Ian A Crawford

List of Publications by Year
in descending order

137 papers	3,674 citations	117625 34 h-index	161849 54 g-index
143 all docs	143 docs citations	143 times ranked	3090 citing authors

#	Article	IF	Citations
1	Complex burial histories of Apollo 12 basaltic soil grains derived from cosmogenic noble gases: Implications for local regolith evolution and future inÂsitu investigations. Meteoritics and Planetary Science, 2022, 57, 603-634.	1.6	4
2	Assessing the survivability of biomarkers within terrestrial material impacting the lunar surface. Icarus, 2021, 354, 114026.	2.5	4
3	Astronomy from the Moon: the next decades. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20190560.	3.4	5
4	The lunar surface as a recorder of astrophysical processes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20190562.	3.4	11
5	A database of noble gases in lunar samples in preparation for mass spectrometry on the Moon. Planetary and Space Science, 2020, 182, 104823.	1.7	14
6	Regions of interest (ROI) for future exploration missions to the lunar South Pole. Planetary and Space Science, 2020, 180, 104750.	1.7	44
7	The BepiColombo Mercury Imaging X-Ray Spectrometer: Science Goals, Instrument Performance and Operations. Space Science Reviews, 2020, 216, 1.	8.1	36
8	Expanding worldviews: cosmic perspectives. Astronomy and Geophysics, 2019, 60, 6.36-6.40.	0.2	1
9	Widening Perspectives: The Intellectual and Social Benefits of Astrobiology, Big History, and the Exploration of Space. Journal of Big History, 2019, 3, 205-224.	0.4	4
10	Why Space Is Still the Place. Inference, 2019, 4, .	0.0	0
11	Widening perspectives: the intellectual and social benefits of astrobiology (regardless of whether) Tj ETQq1 1 0.784314 rgBT /Overlock	1.6	14
12	Direct Exoplanet Investigation Using Interstellar Space Probes. , 2018, , 3413-3431.		5
13	Big history and the cosmic perspective. Astronomy and Geophysics, 2018, 59, 5.33-5.36.	0.2	5
14	Biogeochemical probing of microbial communities in a basaltâ€hosted hot spring at KverkfjÃ¶ll volcano, Iceland. Geobiology, 2018, 16, 507-521.	2.4	15
15	Was There an Early Habitability Window for Earth's Moon?. Astrobiology, 2018, 18, 985-988.	3.0	22
16	The PanCam Instrument for the ExoMars Rover. Astrobiology, 2017, 17, 511-541.	3.0	55
17	The petrology, geochemistry, and age of lunar regolith breccias Miller Range 090036 and 090070: Insights into the crustal history of the Moon. Meteoritics and Planetary Science, 2017, 52, 3-23.	1.6	8
18	Atomic gas in debris discs. Monthly Notices of the Royal Astronomical Society, 2017, 466, 3582-3593.	4.4	10

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19	The Moon as a Recorder of Nearby Supernovae. , 2017, , 2507-2522.		2
20	Why we should build a Moon village. Astronomy and Geophysics, 2017, 58, 6.18-6.21.	0.2	7
21	Direct Exoplanet Investigation Using Interstellar Space Probes. , 2017, , 1-19.		0
22	Organic Matter Responses to Radiation under Lunar Conditions. Astrobiology, 2016, 16, 900-912.	3.0	5
23	An analysis of Apollo lunar soil samples 12070,889, 12030,187, and 12070,891: Basaltic diversity at the Apollo 12 landing site and implications for classification of smallâ€sized lunar samples. Meteoritics and Planetary Science, 2016, 51, 1654-1677.	1.6	9
24	Lunar basalt chronology, mantle differentiation and implications for determining the age of the Moon. Earth and Planetary Science Letters, 2016, 451, 149-158.	4.4	60
25	The long-term scientific benefits of a space economy. Space Policy, 2016, 37, 58-61.	1.5	38
26	The Moon: An Archive of Small Body Migration in the Solar System. Earth, Moon and Planets, 2016, 118, 133-158.	0.6	60
27	Using extraterrestrial resources for science. Astronomy and Geophysics, 2016, 57, 4.32-4.36.	0.2	13
28	The Moon Zoo citizen science project: Preliminary results for the Apollo 17 landing site. Icarus, 2016, 271, 30-48.	2.5	17
29	The Moon as a Recorder of NearbySupernovae. , 2016, , 1-16.		0
30	The Moon as a Recorder of Nearby Supernovae. , 2016, , 1-16.		0
31	The Moon as a Recorder of Organic Evolution in the Early Solar System: A Lunar Regolith Analog Study. Astrobiology, 2015, 15, 154-168.	3.0	18
32	Lunar resources. Progress in Physical Geography, 2015, 39, 137-167.	3.2	183
33	Constraining the source regions of lunar meteorites using orbital geochemical data. Meteoritics and Planetary Science, 2015, 50, 214-228.	1.6	38
34	The Lethality of Interplanetary Warfare: A Fundamental Constraint on Extraterrestrial Liberty. Space and Society, 2015, , 187-198.	1.8	20
35	Interplanetary Federalism: Maximising the Chances of Extraterrestrial Peace, Diversity and Liberty. Space and Society, 2015, , 199-218.	1.8	24
36	Lunar Exploration. , 2014, , 555-579.		13

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37	An unusual clast in lunar meteorite MacAlpine Hills 88105: A unique lunar sample or projectile debris?. Meteoritics and Planetary Science, 2014, 49, 677-695.	1.6	13
38	Searching for nonlocal lithologies in the Apollo 12 regolith: A geochemical and petrological study of basaltic coarse fines from the Apollo lunar soil sample 12023,155. Meteoritics and Planetary Science, 2014, 49, 1288-1304.	1.6	8
39	Introduction to the Special Issue on the Global Exploration Roadmap. Space Policy, 2014, 30, 141-142.	1.5	1
40	Basaltic diversity at the Apollo 12 landing site: Inferences from petrologic examinations of the soil sample 12003. Meteoritics and Planetary Science, 2014, 49, 842-871.	1.6	15
41	Western Oceanus Procellarum as seen by C1XS on Chandrayaan-1. Icarus, 2014, 229, 254-262.	2.5	6
42	Lunar exploration: opening a window into the history and evolution of the inner Solar System. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130315.	3.4	53
43	Numerical modeling of lavaâ€regolith heat transfer on the Moon and implications for the preservation of implanted volatiles. Journal of Geophysical Research E: Planets, 2013, 118, 382-397.	3.6	31
44	Glaciovolcanic hydrothermal environments in Iceland and implications for their detection on Mars. Journal of Volcanology and Geothermal Research, 2013, 256, 61-77.	2.1	40
45	Hydrothermal modification of the Sikhote-Alin iron meteorite under low pH geothermal environments. A plausibly prebiotic route to activated phosphorus on the early Earth. Geochimica Et Cosmochimica Acta, 2013, 109, 90-112.	3.9	52
46	The Moon and the early Earth. Astronomy and Geophysics, 2013, 54, 1.31-1.34.	0.2	3
47	Minimagnetospheres above the Lunar Surface and the Formation of Lunar Swirls. Physical Review Letters, 2012, 109, 081101.	7.8	43
48	Back to the Moon: The scientific rationale for resuming lunar surface exploration. Planetary and Space Science, 2012, 74, 3-14.	1.7	119
49	The production of oxygen and metal from lunar regolith. Planetary and Space Science, 2012, 74, 49-56.	1.7	103
50	Selecting the geology filter wavelengths for the ExoMars Panoramic Camera instrument. Planetary and Space Science, 2012, 71, 80-100.	1.7	28
51	Lunar PanCam: Adapting ExoMars PanCam for the ESA Lunar Lander. Planetary and Space Science, 2012, 74, 247-253.	1.7	10
52	Characterisation of potential landing sites for the European Space Agency's Lunar Lander project. Planetary and Space Science, 2012, 74, 224-246.	1.7	75
53	A brief review of chemical and mineralogical resources on the Moon and likely initial in situ resource utilization (ISRU) applications. Planetary and Space Science, 2012, 74, 42-48.	1.7	200
54	Geology, geochemistry, and geophysics of the Moon: Status of current understanding. Planetary and Space Science, 2012, 74, 15-41.	1.7	104

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55	Dispelling the myth of robotic efficiency. Astronomy and Geophysics, 2012, 53, 2.22-2.26.	0.2	27
56	The scientific legacy of Apollo. Astronomy and Geophysics, 2012, 53, 6.24-6.28.	0.2	10
57	Lunar Netâ€"a proposal in response to an ESA M3 call in 2010 for a medium sized mission. Experimental Astronomy, 2012, 33, 587-644.	3.7	15
58	The Chandrayaan-1 X-ray Spectrometer: First results. Planetary and Space Science, 2012, 60, 217-228.	1.7	28
59	Petrogenesis and chronology of lunar meteorite Northwest Africa 4472: A KREEPy regolith breccia from the Moon. Geochimica Et Cosmochimica Acta, 2011, 75, 2420-2452.	3.9	58
60	Characterization of multiple lithologies within the lunar feldspathic regolith breccia meteorite Northeast Africa 001. Meteoritics and Planetary Science, 2011, 46, 1288-1312.	1.6	23
61	Volcano-Ice Interaction as a Microbial Habitat on Earth and Mars. Astrobiology, 2011, 11, 695-710.	3.0	52
62	Moon Zoo: citizen science in lunar exploration. Astronomy and Geophysics, 2011, 52, 2.10-2.12.	0.2	14
63	Planetary X-ray fluorescence analogue laboratory experiments and an elemental abundance algorithm for C1XS. Planetary and Space Science, 2011, 59, 1393-1407.	1.7	17
64	Project Icarus: A review of local interstellar medium properties of relevance for space missions to the nearest stars. Acta Astronautica, 2011, 68, 691-699.	3.2	17
65	Penetrators for in situ subsurface investigations of Europa. Advances in Space Research, 2011, 48, 725-742.	2.6	51
66	Lunar X-ray fluorescence observations by the Chandrayaan-1 X-ray Spectrometer (C1XS): Results from the nearside southern highlands. Icarus, 2011, 214, 53-66.	2.5	46
67	Lunar Palaeoregolith Deposits as Recorders of the Galactic Environment of the Solar System and Implications for Astrobiology. Earth, Moon and Planets, 2010, 107, 75-85.	0.6	39
68	Hypervelocity Impact Experiments in the Laboratory Relating to Lunar Astrobiology. Earth, Moon and Planets, 2010, 107, 55-64.	0.6	13
69	Introduction to the Special Issue on Astrobiology on the Moon. Earth, Moon and Planets, 2010, 107, 1-1.	0.6	2
70	Mercury's surface and composition to be studied by BepiColombo. Planetary and Space Science, 2010, 58, 21-39.	1.7	31
71	Preservation potential of implanted solar wind volatiles in lunar paleoregolith deposits buried by lava flows. Icarus, 2010, 207, 595-604.	2.5	47
72	Individual lava flow thicknesses in Oceanus Procellarum and Mare Serenitatis determined from Clementine multispectral data. Icarus, 2010, 209, 323-336.	2.5	39

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73	Astrobiological Considerations for the Selection of the Geological Filters on the ExoMars PanCam Instrument. Astrobiology, 2010, 10, 933-951.	3.0	15
74	A Comment on â€œThe Far Future of Exoplanet Direct Characterizationâ€â€”The Case for Interstellar Space Probes. Astrobiology, 2010, 10, 853-856.	3.0	3
75	Astrobiological Benefits of Human Space Exploration. Astrobiology, 2010, 10, 577-587.	3.0	14
76	Lunar meteorite regolith breccias: An in situ study of impact melt composition using LA-ICP-MS with implications for the composition of the lunar crust. Meteoritics and Planetary Science, 2010, 45, 917-946.	1.6	59
77	The preservation of fossil biomarkers during meteorite impact events: Experimental evidence from biomarkerâ€rich projectiles and target rocks. Meteoritics and Planetary Science, 2010, 45, 1340-1358.	1.6	28
78	ESSC-ESF Position Paperâ€”Science-Driven Scenario for Space Exploration: Report from the European Space Sciences Committee (ESSC). Astrobiology, 2009, 9, 23-41.	3.0	13
79	A comparative study of endolithic microborings in basaltic lavas from a transitional subglacialâ€“marine environment. International Journal of Astrobiology, 2009, 8, 37-49.	1.6	30
80	LunarEXâ€”a proposal to cosmic vision. Experimental Astronomy, 2009, 23, 711-740.	3.7	18
81	Does the UK need a Space Agency?. Astronomy and Geophysics, 2009, 50, 1.07-1.07.	0.2	1
82	Ground calibration of the Chandrayaan-1 X-ray Solar Monitor (XSM). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 607, 544-553.	1.6	19
83	The scientific rationale for the C1XS X-ray spectrometer on India's Chandrayaan-1 mission to the moon. Planetary and Space Science, 2009, 57, 725-734.	1.7	30
84	X-ray fluorescence observations of the moon by SMART-1/D-CIXS and the first detection of Ti KÎ± from the lunar surface. Planetary and Space Science, 2009, 57, 744-750.	1.7	46
85	The C1XS X-ray Spectrometer on Chandrayaan-1. Planetary and Space Science, 2009, 57, 717-724.	1.7	54
86	The thermal alteration by pyrolysis of the organic component of small projectiles of mudrock during capture at hypervelocity. Journal of Analytical and Applied Pyrolysis, 2008, 82, 312-314.	5.5	23
87	Lunar science with affordable small spacecraft technologies: MoonLITE and Moonraker. Planetary and Space Science, 2008, 56, 368-377.	1.7	27
88	Exploring the Moon: a UK perspective. Astronomy and Geophysics, 2008, 49, 1.09-1.12.	0.2	0
89	Astronomy from the Moon. Astronomy and Geophysics, 2008, 49, 2.17-2.19.	0.2	11
90	MoonLITE: A UK-led mission to the Moon. Astronomy and Geophysics, 2008, 49, 3.11-3.14.	0.2	4

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91	The petrology and geochemistry of Miller Range 05035: A new lunar gabbroic meteorite. Geochimica Et Cosmochimica Acta, 2008, 72, 3822-3844.	3.9	58
92	On the Survivability and Detectability of Terrestrial Meteorites on the Moon. Astrobiology, 2008, 8, 242-252.	3.0	43
93	Detection of Circumstellar Material in a Normal Type Ia Supernova. Science, 2007, 317, 924-926.	12.6	313
94	Laboratory impacts into dry and wet sandstone with and without an overlying water layer: Implications for scaling laws and projectile survivability. Meteoritics and Planetary Science, 2007, 42, 1905-1914.	1.6	33
95	UK Lunar Science Missions: Moonlite & Moonraker. , 2007, , .		4
96	The D-CIXS X-ray spectrometer on the SMART-1 mission to the Moonâ€"First results. Planetary and Space Science, 2007, 55, 494-502.	1.7	41
97	Space exploration and the RAS. Astronomy and Geophysics, 2007, 48, 6.9-6.10.	0.2	1
98	Possible evidence for on-going volcanism on Mars as suggested by thin, elliptical sheets of low-albedo particulate material around pits and fissures close to Cerberus Fossae. Earth, Moon and Planets, 2007, 101, 1-16.	0.6	6
99	A petrological, mineralogical, and chemical analysis of the lunar mare basalt meteorite LaPaz Icefield 02205, 02224, and 02226. Meteoritics and Planetary Science, 2006, 41, 1003-1025.	1.6	50
100	Which way to the Moon?. Astronomy and Geophysics, 2006, 47, 4.17-4.19.	0.2	3
101	The chemistry of transient microstructure in the diffuse interstellar medium. Monthly Notices of the Royal Astronomical Society, 2005, 357, 961-966.	4.4	40
102	THE SCIENTIFIC CASE FOR HUMAN SPACE EXPLORATION. Earth, Moon and Planets, 2005, 94, 167-168.	0.6	0
103	TOWARDS AN INTEGRATED SCIENTIFIC AND SOCIAL CASE FOR HUMAN SPACE EXPLORATION. Earth, Moon and Planets, 2005, 94, 245-266.	0.6	11
104	The scientific case for human space exploration. Astronomy and Geophysics, 2005, 46, 1.17-1.18.	0.2	2
105	Human exploration of the Moon and Mars: implications for Aurora. Astronomy and Geophysics, 2004, 45, 2.28-2.29.	0.2	7
106	The scientific case for renewed human activities on the Moon. Space Policy, 2004, 20, 91-97.	1.5	38
107	Variable interstellar absorption lines: a brief review. Astrophysics and Space Science, 2003, 285, 661-675.	1.4	20
108	Back to the Moon?. Astronomy and Geophysics, 2003, 44, 2.15-2.17.	0.2	5

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109	A VAPID analysis of interstellar lithium in the Î¶ Oph sightline. Monthly Notices of the Royal Astronomical Society, 2002, 335, 267-274.	4.4	24
110	Detection of CaI and CH absorption at the velocity of the variable interstellar component towards Â Velorum. Monthly Notices of the Royal Astronomical Society, 2002, 334, L33-L37.	4.4	18
111	High-resolution observations of interstellar Na i and Ca ii towards the southern opening of the â€˜Local Interstellar Chimneyâ€™: probing the discâ€”halo connection. Monthly Notices of the Royal Astronomical Society, 2002, 337, 720-730.	4.4	27
112	Ultra-high-resolution observations of CH in Southern Molecular Cloud envelopes. Monthly Notices of the Royal Astronomical Society, 2002, 334, 327-337.	4.4	13
113	The scientific case for human space exploration. Space Policy, 2001, 17, 155-159.	1.5	5
114	Â Orionis: further temporal variability and evidence for small-scale structure in the interstellar medium. Monthly Notices of the Royal Astronomical Society, 2001, 321, 553-558.	4.4	6
115	An ultra-high-resolution study of the interstellar medium in the direction of Â Ophiuchi. Monthly Notices of the Royal Astronomical Society, 2001, 327, 841-848.	4.4	17
116	An ultra-high-resolution study of the interstellar medium towards Orion. Monthly Notices of the Royal Astronomical Society, 2001, 328, 555-582.	4.4	32
117	Ultra-high-resolution observations of interstellar Na i and K i towards the Scorpius OB1 association. Monthly Notices of the Royal Astronomical Society, 2001, 328, 1115-1124.	4.4	10
118	Design of the high-resolution optical spectrograph (HROS) for the Gemini telescope. , 2000, 4008, 159.		0
119	Ultra-high-resolution observations of circumstellar K I and C2 around the post-AGB star HD 56126. Monthly Notices of the Royal Astronomical Society, 2000, 311, 370-376.	4.4	14
120	Detection of a variable interstellar absorption component towards Â Orionis A. Monthly Notices of the Royal Astronomical Society, 2000, 312, L43-L48.	4.4	35
121	A study of interstellar Na I D absorption lines towards the Lupus molecular clouds. Monthly Notices of the Royal Astronomical Society, 2000, 317, 996-1004.	4.4	31
122	kappa Velorum: another variable interstellar sightline?. Monthly Notices of the Royal Astronomical Society, 2000, 319, L1-L6.	4.4	16
123	Where are They?. Scientific American, 2000, 283, 38-43.	1.0	15
124	The optical interstellar spectrum of Â Vel (HD 81188) and a measurement of interstellar cloud turbulence. Monthly Notices of the Royal Astronomical Society, 1999, 302, 197-202.	4.4	14
125	Spatially resolved optical spectroscopy of the Herbig Ae/Vega-like binary star HD 35187. Monthly Notices of the Royal Astronomical Society, 1998, 298, 275-284.	4.4	20
126	Additional ultra-high-resolution observations of Ca+ ions in the local interstellar medium. Monthly Notices of the Royal Astronomical Society, 1998, 300, 1181-1188.	4.4	18

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127	<title>Ultrastable high-resolution spectrographs for large telescopes</title>. , 1998, , .		1
128	Atomic and Molecular Interstellar Absorption Lines toward the High Galactic Latitude Stars HD 141569 and HD 157841 at Ultraâ€"High Resolution. Astrophysical Journal, 1998, 504, 522-532.	4.5	15
129	Ultraâ€"Highâ€Resolution Observations of Interstellar Naiand CaiiK toward the High Galactic Latitude Star HD 28497. Astrophysical Journal, 1997, 478, 648-657.	4.5	26
130	Space development: social and political implications. Space Policy, 1995, 11, 219-225.	1.5	13
131	World government the answer?. Nature, 1994, 371, 194-194.	27.8	1
132	<title>UHRF: spectral resolution to the limit</title>. , 1994, 2198, 274.		0
133	Observations of molecules in diffuse interstellar clouds. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 2261.	1.7	9
134	Beyond the nation-state. Nature, 1992, 358, 448-448.	27.8	0
135	Benefits of mission to Mars. Nature, 1990, 346, 504-504.	27.8	1
136	High-resolution observations of interstellar NA I and CA II absorption lines toward the Scorpius OB1 association. Astrophysical Journal, 1989, 336, 212.	4.5	20
137	Antimatter. Nature, 1987, 329, 758-758.	27.8	0