Ceres. Astronomical Journal, 2019, 158, 85.	4.7	2
11	Spectrophotometric modeling and mapping of Ceres. Icarus, 2019, 322, 144-167.	2.5	21
12	A Global Inventory of Iceâ€Related Morphological Features on Dwarf Planet Ceres: Implications for the Evolution and Current State of the Cryosphere. Journal of Geophysical Research E: Planets, 2019, 124, 1650-1689.	3.6	33
13	High-resolution shape model of Ceres from stereophotoclinometry using Dawn Imaging Data. Icarus, 2019, 319, 812-827.	2.5	51
14	Synthesis of the special issue: The formation and evolution of Ceresâ€™ Occator crater. Icarus, 2019, 320, 213-225.	2.5	17
15	Mineralogical analysis of the Ac-H-6 Haulani quadrangle of the dwarf planet Ceres. Icarus, 2019, 318, 170-187.	2.5	11
16	Mineralogical analysis of quadrangle Ac-H-10 Rongo on the dwarf planet Ceres. Icarus, 2019, 318, 212-229.	2.5	8
17	The formation and evolution of bright spots on Ceres. Icarus, 2019, 320, 188-201.	2.5	47
18	Bright carbonate surfaces on Ceres as remnants of salt-rich water fountains. Icarus, 2019, 320, 39-48.	2.5	42

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19	Occator crater in color at highest spatial resolution. Icarus, 2019, 320, 24-38.	2.5	22
20	Exposed H2O-rich areas detected on Ceres with the dawn visible and infrared mapping spectrometer. Icarus, 2019, 318, 22-41.	2.5	47
21	Mineralogy and temperature of crater Haulani on Ceres. Meteoritics and Planetary Science, 2018, 53, 1902-1924.	1.6	21
22	Dawn mission's search for satellites of Ceres: Intact protoplanets don't have satellites. Icarus, 2018, 316, 191-204.	2.5	6
23	Spectral properties and geology of bright and dark material on dwarf planet Ceres. Meteoritics and Planetary Science, 2018, 53, 1961-1982.	1.6	13
24	CASTAway: An asteroid main belt tour and survey. Advances in Space Research, 2018, 62, 1998-2025.	2.6	18
25	Geologic constraints on the origin of red organicâ€rich material on Ceres. Meteoritics and Planetary Science, 2018, 53, 1983-1998.	1.6	34
26	The geology of the occator quadrangle of dwarf planet Ceres: Floor-fractured craters and other geomorphic evidence of cryomagmatism. Icarus, 2018, 316, 128-139.	2.5	26
27	Geologic mapping of the Ac-2 Coniraya quadrangle of Ceres from NASA's Dawn mission: Implications for a heterogeneously composed crust. Icarus, 2018, 316, 28-45.	2.5	20
28	Geology of Ceresâ€™ North Pole quadrangle with Dawn FC imaging data. Icarus, 2018, 316, 14-27.	2.5	6
29	Geological mapping of the Ac-10 Rongo Quadrangle of Ceres. Icarus, 2018, 316, 140-153.	2.5	16
30	The Ac-5 (Fejokoo) quadrangle of Ceres: Geologic map and geomorphological evidence for ground ice mediated surface processes. Icarus, 2018, 316, 63-83.	2.5	21
31	Ceresâ€™ Ezinu quadrangle: a heavily cratered region with evidence for localized subsurface water ice and the context of Occator crater. Icarus, 2018, 316, 46-62.	2.5	21
32	The geology of the Kerwan quadrangle of dwarf planet Ceres: Investigating Ceresâ€™ oldest, largest impact basin. Icarus, 2018, 316, 99-113.	2.5	28
33	Evolution of Occator Crater on (1) Ceres. Astronomical Journal, 2017, 153, 112.	4.7	50
34	Geomorphological evidence for ground ice on dwarf planet Ceres. Nature Geoscience, 2017, 10, 338-343.	12.9	83
35	Surface water-ice deposits in the northern shadowed regions of Ceres. Nature Astronomy, 2017, 1, .	10.1	70
36	Oxo Crater on (1) Ceres: Geological History and the Role of Water-ice. Astronomical Journal, 2017, 154, 84.	4.7	17

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37	HAZE AT OCCATOR CRATER ON DWARF PLANET CERES. Astrophysical Journal Letters, 2016, 833, L25.	8.3	23
38	SURFACE ALBEDO AND SPECTRAL VARIABILITY OF CERES. Astrophysical Journal Letters, 2016, 817, L22.	8.3	42
39	Three-dimensional spectral analysis of compositional heterogeneity at Arruntia crater on (4) Vesta using Dawn FC. Icarus, 2016, 267, 344-363.	2.5	4
40	A partially differentiated interior for (1) Ceres deduced from its gravity field and shape. Nature, 2016, 537, 515-517.	27.8	169
41	Dawn arrives at Ceres: Exploration of a small, volatile-rich world. Science, 2016, 353, 1008-1010.	12.6	178
42	Cryovolcanism on Ceres. Science, 2016, 353, .	12.6	164
43	The geomorphology of Ceres. Science, 2016, 353, .	12.6	109
44	Cratering on Ceres: Implications for its crust and evolution. Science, 2016, 353, .	12.6	135
45	FC colour images of dwarf planet Ceres reveal a complicated geological history. Planetary and Space Science, 2016, 134, 122-127.	1.7	42
46	Spectral parameters for Dawn FC color data: Carbonaceous chondrites and aqueous alteration products as potential cerean analog materials. Icarus, 2016, 265, 149-160.	2.5	5
47	Effects of viewing geometry, aggregation state, and particle size on reflectance spectra of the Murchison CM2 chondrite deconvolved to Dawn FC band passes. Icarus, 2016, 266, 235-248.	2.5	11
48	THE PHYSICAL CHARACTERIZATION OF THE POTENTIALLY HAZARDOUS ASTEROID 2004 BL86: A FRAGMENT OF A DIFFERENTIATED ASTEROID. Astrophysical Journal, 2015, 811, 65.	4.5	6
49	Mineralogical analysis of the Oppia quadrangle of asteroid (4) Vesta: Evidence for occurrence of moderate-reflectance hydrated minerals. Icarus, 2015, 259, 129-149.	2.5	15
50	Near infrared spectroscopy of HED meteorites: Effects of viewing geometry and compositional variations. Icarus, 2015, 258, 384-401.	2.5	12
51	PHASE ANGLE EFFECTS ON 3 Î¼ m ABSORPTION BAND ON CERES: IMPLICATIONS FOR DAWN MISSION. Astrophysical Journal Letters, 2015, 804, L13.	8.3	7
52	Vestaâ€™s missing moons: Comprehensive search for natural satellites of Vesta by the Dawn spacecraft. Icarus, 2015, 257, 207-216.	2.5	9
53	Sublimation in bright spots on (1) Ceres. Nature, 2015, 528, 237-240.	27.8	116
54	Exogenic olivine on Vesta from Dawn Framing Camera color data. Icarus, 2015, 258, 467-482.	2.5	28

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55	Exploring exogenic sources for the olivine on Asteroid (4) Vesta. Icarus, 2015, 258, 483-499.	2.5	33
56	Vestaâ€™s Pinaria region: Original basaltic achondrite material derived from mixing upper and lower crust. Icarus, 2015, 259, 150-161.	2.5	4
57	Photometric properties of Ceres from telescopic observations using Dawn Framing Camera color filters. Icarus, 2015, 260, 332-345.	2.5	20
58	Olivineâ€•rich exposures at Bellicia and Arruntia craters on (4) Vesta from Dawn <scp>FC</scp>. Meteoritics and Planetary Science, 2014, 49, 1831-1850.	1.6	20
59	Thermal measurements of dark and bright surface features on Vesta as derived from Dawn/VIR. Icarus, 2014, 240, 36-57.	2.5	52
60	Imprint of the Rheasilvia impact on Vesta â€“ Geologic mapping of quadrangles Gegania and Lucaria. Icarus, 2014, 244, 60-73.	2.5	15
61	Detection of serpentine in exogenic carbonaceous chondrite material on Vesta from Dawn FC data. Icarus, 2014, 239, 222-237.	2.5	34
62	Crater depth-to-diameter distribution and surface properties of (4) vesta. Planetary and Space Science, 2014, 103, 57-65.	1.7	41
63	Morphology and formation ages of mid-sized post-Rheasilvia craters â€“ Geology of quadrangle Tuccia, Vesta. Icarus, 2014, 244, 133-157.	2.5	27
64	Spectral diversity and photometric behavior of main-belt and near-Earth vestoids and (4) Vesta: A study in preparation for the Dawn encounter. Icarus, 2014, 235, 60-74.	2.5	19
65	The unique geomorphology and physical properties of the Vestalia Terra plateau. Icarus, 2014, 244, 89-103.	2.5	33
66	The geology of the Marcia quadrangle of asteroid Vesta: Assessing the effects of large, young craters. Icarus, 2014, 244, 74-88.	2.5	36
67	Spectral analysis of the bright materials on the asteroid Vesta. Icarus, 2014, 240, 73-85.	2.5	26
68	The cratering record, chronology and surface ages of (4) Vesta in comparison to smaller asteroids and the ages of HED meteorites. Planetary and Space Science, 2014, 103, 104-130.	1.7	80
69	Global photometric properties of Asteroid (4) Vesta observed with Dawn Framing Camera. Icarus, 2013, 226, 1252-1274.	2.5	68
70	Stray light calibration of the Dawn Framing Camera. Proceedings of SPIE, 2013, , .	0.8	6
71	Comparing Dawn, Hubble Space Telescope, and ground-based interpretations of (4) Vesta. Icarus, 2013, 226, 1103-1114.	2.5	37
72	Olivine or impact melt: Nature of the â€œOrangeâ€•material on Vesta from Dawn. Icarus, 2013, 226, 1568-1594.	2.5	47

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73	The 2.5â€“5.1Î¼m reflectance spectra of HED meteorites and their constituent minerals: Implications for Dawn. Icarus, 2013, 225, 581-601.	2.5	8
74	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. Icarus, 2013, 223, 850-877.	2.5	49
75	In-flight calibration of the Dawn Framing Camera. Icarus, 2013, 226, 1304-1317.	2.5	36
76	Surface composition and taxonomic classification of a group of near-Earth and Mars-crossing asteroids. Icarus, 2013, 225, 131-140.	2.5	42
77	Dawn completes its mission at 4 Vesta. Meteoritics and Planetary Science, 2013, 48, 2076-2089.	1.6	54
78	Lithologic mapping of <scp>HED</scp> terrains on Vesta using Dawn Framing Camera color data. Meteoritics and Planetary Science, 2013, 48, 2199-2210.	1.6	26
79	Composition of the Rheasilvia basin, a window into Vesta's interior. Journal of Geophysical Research E: Planets, 2013, 118, 335-346.	3.6	84
80	Photometric Properties of Vesta. Proceedings of the International Astronomical Union, 2012, 10, 179-179.	0.0	2
81	Distinctive space weathering on Vesta from regolith mixing processes. Nature, 2012, 491, 79-82.	27.8	120
82	Dark material on Vesta from the infall of carbonaceous volatile-rich material. Nature, 2012, 491, 83-86.	27.8	151
83	Pitted Terrain on Vesta and Implications for the Presence of Volatiles. Science, 2012, 338, 246-249.	12.6	91
84	Delivery of dark material to Vesta via carbonaceous chondritic impacts. Icarus, 2012, 221, 544-559.	2.5	152
85	Dawn at Vesta: Testing the Protoplanetary Paradigm. Science, 2012, 336, 684-686.	12.6	422
86	Vestaâ€™s Shape and Morphology. Science, 2012, 336, 687-690.	12.6	222
87	Spectroscopic Characterization of Mineralogy and Its Diversity Across Vesta. Science, 2012, 336, 697-700.	12.6	240
88	Color and Albedo Heterogeneity of Vesta from Dawn. Science, 2012, 336, 700-704.	12.6	166
89	MarcoPolo-R near earth asteroid sample return mission. Experimental Astronomy, 2012, 33, 645-684.	3.7	72
90	Photometric, spectral phase and temperature effects on 4 Vesta and HED meteorites: Implications for the Dawn mission. Icarus, 2012, 217, 153-168.	2.5	76

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91	Phase reddening on near-Earth asteroids: Implications for mineralogical analysis, space weathering and taxonomic classification. Icarus, 2012, 220, 36-50.	2.5	150
92	Lunar iron abundance determination using the 2-Î¼m absorption band parameters. Icarus, 2012, 220, 51-64.	2.5	23
93	How to characterize terrains on 4 Vesta using Dawn Framing Camera color bands?. Icarus, 2011, 216, 376-386.	2.5	28
94	The Dawn Framing Camera. Space Science Reviews, 2011, 163, 263-327.	8.1	248
95	First fragment of Asteroid 4 Vestaâ€™s mantle detected. Icarus, 2011, 212, 175-179.	2.5	26
96	An in-depth look at the lunar crater Copernicus: Exposed mineralogy by high-resolution near-infrared spectroscopy. Icarus, 2011, 213, 43-63.	2.5	16
97	Mineralogical characterization of potential targets for the ASTEX mission scenario. Planetary and Space Science, 2011, 59, 772-778.	1.7	20
98	ASTEX: An in situ exploration mission to two near-Earth asteroids. Advances in Space Research, 2010, 45, 169-182.	2.6	6
99	Spectral study of the Eunomia asteroid family Part II: The small bodies. Icarus, 2010, 208, 252-275.	2.5	23
100	Compositional heterogeneity of Asteroid 4 Vestaâ€™s southern hemisphere: Implications for the Dawn mission. Icarus, 2010, 210, 693-706.	2.5	48
101	Development of an Embedded CPU-Based Instrument Control Unit for the SIR-2 Instrument Onboard the Chandrayaan-1 Mission to the Moon. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2836-2846.	6.3	0
102	Exploring the asteroid belt with ion propulsion: Dawn mission history, status and plans. Advances in Space Research, 2007, 40, 193-201.	2.6	32
103	SMART-1 mission to the Moon: Status, first results and goals. Advances in Space Research, 2006, 37, 6-13.	2.6	84
104	Spectral study of the Eunomia asteroid family. Icarus, 2005, 175, 452-463.	2.5	30
105	SMART-1 after lunar capture: First results and perspectives. Journal of Earth System Science, 2005, 114, 689-697.	1.3	9
106	Photometry and models of eight near-Earth asteroids. Icarus, 2004, 167, 178-196.	2.5	49
107	Scientific objectives and selection of targets for the SMART-1 Infrared Spectrometer (SIR). Planetary and Space Science, 2004, 52, 1261-1285.	1.7	15
108	SMART-1 mission to the moon: Technology and science goals. Advances in Space Research, 2003, 31, 2323-2333.	2.6	33

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109	A Study of Cybele Asteroids I. Spin Properties of Ten Asteroids. Icarus, 2001, 149, 190-197.	2.5	4
110	Photometric observations and modelling of the asteroid 85 Io in conjunction with data from an occultation event during the 1995â€“96 apparition fn2 fn2Partly based on observations collected at the European Southern Observatory, La Silla, Chile.. Planetary and Space Science, 1999, 47, 327-330.	1.7	4
111	Rotational properties of main belt asteroids: photoelectric and CCD observations of 15 objects. Planetary and Space Science, 1997, 45, 1423-1435.	1.7	5
112	GAUSS - genesis of asteroids and evolution of the solar system. Experimental Astronomy, 0, , 1.	3.7	5