Richard P Binzel

List of Publications by Year
in descending order

91	9,432	38742 50	43889 91
papers	citations	h-index	g-index

92	92	92	4104
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Phase II of the Small Main-Belt Asteroid Spectroscopic Survey A Feature-Based Taxonomy. Icarus, 2002, 158, 146-177.	2.5	790
2	An extension of the Bus asteroid taxonomy into the near-infrared. Icarus, 2009, 202, 160-180.	2.5	670
3	Chips off of Asteroid 4 Vesta: Evidence for the Parent Body of Basaltic Achondrite Meteorites. Science, 1993, 260, 186-191.	12.6	640
4	OSIRIS-REx: Sample Return from Asteroid (101955) Bennu. Space Science Reviews, 2017, 212, 925-984.	8.1	426
5	The Pluto system: Initial results from its exploration by New Horizons. Science, 2015, 350, aad1815.	12.6	407
6	Phase II of the Small Main-Belt Asteroid Spectroscopic Survey The Observations. Icarus, 2002, 158, 106-145.	2.5	339
7	Observed spectral properties of near-Earth objects: results for population distribution, source regions, and space weathering processes. Icarus, 2004, 170, 259-294.	2.5	305
8	Small Main-Belt Asteroid Spectroscopic Survey: Initial Results. Icarus, 1995, 115, 1-35.	2.5	263
9	Surface compositions across Pluto and Charon. Science, 2016, 351, aad9189.	12.6	242
10	The geology of Pluto and Charon through the eyes of New Horizons. Science, 2016, 351, 1284-1293.	12.6	219
11	Bias-corrected population, size distribution, and impact hazard for the near-Earth objects. Icarus, 2004, 170, 295-311.	2.5	210
12	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
13	Properties of rubble-pile asteroid (101955) Bennu from OSIRIS-REx imaging and thermal analysis. Nature Astronomy, 2019, 3, 341-351.	10.1	188
14	Dawn; the Vestaâ€“<scp>HED</scp> connection; and the geologic context for eucrites, diogenites, and howardites. Meteoritics and Planetary Science, 2013, 48, 2090-2104.	1.6	185
15	Vesta, Vestoids, and the howardite, eucrite, diogenite group: Relationships and the origin of spectral differences. Meteoritics and Planetary Science, 2001, 36, 761-781.	1.6	173
16	Solar wind as the origin of rapid reddening of asteroid surfaces. Nature, 2009, 458, 993-995.	27.8	173
17	Asteroid (101955) 1999 RQ36: Spectroscopy from 0.4 to 2.4Î¼m and meteorite analogs. Icarus, 2011, 216, 462-475.	2.5	156
18	Keck observations of near-Earth asteroids in the thermal infrared. Icarus, 2003, 166, 116-130.	2.5	146

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19	Earth encounters as the origin of fresh surfaces on near-Earth asteroids. Nature, 2010, 463, 331-334.	27.8	143
20	MUSESâ€€ target asteroid (25143) 1998 SF36: A reddened ordinary chondrite. Meteoritics and Planetary Science, 2001, 36, 1167-1172.	1.6	134
21	Compositional differences between meteorites and near-Earth asteroids. Nature, 2008, 454, 858-860.	27.8	133
22	Compositional distributions and evolutionary processes for the near-Earth object population: Results from the MIT-Hawaii Near-Earth Object Spectroscopic Survey (MITHNEOS). Icarus, 2019, 324, 41-76.	2.5	123
23	Impact craters on Pluto and Charon indicate a deficit of small Kuiper belt objects. Science, 2019, 363, 955-959.	12.6	116
24	Initial results from the New Horizons exploration of 2014 MU ₆₉ , a small Kuiper Belt object. Science, 2019, 364, .	12.6	113
25	Small Main-Belt Asteroid Spectroscopic Survey in the Near-Infrared. Icarus, 2002, 159, 468-499.	2.5	101
26	A spectroscopic comparison of HED meteorites and V-type asteroids in the inner Main Belt. Icarus, 2010, 208, 773-788.	2.5	100
27	Physical state and distribution of materials at the surface of Pluto from New Horizons LEISA imaging spectrometer. Icarus, 2017, 287, 229-260.	2.5	99
28	Highâ€calcium pyroxene as an indicator of igneous differentiation in asteroids and meteorites. Meteoritics and Planetary Science, 2004, 39, 1343-1357.	1.6	96
29	Plutoâ€™s global surface composition through pixel-by-pixel Hapke modeling of New Horizons Ralph/LEISA data. Icarus, 2017, 287, 218-228.	2.5	95
30	Pyroxene mineralogies of nearâ€Earth vestoids. Meteoritics and Planetary Science, 2009, 44, 1331-1341.	1.6	94
31	The geophysical environment of Bennu. Icarus, 2016, 276, 116-140.	2.5	92
32	INTERPLANETARY DUST PARTICLES AS SAMPLES OF ICY ASTEROIDS. Astrophysical Journal, 2015, 806, 204.	4.5	85
33	Dunes on Pluto. Science, 2018, 360, 992-997.	12.6	81
34	Spectroscopy of Bâ€type asteroids: Subgroups and meteorite analogs. Journal of Geophysical Research, 2010, 115, .	3.3	77
35	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	76
36	Comets in the near-Earth object population. Icarus, 2008, 194, 436-449.	2.5	75

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37	Plausible parent bodies for enstatite chondrites and mesosiderites: Implications for Lutetia's fly-by. Icarus, 2009, 202, 477-486.	2.5	75
38	High surface porosity as the origin of emissivity features in asteroid spectra. Icarus, 2012, 221, 1162-1172.	2.5	73
39	Dynamical and compositional assessment of nearâ€Earth object mission targets. Meteoritics and Planetary Science, 2004, 39, 351-366.	1.6	72
40	Spectral properties and composition of potentially hazardous Asteroid (99942) Apophis. Icarus, 2009, 200, 480-485.	2.5	64
41	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	64
42	Plutoâ€™s interaction with its space environment: Solar wind, energetic particles, and dust. Science, 2016, 351, aad9045.	12.6	60
43	Craters of the Pluto-Charon system. Icarus, 2017, 287, 187-206.	2.5	59
44	Exogenic basalt on asteroid (101955) Bennu. Nature Astronomy, 2021, 5, 31-38.	10.1	57
45	Grain Sizes and Mineral Compositions of Surface Regoliths of Vesta-like Asteroids. Icarus, 1995, 115, 374-386.	2.5	56
46	Long-term surface temperature modeling of Pluto. Icarus, 2017, 287, 37-46.	2.5	55
47	Past epochs of significantly higher pressure atmospheres on Pluto. Icarus, 2017, 287, 47-53.	2.5	54
48	Lucy Mission to the Trojan Asteroids: Science Goals. Planetary Science Journal, 2021, 2, 171.	3.6	54
49	Geological mapping of Sputnik Planitia on Pluto. Icarus, 2017, 287, 261-286.	2.5	52
50	Space weathering trends on carbonaceous asteroids: A possible explanation for Bennuâ€™s blue slope?. Icarus, 2018, 302, 10-17.	2.5	51
51	Pluto's haze as a surface material. Icarus, 2018, 314, 232-245.	2.5	50
52	Composition of Plutoâ€™s small satellites: Analysis of New Horizons spectral images. Icarus, 2018, 315, 30-45.	2.5	49
53	Olivine-dominated A-type asteroids in the main belt: Distribution, abundance and relation to families. Icarus, 2019, 322, 13-30.	2.5	49
54	Recent cryovolcanism in Virgil Fossae on Pluto. Icarus, 2019, 330, 155-168.	2.5	45

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55	Unexpected D-type interlopers in the inner main belt. Icarus, 2014, 229, 392-399.	2.5	44
56	COMPOSITIONAL HOMOGENEITY OF CM PARENT BODIES. Astronomical Journal, 2016, 152, 54.	4.7	44
57	The formation of Charonâ€™s red poles from seasonally cold-trapped volatiles. Nature, 2016, 539, 65-68.	27.8	44
58	New Horizons Observations of the Cosmic Optical Background. Astrophysical Journal, 2021, 906, 77.	4.5	42
59	Mars encounters cause fresh surfaces on some near-Earth asteroids. Icarus, 2014, 227, 112-122.	2.5	40
60	Composition of the L5 Mars Trojans: Neighbors, not siblings. Icarus, 2007, 192, 434-441.	2.5	38
61	Observations of â€œfreshâ€•and weathered surfaces on asteroid pairs and their implications on the rotational-fission mechanism. Icarus, 2014, 233, 9-26.	2.5	38
62	The CH4 cycles on Pluto over seasonal and astronomical timescales. Icarus, 2019, 329, 148-165.	2.5	38
63	Climate zones on Pluto and Charon. Icarus, 2017, 287, 30-36.	2.5	34
64	Twenty Years of SpeX: Accuracy Limits of Spectral Slope Measurements in Asteroid Spectroscopy. Astrophysical Journal, Supplement Series, 2020, 247, 73.	7.7	32
65	Anomalous Flux in the Cosmic Optical Background Detected with New Horizons Observations. Astrophysical Journal Letters, 2022, 927, L8.	8.3	32
66	On the origin & thermal stability of Arrokoth's and Pluto's ices. Icarus, 2021, 356, 114072.	2.5	31
67	Plutoâ€™s insolation history: Latitudinal variations and effects on atmospheric pressure. Icarus, 2015, 250, 405-412.	2.5	30
68	Charon tectonics. Icarus, 2017, 287, 161-174.	2.5	30
69	Compositional characterisation of the Themis family. Astronomy and Astrophysics, 2016, 586, A15.	5.1	29
70	Identifying meteorite source regions through near-Earth object spectroscopy. Icarus, 2010, 205, 419-429.	2.5	28
71	Connecting asteroids and meteorites with visible and near-infrared spectroscopy. Icarus, 2022, 380, 114971.	2.5	25
72	The distribution of H2O, CH3OH, and hydrocarbon-ices on Pluto: Analysis of New Horizons spectral images. Icarus, 2019, 331, 148-169.	2.5	21

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73	The puzzling detection of x-rays from Pluto by Chandra. Icarus, 2017, 287, 103-109.	2.5	19
74	The compositional diversity of non-Vesta basaltic asteroids. Icarus, 2017, 295, 61-73.	2.5	18
75	The Geophysical Environment of (486958) Arrokothâ€"A Small Kuiper Belt Object Explored by New Horizons. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	18
76	A Predicted Dearth of Majority Hypervolatile Ices in Oort Cloud Comets. Planetary Science Journal, 2022, 3, 112.	3.6	15
77	Inflight radiometric calibration of New Horizonsâ€™ Multispectral Visible Imaging Camera (MVIC). Icarus, 2017, 287, 140-151.	2.5	14
78	Great Expectations: Plans and Predictions for New Horizons Encounter With Kuiper Belt Object 2014 MU₆₉ (â€œUltima Thuleâ€). Geophysical Research Letters, 2018, 45, 8111-8120.	4.0	14
79	Methane distribution on Pluto as mapped by the New Horizons Ralph/MVIC instrument. Icarus, 2018, 314, 195-209.	2.5	14
80	Active Asteroid (6478) Gault: A Blue Q-type Surface below the Dust?. Astrophysical Journal Letters, 2019, 882, L2.	8.3	14
81	The Debiased Compositional Distribution of MITHNEOS: Global Match between the Near-Earth and Main-belt Asteroid Populations, and Excess of D-type Near-Earth Objects. Astronomical Journal, 2022, 163, 165.	4.7	13
82	Can Formulas Derived From Pyroxenes and/or HEDs Be Used to Determine the Mineralogies of Vâ€Type Asteroids?. Journal of Geophysical Research E: Planets, 2018, 123, 1791-1803.	3.6	11
83	The Orbit and Density of the Jupiter Trojan Satellite System Eurybatesâ€“Queta. Planetary Science Journal, 2021, 2, 170.	3.6	10
84	Near-infrared thermal emission from near-Earth asteroids: Aspect-dependent variability. Icarus, 2017, 284, 97-105.	2.5	9
85	Investigation of Charon's Craters With Abrupt Terminus Ejecta, Comparisons With Other Icy Bodies, and Formation Implications. Journal of Geophysical Research E: Planets, 2018, 123, 20-36.	3.6	9
86	A Near-surface Temperature Model of Arrokoth. Planetary Science Journal, 2022, 3, 110.	3.6	9
87	The Appearance of a â€œFreshâ€•Surface on 596 Scheila as a Consequence of the 2010 Impact Event. Astrophysical Journal Letters, 2022, 924, L9.	8.3	7
88	The surface sensitivity of rubble-pile asteroids during a distant planetary encounter: Influence of asteroid shape elongation. Icarus, 2021, 358, 114205.	2.5	6
89	Pluto's Sputnik Planitia: Composition of geological units from infrared spectroscopy. Icarus, 2021, 359, 114303.	2.5	5
90	Tracing seasonal trends across Plutoâ€™s craters: New Horizons Ralph/MVIC results. Icarus, 2022, 373, 114771.	2.5	1

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91	Asteroid science: Two centuries young. Meteoritics and Planetary Science, 2001, 36, 327-328.	1.6	0