Lucy A Mcfadden

List of Publications by Year
in descending order

155 papers	9,532 citations	32410 55 h-index	43601 95 g-index
159 all docs	159 docs citations	159 times ranked	4010 citing authors

#	Article	IF	Citations
1	Mineralogy mapping of the Ac-H-5 Fejokoo quadrangle of Ceres. Icarus, 2019, 318, 147-169.	1.1	1
2	Mineralogical analysis of the Ac-H-6 Haulani quadrangle of the dwarf planet Ceres. Icarus, 2019, 318, 170-187.	1.1	11
3	Mineralogical analysis of quadrangle Ac-H-10 Rongo on the dwarf planet Ceres. Icarus, 2019, 318, 212-229.	1.1	8
4	Spectral investigation of quadrangle AC-H 3 of the dwarf planet Ceres â€“ The region of impact crater Dantu. Icarus, 2019, 318, 111-123.	1.1	5
5	Bright carbonate surfaces on Ceres as remnants of salt-rich water fountains. Icarus, 2019, 320, 39-48.	1.1	42
6	Stability of hydrated carbonates on Ceres. Icarus, 2019, 320, 136-149.	1.1	13
7	Dawn mission's search for satellites of Ceres: Intact protoplanets don't have satellites. Icarus, 2018, 316, 191-204.	1.1	6
8	Geologic constraints on the origin of red organicâ€rich material on Ceres. Meteoritics and Planetary Science, 2018, 53, 1983-1998.	0.7	34
9	Search for sulfates on the surface of Ceres. Meteoritics and Planetary Science, 2018, 53, 1946-1960.	0.7	10
10	Geology of Ceresâ€™ North Pole quadrangle with Dawn FC imaging data. Icarus, 2018, 316, 14-27.	1.1	6
11	The Ac-5 (Fejokoo) quadrangle of Ceres: Geologic map and geomorphological evidence for ground ice mediated surface processes. Icarus, 2018, 316, 63-83.	1.1	21
12	Dantu's mineralogical properties â€“ A view into the composition of Ceres' crust. Meteoritics and Planetary Science, 2018, 53, 1866-1883.	0.7	10
13	Ceresâ€™ opposition effect observed by the Dawn framing camera. Astronomy and Astrophysics, 2018, 620, A201.	2.1	9
14	Localized aliphatic organic material on the surface of Ceres. Science, 2017, 355, 719-722.	6.0	152
15	An investigation of the bluish material on Ceres. Geophysical Research Letters, 2017, 44, 1660-1668.	1.5	29
16	Spectral analysis of Ahuna Mons from Dawn mission's visibleâ€infrared spectrometer. Geophysical Research Letters, 2017, 44, 97-104.	1.5	74
17	Trajectory Optimization for Missions to Small Bodies with a Focus on Scientific Merit. Computing in Science and Engineering, 2017, 19, 18-28.	1.2	4
18	Dawn arrives at Ceres: Exploration of a small, volatile-rich world. Science, 2016, 353, 1008-1010.	6.0	178

#	Article	IF	Citations
19	Distribution of phyllosilicates on the surface of Ceres. Science, 2016, 353, .	6.0	159
20	Cryovolcanism on Ceres. Science, 2016, 353, .	6.0	164
21	Results of a hubble space telescope search for natural satellites of dwarf planet 1 ceres. Icarus, 2016, 280, 308-314.	1.1	2
22	Bright carbonate deposits as evidence of aqueous alteration on (1) Ceres. Nature, 2016, 536, 54-57.	13.7	240
23	MINERALOGICAL MAPPING OF THE OCCATOR QUADRANGLE. , 2016, , .		2
24	COMPOSITION OF THE URVARA-YALODE REGION ON CERES. , 2016, , .		2
25	MINERALOGY OF RONGO QUANDRANGLE ON CERES. , 2016, , .		0
26	MINERALOGICAL VARIATIONS OF LOCALIZED FEATURES ON CERES. , 2016, , .		0
27	Mineralogical analysis of the Oppia quadrangle of asteroid (4) Vesta: Evidence for occurrence of moderate-reflectance hydrated minerals. Icarus, 2015, 259, 129-149.	1.1	15
28	Spin-forbidden pyroxene absorptions in the vir-spectra of 4Vesta. , 2015, , .		1
29	Vestaâ€™s missing moons: Comprehensive search for natural satellites of Vesta by the Dawn spacecraft. Icarus, 2015, 257, 207-216.	1.1	9
30	Ammoniated phyllosilicates with a likely outer Solar System origin on (1) Ceres. Nature, 2015, 528, 241-244.	13.7	276
31	The Sextilia-region on Asteroid 4Vesta â€“ Stratigraphy and variegation. Icarus, 2015, 259, 162-180.	1.1	8
32	Vestaâ€™s Pinaria region: Original basaltic achondrite material derived from mixing upper and lower crust. Icarus, 2015, 259, 150-161.	1.1	4
33	Composition of the northern regions of Vesta analyzed by the Dawn mission. Icarus, 2015, 259, 53-71.	1.1	25
34	Near-Earth Objects. , 2014, , 603-623.		1
35	NASA Computational Case Study: Where Is My Moon?. Computing in Science and Engineering, 2014, 16, 92-99.	1.2	1
36	The complex spin state of 103P/Hartley 2: Kinematics and orientation in space. Icarus, 2013, 222, 595-609.	1.1	40

#	Article	IF	Citations
37	Shape, density, and geology of the nucleus of Comet 103P/Hartley 2. Icarus, 2013, 222, 550-558.	1.1	112
38	Comparing Dawn, Hubble Space Telescope, and ground-based interpretations of (4) Vesta. Icarus, 2013, 226, 1103-1114.	1.1	37
39	Vestan lithologies mapped by the visual and infrared spectrometer on Dawn. Meteoritics and Planetary Science, 2013, 48, 2185-2198.	0.7	75
40	Vesta's mineralogical composition as revealed by the visible and infrared spectrometer on Dawn. Meteoritics and Planetary Science, 2013, 48, 2166-2184.	0.7	87
41	Olivine in an unexpected location on Vestaâ€™s surface. Nature, 2013, 504, 122-125.	13.7	82
42	Vesta, vestoids, and the HED meteorites: Interconnections and differences based on Dawn Framing Camera observations. Journal of Geophysical Research E: Planets, 2013, 118, 1991-2003.	1.5	11
43	Disk-Resolved Photometry of Cometary Nuclei: Results from DIXI and Stardust-NExT. Proceedings of the International Astronomical Union, 2012, 10, 180-180.	0.0	1
44	Distinctive space weathering on Vesta from regolith mixing processes. Nature, 2012, 491, 79-82.	13.7	120
45	Upper limits on the size of satellites of Asteroid (4) Vesta from 2007 Hubble Space Telescope observations. Icarus, 2012, 220, 305-310.	1.1	4
46	COMETARY VOLATILES AND THE ORIGIN OF COMETS. Astrophysical Journal, 2012, 758, 29.	1.6	130
47	Moon search algorithms for NASA's Dawn Mission to asteroid Vesta. Proceedings of SPIE, 2012, , .	0.8	5
48	Spectroscopic Characterization of Mineralogy and Its Diversity Across Vesta. Science, 2012, 336, 697-700.	6.0	240
49	Color and Albedo Heterogeneity of Vesta from Dawn. Science, 2012, 336, 700-704.	6.0	166
50	Earth as an Extrasolar Planet: Earth Model Validation Using EPOXI Earth Observations. Astrobiology, 2011, 11, 393-408.	1.5	161
51	Properties of an Earth-Like Planet Orbiting a Sun-Like Star: Earth Observed by the EPOXI Mission. Astrobiology, 2011, 11, 907-930.	1.5	68
52	EPOXI at Comet Hartley 2. Science, 2011, 332, 1396-1400.	6.0	401
53	Stardust-NExT, Deep Impact, and the accelerating spin of 9P/Tempel 1. Icarus, 2011, 213, 345-368.	1.1	44
54	VIEWS FROMEPOXI: COLORS IN OUR SOLAR SYSTEM AS AN ANALOG FOR EXTRASOLAR PLANETS. Astrophysical Journal, 2011, 729, 130.	1.6	49

#	Article	IF	Citations
55	Ultraviolet spectroscopy of Asteroid (4) Vesta. Icarus, 2011, 216, 640-649.	1.1	11
56	Mineralogical characterization of some V-type asteroids, in support of the NASAâ€,Dawnâ€,missionâ˜…. Monthly Notices of the Royal Astronomical Society, 2011, 412, 2318-2332.	1.6	30
57	The Surface Composition of Ceres. Space Science Reviews, 2011, 163, 95-116.	3.7	72
58	Surface Composition of Vesta: Issues and Integrated Approach. Space Science Reviews, 2011, 163, 117-139.	3.7	25
59	The Education and Public Outreach Program for NASAâ€™s Dawn Mission. Space Science Reviews, 2011, 163, 545-574.	3.7	4
60	Improved measurement of Asteroid (4) Vestaâ€™s rotational axis orientation. Icarus, 2011, 211, 528-534.	1.1	18
61	Deep Impact, Stardust-NExT and the behavior of Comet 9P/Tempel 1 from 1997 to 2010. Icarus, 2011, 213, 323-344.	1.1	16
62	A SEARCH FOR SATELLITES AROUND CERES. Astronomical Journal, 2011, 141, 197.	1.9	3
63	Surface Composition of Vesta: Issues and Integrated Approach. , 2011, , 117-139.		0
64	Titanium-bearing pyroxenes of some E asteroids: Coexisting of igneous and hydrated rocks. Planetary and Space Science, 2010, 58, 1400-1403.	0.9	13
65	The 506nm absorption feature in pyroxene spectra: Nature and implications for spectroscopy-based studies of pyroxene-bearing targets. Icarus, 2010, 207, 295-313.	1.1	14
66	Photometric mapping of Asteroid (4) Vestaâ€™s southern hemisphere with Hubble Space Telescope. Icarus, 2010, 208, 238-251.	1.1	88
67	About mineral composition of geologic units in the northern hemisphere of Vesta. Icarus, 2010, 209, 575-585.	1.1	9
68	The Surface Composition of Ceres. , 2010, , 95-116.		3
69	The Shape and Surface Variation of 2 Pallas from the Hubble Space Telescope. Science, 2009, 326, 275-278.	6.0	35
70	Photometric analysis of the nucleus of Comet 81P/Wild 2 from Stardust images. Icarus, 2009, 204, 209-226.	1.1	47
71	Activity in Comet Tempel 1: Linking the Coma and the Nucleusâ€™ Surface. Globular Clusters - Guides To Galaxies, 2009, , 265-270.	0.1	0
72	Vestoid surface composition from analysis of faint absorption bands in visible reflectance spectra. Icarus, 2008, 195, 649-662.	1.1	13

#	Article	IF	Citations
73	Laboratory simulations of sulfur depletion at Eros. Icarus, 2008, 195, 622-629.	1.1	59
74	A newly-identified spectral reflectance signature near the lunar South pole and the South Pole-Aitken Basin. Earth, Planets and Space, 2008, 60, 67-74.	0.9	15
75	Near-Earth Objects. , 2007, , 283-300.		3
76	Deep Impact photometry of Comet 9P/Tempel 1. Icarus, 2007, 187, 41-55.	1.1	78
77	Exploration of faint absorption bands in the reflectance spectra of the asteroids by method of optimal smoothing: Vestoids. Icarus, 2007, 187, 469-481.	1.1	6
78	Dust coma morphology in the Deep Impact images of Comet 9P/Tempel 1. Icarus, 2007, 191, 146-160.	1.1	12
79	Photometric analysis and disk-resolved thermal modeling of Comet 19P/Borrelly from Deep Space 1 data. Icarus, 2007, 188, 195-211.	1.1	58
80	The shape, topography, and geology of Tempel 1 from Deep Impact observations. Icarus, 2007, 187, 4-15.	1.1	131
81	The shape, topography, and geology of Tempel 1 from Deep Impact observations. Icarus, 2007, 191, 51-62.	1.1	12
82	Dawn Mission to Vesta and Ceres. Earth, Moon and Planets, 2007, 101, 65-91.	0.3	125
83	The internal structure of Jupiter family cometary nuclei from Deep Impact observations: The â€œtalpsâ€•or â€œlayered pileâ€•model. Icarus, 2007, 187, 332-344.	1.1	111
84	Deep Impact photometry of Comet 9P/Tempel 1. Icarus, 2007, 191, 161-175.	1.1	13
85	The internal structure of Jupiter family cometary nuclei from Deep Impact observations: The â€œtalpsâ€•or â€œlayered pileâ€•model. Icarus, 2007, 191, 573-585.	1.1	21
86	Dust coma morphology in the Deep Impact images of Comet 9P/Tempel 1. Icarus, 2007, 187, 26-40.	1.1	81
87	Exploring the asteroid belt with ion propulsion: Dawn mission history, status and plans. Advances in Space Research, 2007, 40, 193-201.	1.2	32
88	Exposed Water Ice Deposits on the Surface of Comet 9P/Tempel 1. Science, 2006, 311, 1453-1455.	6.0	238
89	Ceres, Vesta, and Pallas: Protoplanets, not asteroids. Eos, 2006, 87, 105.	0.1	22
90	Rotationally-resolved spectroscopy of Vesta I: 2â€“4 Î¼m region. Icarus, 2006, 180, 464-472.	1.1	38

#	Article	IF	Citations
91	Photometric analysis of 1 Ceres and surface mapping from HST observations. Icarus, 2006, 182, 143-160.	1.1	117
92	Ceres: High-resolution imaging with HST and the determination of physical properties. Advances in Space Research, 2006, 38, 2039-2042.	1.2	13
93	Dawn Discovery mission to Vesta and Ceres: Present status. Advances in Space Research, 2006, 38, 2043-2048.	1.2	26
94	Spitzer Spectral Observations of the Deep Impact Ejecta. Science, 2006, 313, 635-640.	6.0	298
95	Deep Impact: Excavating Comet Tempel 1. Science, 2005, 310, 258-264.	6.0	728
96	Differentiation of the asteroid Ceres as revealed by its shape. Nature, 2005, 437, 224-226.	13.7	263
97	Expectations for Infrared Spectroscopy of 9P/Tempel 1 from Deep Impact. Space Science Reviews, 2005, 117, 269-295.	3.7	8
98	Deep Impact: Working Properties for the Target Nucleus â€“ Comet 9P/Tempel 1. Space Science Reviews, 2005, 117, 137-160.	3.7	53
99	Comet Geology with Deep Impact Remote Sensing. Space Science Reviews, 2005, 117, 193-205.	3.7	5
100	Education and Public Outreach for Nasaâ€™s Deep Impact Mission. Space Science Reviews, 2005, 117, 373-396.	3.7	3
101	Spectral reflectance of Martian meteorites: Spectral signatures as a template for locating source region on Mars. Meteoritics and Planetary Science, 2005, 40, 151-172.	0.7	18
102	Mitigation of Hazardous Comets and Asteroids. Eos, 2005, 86, 205.	0.1	0
103	Education and Public Outreach for Nasaâ€™s Deep Impact Mission. , 2005, , 373-396.		2
104	Photometric analysis of Eros from NEAR data. Icarus, 2004, 172, 415-431.	1.1	56
105	Dawn: A journey in space and time. Planetary and Space Science, 2004, 52, 465-489.	0.9	100
106	Spectral properties and geologic processes on Eros from combined NEAR NIS and MSI data sets. Meteoritics and Planetary Science, 2003, 38, 1053-1077.	0.7	33
107	NEAR Infrared Spectrometer Photometry of Asteroid 433 Eros. Icarus, 2002, 155, 189-204.	1.1	113
108	Near-IR Reflectance Spectroscopy of 433 Eros from the NIS Instrument on the NEAR Mission. Icarus, 2002, 155, 119-144.	1.1	70

#	Article	IF	Citations
109	Eros: Shape, Topography, and Slope Processes. Icarus, 2002, 155, 18-37.	1.1	154
110	The composition of 433 Eros: A mineralogicalâ€"chemical synthesis. Meteoritics and Planetary Science, 2001, 36, 1661-1672.	0.7	93
111	Mineralogical interpretation of reflectance spectra of Eros from NEAR nearâ€infrared spectrometer low phase flyby. Meteoritics and Planetary Science, 2001, 36, 1711-1726.	0.7	45
112	The landing of the NEAR-Shoemaker spacecraft on asteroid 433 Eros. Nature, 2001, 413, 390-393.	13.7	190
113	Imaging of Small-Scale Features on 433 Eros from NEAR: Evidence for a Complex Regolith. Science, 2001, 292, 484-488.	6.0	147
114	NEAR at Eros: Imaging and Spectral Results. Science, 2000, 289, 2088-2097.	6.0	250
115	New results and implications for lunar crustal iron distribution using sensor data fusion techniques. Journal of Geophysical Research, 2000, 105, 4291-4316.	3.3	17
116	NEAR Encounter with Asteroid 253 Mathilde: Overview. Icarus, 1999, 140, 3-16.	1.1	121
117	Mathilde: Size, Shape, and Geology. Icarus, 1999, 140, 17-27.	1.1	86
118	NEAR Photometry of Asteroid 253 Mathilde. Icarus, 1999, 140, 53-65.	1.1	109
119	Imaging of Asteroid 433 Eros During NEAR's Flyby Reconnaissance. Science, 1999, 285, 562-564.	6.0	61
120	Surface modification of olivine by H+and He+bombardment. Journal of Geophysical Research, 1999, 104, 1865-1872.	3.3	101
121	Sodium near the Tail of Comet Giacobiniâ€"Zinner. Icarus, 1998, 134, 249-252.	1.1	7
122	Astrophysics in 1997. Publications of the Astronomical Society of the Pacific, 1998, 110, 223-267.	1.0	8
123	An overview of the NEAR multispectral imager-near-infrared spectrometer investigation. Journal of Geophysical Research, 1997, 102, 23709-23727.	3.3	42
124	NEAR's Flyby of 253 Mathilde: Images of a C Asteroid. Science, 1997, 278, 2109-2114.	6.0	185
125	Analysis of POSS Images of Cometâ€"Asteroid Transition Object 107P/1949 W1 (Wilsonâ€"Harrington). Icarus, 1997, 128, 114-126.	1.1	43
126	Extracting Spectral Information about 253 Mathilde Using the NEAR Photometry. Icarus, 1997, 129, 440-449.	1.1	12

#	Article	IF	Citations
127	Astrophysics in 1996. Publications of the Astronomical Society of the Pacific, 1997, 109, 78.	1.0	2
128	Rethinking Science as a Career. Eos, 1996, 77, 27.	0.1	0
129	Near-Earth asteroid mission to travel to 433 Eros. Eos, 1996, 77, 73.	0.1	2
130	4015 Wilson-Harrington, 2201 Oljato, and 3200 Phaethon: Search for CN Emission. Icarus, 1996, 119, 173-181.	1.1	59
131	Physics and Chemistry of the Solar System.John S. Lewis. Academic Press, San Diego, 1995. 537 pp., $149.00.. Icarus, 1996, 124, 355.	1.1	0
132	Remote sensing of comets and asteroids. Reviews of Geophysics, 1995, 33, 481.	9.0	0
133	Meteorite and Asteroid Reflectance Spectroscopy: Clues to Early Solar System Processes. Annual Review of Earth and Planetary Sciences, 1994, 22, 457-497.	4.6	84
134	Variability in Comet P/Swift-Tuttle. Icarus, 1994, 109, 145-155.	1.1	13
135	Reflectance Spectra of the Elephant Moraine A79001 Meteorite: Implications for Remote Sensing of Planetary Bodies. Icarus, 1993, 105, 79-91.	1.1	37
136	Thermal-Infrared High-Resolution Imaging of Comet Austin. Icarus, 1993, 106, 489-498.	1.1	1
137	The enigmatic object 2201 Oljato: Is it an asteroid or an evolved comet?. Journal of Geophysical Research, 1993, 98, 3031-3041.	3.3	33
138	Compositional trends in rock-forming elements of comet Halley dust. Science, 1992, 258, 266-269.	6.0	104
139	CCD reflectance spectra of selected asteroids. Icarus, 1992, 100, 85-94.	1.1	57
140	Near-Earth asteroids and the history of planetary formation. Eos, 1991, 72, 473-473.	0.1	2
141	IUE observations of the evolution of Comet Wilson (1986/): Comparison with P/Halley. Icarus, 1989, 80, 303-314.	1.1	40
142	IUE observations of comet P/Halley: evolution of the ultraviolet spectrum between September 1985 and July 1986. , 1988, , 325-328.		14
143	Activity of comet P/Halley 23â€“25 March, 1986: IUE observations. , 1988, , 333-338.		7
144	Ultraviolet spectrophotometry of comet Giacobini-Zinner during the ICE encounter. Icarus, 1987, 69, 329-337.	1.1	19

#	Article	IF	Citations
145	The bare nucleus of comet Neujmin 1. Astrophysical Journal, 1987, 316, 847.	1.6	81
146	Post-perihelion imaging of comet Halley at ESO. Nature, 1986, 321, 363-365.	13.7	69
147	IUE observations of comet Halley during the Vega and Giotto encounters. Nature, 1986, 321, 361-363.	13.7	52
148	Is CO2 responsible for the outbursts of comet Halley?. Nature, 1986, 324, 433-436.	13.7	52
149	Near-Earth Asteroids: Possible Sources from Reflectance Spectroscopy. Science, 1985, 229, 160-163.	6.0	64
150	A Search for Cometary Emissions and Meteor Debris Associated with 3200 1983TB. Publications of the Astronomical Society of the Pacific, 1985, 97, 899.	1.0	4
151	Mineralogical-petrological characterization of near-Earth asteroids. Icarus, 1984, 59, 25-40.	1.1	79
152	Possible lunar source areas of meteorite ALHA81005: Geochemical remote sensing information. Geophysical Research Letters, 1983, 10, 813-816.	1.5	15
153	Moon: Nearâ€infrared spectral reflectance, A first good look. Journal of Geophysical Research, 1981, 86, 10883-10892.	3.3	168
154	Visible spectral reflectance measurements (0.33â€“1.1 Î¼m) of the Galilean satellites at many orbital phase angles. Icarus, 1980, 44, 410-430.	1.1	45
155	Vesta: The first pyroxene band from new spectroscopic measurements. Icarus, 1977, 31, 439-446.	1.1	38