Amy C Barr

List of Publications by Year
in descending order

25 papers	1,044 citations	430874 18 h-index	642732 23 g-index
25 all docs	25 docs citations	25 times ranked	969 citing authors

#	Article	IF	Citations
1	The origin of domes on Europa: The role of thermally induced compositional diapirism. Geophysical Research Letters, 2004, 31, .	4.0	102
2	Modeling stresses on satellites due to nonsynchronous rotation and orbital eccentricity using gravitational potential theory. Icarus, 2009, 200, 188-206.	2.5	91
3	Convection in ice I shells and mantles with self-consistent grain size. Journal of Geophysical Research, 2007, 112, .	3.3	88
4	Enceladus: An Active Cryovolcanic Satellite. , 2009, , 683-724.		65
5	Onset of convection in the icy Galilean satellites: Influence of rheology. Journal of Geophysical Research, 2005, 110, .	3.3	61
6	Constraints on gas giant satellite formation from the interior states of partially differentiated satellites. Icarus, 2008, 198, 163-177.	2.5	61
7	Mobile lid convection beneath Enceladus' south polar terrain. Journal of Geophysical Research, 2008, 113, .	3.3	59
8	On the origin of Earth's Moon. Journal of Geophysical Research E: Planets, 2016, 121, 1573-1601.	3.6	53
9	Recent tectonic activity on Pluto driven by phase changes in the ice shell. Geophysical Research Letters, 2016, 43, 6775-6782.	4.0	52
10	Interior structures and tidal heating in the TRAPPIST-1 planets. Astronomy and Astrophysics, 2018, 613, A37.	5.1	49
11	Origin of a partially differentiated Titan. Icarus, 2010, 209, 858-862.	2.5	42
12	Interpreting the densities of the Kuiper belt's dwarf planets. Monthly Notices of the Royal Astronomical Society, 2016, 460, 1542-1548.	4.4	38
13	Convective instability in ice I with non-Newtonian rheology: Application to the icy Galilean satellites. Journal of Geophysical Research, 2004, 109, .	3.3	37
14	Scaling of melt production in hypervelocity impacts from high-resolution numerical simulations. Icarus, 2011, 211, 913-916.	2.5	37
15	Global resurfacing of Uranusâ€™s moon Miranda by convection. Geology, 2014, 42, 931-934.	4.4	31
16	Tidal heating and the habitability of the TRAPPIST-1 exoplanets. Astronomy and Astrophysics, 2019, 624, A2.	5.1	30
17	Formation of Ganymedeâ€™s grooved terrain by convection-driven resurfacing. Icarus, 2014, 227, 206-209.	2.5	26
18	Compaction and Melt Transport in Ammoniaâ€Rich Ice Shells: Implications for the Evolution of Triton. Journal of Geophysical Research E: Planets, 2018, 123, 3105-3118.	3.6	25

#	Article	IF	Citations
19	Enhanced Mixing in Giant Impact Simulations with a New Lagrangian Method. Astrophysical Journal, 2019, 870, 127.	4.5	21
20	Forecasting Rates of Volcanic Activity on Terrestrial Exoplanets and Implications for Cryovolcanic Activity on Extrasolar Ocean Worlds. Publications of the Astronomical Society of the Pacific, 2020, 132, 084402.	3.1	19
21	Experimental Constraints on the Fatigue of Icy Satellite Lithospheres by Tidal Forces. Journal of Geophysical Research E: Planets, 2018, 123, 390-404.	3.6	17
22	Formation of exomoons: a solar system perspective. The Astronomical Review, 2016, 12, 24-52.	4.0	16
23	The mass and density of the dwarf planet (225088) 2007 OR10. Icarus, 2019, 334, 3-10.	2.5	16
24	Scientific Research Identity Development Need Not Wait Until College: Examining the Motivational Impact of a Pre-college Authentic Research Experience. Research in Science Education, 2022, 52, 1481-1496.	2.3	8
25	Pluto's telltale heart. Nature, 2016, 540, 42-43.	27.8	0