

Richard P Binzel

List of Publications by Year in descending order

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91
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38742

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times ranked

4104
citing authors

#	ARTICLE	IF	CITATIONS
1	Tracing seasonal trends across Pluto's craters: New Horizons Ralph/MVIC results. <i>Icarus</i> , 2022, 373, 114771.	2.5	1
2	The Appearance of a "Fresh" Surface on 596 Scheila as a Consequence of the 2010 Impact Event. <i>Astrophysical Journal Letters</i> , 2022, 924, L9.	8.3	7
3	Anomalous Flux in the Cosmic Optical Background Detected with New Horizons Observations. <i>Astrophysical Journal Letters</i> , 2022, 927, L8.	8.3	32
4	The Debaised Compositional Distribution of MITHNEOS: Global Match between the Near-Earth and Main-belt Asteroid Populations, and Excess of D-type Near-Earth Objects. <i>Astronomical Journal</i> , 2022, 163, 165.	4.7	13
5	Connecting asteroids and meteorites with visible and near-infrared spectroscopy. <i>Icarus</i> , 2022, 380, 114971.	2.5	25
6	A Near-surface Temperature Model of Arrokoth. <i>Planetary Science Journal</i> , 2022, 3, 110.	3.6	9
7	A Predicted Dearth of Majority Hypervolatile Ices in Oort Cloud Comets. <i>Planetary Science Journal</i> , 2022, 3, 112.	3.6	15
8	The Geophysical Environment of (486958) Arrokoth—A Small Kuiper Belt Object Explored by <i>New Horizons</i>. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	18
9	The surface sensitivity of rubble-pile asteroids during a distant planetary encounter: Influence of asteroid shape elongation. <i>Icarus</i> , 2021, 358, 114205.	2.5	6
10	Exogenic basalt on asteroid (101955) Bennu. <i>Nature Astronomy</i> , 2021, 5, 31-38.	10.1	57
11	On the origin & thermal stability of Arrokoth's and Pluto's ices. <i>Icarus</i> , 2021, 356, 114072.	2.5	31
12	Pluto's Sputnik Planitia: Composition of geological units from infrared spectroscopy. <i>Icarus</i> , 2021, 359, 114303.	2.5	5
13	Lucy Mission to the Trojan Asteroids: Science Goals. <i>Planetary Science Journal</i> , 2021, 2, 171.	3.6	54
14	The Orbit and Density of the Jupiter Trojan Satellite System Eurybates—Queta. <i>Planetary Science Journal</i> , 2021, 2, 170.	3.6	10
15	New Horizons Observations of the Cosmic Optical Background. <i>Astrophysical Journal</i> , 2021, 906, 77.	4.5	42
16	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. <i>Science</i> , 2020, 367, .	12.6	64
17	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. <i>Science</i> , 2020, 367, .	12.6	76
18	Twenty Years of SpeX: Accuracy Limits of Spectral Slope Measurements in Asteroid Spectroscopy. <i>Astrophysical Journal, Supplement Series</i> , 2020, 247, 73.	7.7	32

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19	Active Asteroid (6478) Gault: A Blue Q-type Surface below the Dust?. <i>Astrophysical Journal Letters</i> , 2019, 882, L2.	8.3	14
20	Initial results from the New Horizons exploration of 2014 MU ₆₉ , a small Kuiper Belt object. <i>Science</i> , 2019, 364, .	12.6	113
21	The CH ₄ cycles on Pluto over seasonal and astronomical timescales. <i>Icarus</i> , 2019, 329, 148-165.	2.5	38
22	Recent cryovolcanism in Virgil Fossae on Pluto. <i>Icarus</i> , 2019, 330, 155-168.	2.5	45
23	Properties of rubble-pile asteroid (101955) Bennu from OSIRIS-REx imaging and thermal analysis. <i>Nature Astronomy</i> , 2019, 3, 341-351.	10.1	188
24	Impact craters on Pluto and Charon indicate a deficit of small Kuiper belt objects. <i>Science</i> , 2019, 363, 955-959.	12.6	116
25	The distribution of H ₂ O, CH ₃ OH, and hydrocarbon-ices on Pluto: Analysis of New Horizons spectral images. <i>Icarus</i> , 2019, 331, 148-169.	2.5	21
26	Olivine-dominated A-type asteroids in the main belt: Distribution, abundance and relation to families. <i>Icarus</i> , 2019, 322, 13-30.	2.5	49
27	Compositional distributions and evolutionary processes for the near-Earth object population: Results from the MIT-Hawaii Near-Earth Object Spectroscopic Survey (MITHNEOS). <i>Icarus</i> , 2019, 324, 41-76.	2.5	123
28	Space weathering trends on carbonaceous asteroids: A possible explanation for Bennu's blue slope?. <i>Icarus</i> , 2018, 302, 10-17.	2.5	51
29	Investigation of Charon's Craters With Abrupt Terminus Ejecta, Comparisons With Other Icy Bodies, and Formation Implications. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 20-36.	3.6	9
30	Composition of Pluto's small satellites: Analysis of New Horizons spectral images. <i>Icarus</i> , 2018, 315, 30-45.	2.5	49
31	Dunes on Pluto. <i>Science</i> , 2018, 360, 992-997.	12.6	81
32	Great Expectations: Plans and Predictions for New Horizons Encounter With Kuiper Belt Object 2014 MU ₆₉ (æœUltima Thuleæ). <i>Geophysical Research Letters</i> , 2018, 45, 8111-8120.	4.0	14
33	Pluto's haze as a surface material. <i>Icarus</i> , 2018, 314, 232-245.	2.5	50
34	Methane distribution on Pluto as mapped by the New Horizons Ralph/MVIC instrument. <i>Icarus</i> , 2018, 314, 195-209.	2.5	14
35	Can Formulas Derived From Pyroxenes and/or HEDs Be Used to Determine the Mineralogies of V-type Asteroids?. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 1791-1803.	3.6	11
36	Inflight radiometric calibration of New Horizons's Multispectral Visible Imaging Camera (MVIC). <i>Icarus</i> , 2017, 287, 140-151.	2.5	14

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37	Geological mapping of Sputnik Planitia on Pluto. <i>Icarus</i> , 2017, 287, 261-286.	2.5	52
38	Charon tectonics. <i>Icarus</i> , 2017, 287, 161-174.	2.5	30
39	Physical state and distribution of materials at the surface of Pluto from New Horizons LEISA imaging spectrometer. <i>Icarus</i> , 2017, 287, 229-260.	2.5	99
40	Near-infrared thermal emission from near-Earth asteroids: Aspect-dependent variability. <i>Icarus</i> , 2017, 284, 97-105.	2.5	9
41	Past epochs of significantly higher pressure atmospheres on Pluto. <i>Icarus</i> , 2017, 287, 47-53.	2.5	54
42	Pluto's global surface composition through pixel-by-pixel Hapke modeling of New Horizons Ralph/LEISA data. <i>Icarus</i> , 2017, 287, 218-228.	2.5	95
43	OSIRIS-REx: Sample Return from Asteroid (101955) Bennu. <i>Space Science Reviews</i> , 2017, 212, 925-984.	8.1	426
44	The compositional diversity of non-Vesta basaltic asteroids. <i>Icarus</i> , 2017, 295, 61-73.	2.5	18
45	Climate zones on Pluto and Charon. <i>Icarus</i> , 2017, 287, 30-36.	2.5	34
46	Long-term surface temperature modeling of Pluto. <i>Icarus</i> , 2017, 287, 37-46.	2.5	55
47	Craters of the Pluto-Charon system. <i>Icarus</i> , 2017, 287, 187-206.	2.5	59
48	The puzzling detection of x-rays from Pluto by Chandra. <i>Icarus</i> , 2017, 287, 103-109.	2.5	19
49	COMPOSITIONAL HOMOGENEITY OF CM PARENT BODIES. <i>Astronomical Journal</i> , 2016, 152, 54.	4.7	44
50	Compositional characterisation of the Themis family. <i>Astronomy and Astrophysics</i> , 2016, 586, A15.	5.1	29
51	The geophysical environment of Bennu. <i>Icarus</i> , 2016, 276, 116-140.	2.5	92
52	The formation of Charon's red poles from seasonally cold-trapped volatiles. <i>Nature</i> , 2016, 539, 65-68.	27.8	44
53	The atmosphere of Pluto as observed by New Horizons. <i>Science</i> , 2016, 351, aad8866.	12.6	201
54	Pluto's interaction with its space environment: Solar wind, energetic particles, and dust. <i>Science</i> , 2016, 351, aad9045.	12.6	60

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55	The geology of Pluto and Charon through the eyes of New Horizons. <i>Science</i> , 2016, 351, 1284-1293.	12.6	219
56	Surface compositions across Pluto and Charon. <i>Science</i> , 2016, 351, aad9189.	12.6	242
57	Pluto's insolation history: Latitudinal variations and effects on atmospheric pressure. <i>Icarus</i> , 2015, 250, 405-412.	2.5	30
58	INTERPLANETARY DUST PARTICLES AS SAMPLES OF ICY ASTEROIDS. <i>Astrophysical Journal</i> , 2015, 806, 204.	4.5	85
59	The Pluto system: Initial results from its exploration by New Horizons. <i>Science</i> , 2015, 350, aad1815.	12.6	407
60	Mars encounters cause fresh surfaces on some near-Earth asteroids. <i>Icarus</i> , 2014, 227, 112-122.	2.5	40
61	Unexpected D-type interlopers in the inner main belt. <i>Icarus</i> , 2014, 229, 392-399.	2.5	44
62	Observations of "fresh" and weathered surfaces on asteroid pairs and their implications on the rotational-fission mechanism. <i>Icarus</i> , 2014, 233, 9-26.	2.5	38
63	Dawn; the Vesta-HED connection; and the geologic context for eucrites, diogenites, and howardites. <i>Meteoritics and Planetary Science</i> , 2013, 48, 2090-2104.	1.6	185
64	High surface porosity as the origin of emissivity features in asteroid spectra. <i>Icarus</i> , 2012, 221, 1162-1172.	2.5	73
65	Asteroid (101955) 1999 RQ36: Spectroscopy from 0.4 to 2.4 μ m and meteorite analogs. <i>Icarus</i> , 2011, 216, 462-475.	2.5	156
66	Identifying meteorite source regions through near-Earth object spectroscopy. <i>Icarus</i> , 2010, 205, 419-429.	2.5	28
67	A spectroscopic comparison of HED meteorites and V-type asteroids in the inner Main Belt. <i>Icarus</i> , 2010, 208, 773-788.	2.5	100
68	Earth encounters as the origin of fresh surfaces on near-Earth asteroids. <i>Nature</i> , 2010, 463, 331-334.	27.8	143
69	Spectroscopy of B-type asteroids: Subgroups and meteorite analogs. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	77
70	An extension of the Bus asteroid taxonomy into the near-infrared. <i>Icarus</i> , 2009, 202, 160-180.	2.5	670
71	Solar wind as the origin of rapid reddening of asteroid surfaces. <i>Nature</i> , 2009, 458, 993-995.	27.8	173
72	Spectral properties and composition of potentially hazardous Asteroid (99942) Apophis. <i>Icarus</i> , 2009, 200, 480-485.	2.5	64

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73	Plausible parent bodies for enstatite chondrites and mesosiderites: Implications for Lutetia's fly-by. <i>Icarus</i> , 2009, 202, 477-486.	2.5	75
74	Pyroxene mineralogies of near-Earth vestoids. <i>Meteoritics and Planetary Science</i> , 2009, 44, 1331-1341.	1.6	94
75	Comets in the near-Earth object population. <i>Icarus</i> , 2008, 194, 436-449.	2.5	75
76	Compositional differences between meteorites and near-Earth asteroids. <i>Nature</i> , 2008, 454, 858-860.	27.8	133
77	Composition of the L5 Mars Trojans: Neighbors, not siblings. <i>Icarus</i> , 2007, 192, 434-441.	2.5	38
78	Bias-corrected population, size distribution, and impact hazard for the near-Earth objects. <i>Icarus</i> , 2004, 170, 295-311.	2.5	210
79	Observed spectral properties of near-Earth objects: results for population distribution, source regions, and space weathering processes. <i>Icarus</i> , 2004, 170, 259-294.	2.5	305
80	Dynamical and compositional assessment of near-Earth object mission targets. <i>Meteoritics and Planetary Science</i> , 2004, 39, 351-366.	1.6	72
81	High-calcium pyroxene as an indicator of igneous differentiation in asteroids and meteorites. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1343-1357.	1.6	96
82	Keck observations of near-Earth asteroids in the thermal infrared. <i>Icarus</i> , 2003, 166, 116-130.	2.5	146
83	Phase II of the Small Main-Belt Asteroid Spectroscopic Survey A Feature-Based Taxonomy. <i>Icarus</i> , 2002, 158, 146-177.	2.5	790
84	Phase II of the Small Main-Belt Asteroid Spectroscopic Survey The Observations. <i>Icarus</i> , 2002, 158, 106-145.	2.5	339
85	Small Main-Belt Asteroid Spectroscopic Survey in the Near-Infrared. <i>Icarus</i> , 2002, 159, 468-499.	2.5	101
86	Asteroid science: Two centuries young. <i>Meteoritics and Planetary Science</i> , 2001, 36, 327-328.	1.6	0
87	Vesta, Vestoids, and the howardite, eucrite, diogenite group: Relationships and the origin of spectral differences. <i>Meteoritics and Planetary Science</i> , 2001, 36, 761-781.	1.6	173
88	MUSE's target asteroid (25143) 1998 SF36: A reddened ordinary chondrite. <i>Meteoritics and Planetary Science</i> , 2001, 36, 1167-1172.	1.6	134
89	Small Main-Belt Asteroid Spectroscopic Survey: Initial Results. <i>Icarus</i> , 1995, 115, 1-35.	2.5	263
90	Grain Sizes and Mineral Compositions of Surface Regoliths of Vesta-like Asteroids. <i>Icarus</i> , 1995, 115, 374-386.	2.5	56

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91	Chips off of Asteroid 4 Vesta: Evidence for the Parent Body of Basaltic Achondrite Meteorites. Science, 1993, 260, 186-191.	12.6	640