Qiquan Quan

List of Publications by Year
in descending order

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61	745	471509	580821
papers	citations	17 h-index	25 g-index

61	61	61	425
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Gas-driven asteroid regolith sampling device based on disk-shaped cutter. Planetary and Space Science, 2022, 214, 105448.	1.7	5
2	An asteroid anchoring method based on cross-drilling geometric force closure of ultrasonic drill. Acta Astronautica, 2021, 178, 813-823.	3.2	16
3	Technical progress in landing mechanisms for exploring small solar system bodies. Progress in Aerospace Sciences, 2021, 122, 100697.	12.1	10
4	Effect of hyperthermal cryogenic environments on the performance of piezoelectric transducer. Applied Thermal Engineering, 2021, 193, 116725.	6.0	11
5	Investigation on the ultimate uplift capacity for asteroid exploration in drilling anchoring process: Numerical modelling and DEM simulation. Advances in Space Research, 2021, 68, 3026-3036.	2.6	8
6	Dynamic-compacting based lunar soil simulant preparation for subsurface exploration. Acta Astronautica, 2020, 167, 222-231.	3.2	7
7	Ultrasonic tool for the realization of combined action during the drilling of extraterrestrial objects. Journal of Physics: Conference Series, 2020, 1679, 042033.	0.4	0
8	A combined series-elastic actuator & parallel-elastic leg no-latch bio-inspired jumping robot. Mechanism and Machine Theory, 2020, 149, 103814.	4.5	25
9	Development of a Two-Dimensional Linear Piezoelectric Stepping Platform Using Longitudinal-Bending Hybrid Actuators. IEEE Transactions on Industrial Electronics, 2019, 66, 3030-3040.	7.9	100
10	Experimental investigation on hover performance of a single-rotor system for Mars helicopter. Aerospace Science and Technology, 2019, 86, 582-591.	4.8	23
11	Soil simulant preparation for lunar deep drilling exploration: Modeling and validation. Planetary and Space Science, 2019, 173, 1-13.	1.7	8
12	Design and Experiments of a Novel Rotary Piezoelectric Actuator Using Longitudinalâ€“Torsional Convertors. IEEE Access, 2019, 7, 22186-22195.	4.2	16
13	A Legged Device Based on Active Buffering for Probe Landing on Micro-gravitational Asteroid. , 2019, , .		2
14	Geometry shape selection of NACA airfoils for Mars rotorcraft. Acta Astronautica, 2019, 157, 300-309.	3.2	8
15	A longitudinal & longitudinal-torsional vibration actuator for rotary-percussive ultrasonic planetary drills. Advances in Space Research, 2019, 63, 1065-1072.	2.6	21
16	Design and experimental study on an ultrasonic bearing with bidirectional carrying capacity. Sensors and Actuators A: Physical, 2018, 273, 58-66.	4.1	12
17	Experimental investigation on flowing characteristics of flexible tube coring in lunar sampling missions. Powder Technology, 2018, 326, 16-24.	4.2	15
18	An Inchworm Type Piezoelectric Actuator Working in Resonant State. IEEE Access, 2018, 6, 18975-18983.	4.2	45

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19	On the modeling of levitation force for ultrasonic journal bearings actuated by piezoelectric transducers. Journal of Intelligent Material Systems and Structures, 2018, 29, 1113-1119.	2.5	5
20	Investigating the soil removal characteristics of flexible tube coring method for lunar exploration. Advances in Space Research, 2018, 61, 799-810.	2.6	20
21	Development of a Percussive Ultrasonic Drill Driver. , 2018, , .		0
22	Development of a three-DOF piezoelectric actuator using a thin cross-beam vibrator. International Journal of Mechanical Sciences, 2018, 149, 54-61.	6.7	47
23	Rotary-Percussive Ultrasonic Drill: An Effective Subsurface Penetrating Tool for Minor Planet Exploration. IEEE Access, 2018, 6, 37796-37806.	4.2	21
24	Optimization and Analysis of a U-Shaped Linear Piezoelectric Ultrasonic Motor Using Longitudinal Transducers. Sensors, 2018, 18, 809.	3.8	29
25	A Quadruped Micro-Robot Based on Piezoelectric Driving. Sensors, 2018, 18, 810.	3.8	23
26	Impact Dynamics Prediction of a Rotary-Percussive Ultrasonic Drill With a Free Mass. IEEE Access, 2018, 6, 32649-32661.	4.2	5
27	A soil flowing characteristics monitoring method in planetary drilling and coring verification experiments. Advances in Space Research, 2017, 59, 1341-1352.	2.6	19
28	Drilling load modeling and validation based on the filling rate of auger flute in planetary sampling. Chinese Journal of Aeronautics, 2017, 30, 434-446.	5.3	33
29	Recovery rate prediction in lunar regolith simulant drilling. Acta Astronautica, 2017, 133, 121-127.	3.2	21
30	A continuous contact force model of planar revolute joint based on fitting method. Advances in Mechanical Engineering, 2017, 9, 168781401769047.	1.6	1
31	Experimental evaluating approach to a suitable Martian coaxial rotorcraft blade. , 2017, , .		1
32	Air rudder mechanism dynamics considering two elements: Joint clearance and link flexibility. Journal of Mechanical Science and Technology, 2017, 31, 3189-3197.	1.5	6
33	Development of a rotary-percussive ultrasonic drill for extraterrestrial rock sampling. , 2017, , .		1
34	Design of experimental setups for evaluating hover performance of a Martian coaxial rotorcraft. , 2017, , .		2
35	Development of a rotary-percussive ultrasonic drill for extraterrestrial rock sampling. , 2017, , .		1
36	Development of a novel noncontact ultrasonic bearing actuated by piezoelectric transducers. , 2017, , .		0

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37	Thermal Analysis of the Driving Component Based on the Thermal Network Method in a Lunar Drilling System and Experimental Verification. Energies, 2017, 10, 355.	3.1	4
38	Impact Dynamics of a Percussive System Based on Rotary-Percussive Ultrasonic Drill. Shock and Vibration, 2017, 2017, 1-10.	0.6	4
39	Development of a novel noncontact ultrasonic bearing actuated by piezoelectric transducers. , 2017, , .		0
40	Prediction of the temperature of a drill in drilling lunar rock simulant in a vacuum. Thermal Science, 2017, 21, 989-1002.	1.1	13
41	A Novel Noncontact Ultrasonic Levitating Bearing Excited by Piezoelectric Ceramics. Applied Sciences (Switzerland), 2016, 6, 280.	2.5	22
42	Drilling states monitoring for a planetary drilling & coring testbed (PDCT): Method and design. , 2016, , .		1
43	A model for static contact of revolute cylinder based on geometric constraint and elastic half-space theory. , 2016, , .		0
44	A Rotary-Percussive Ultrasonic Drill for planetary rock sampling. , 2016, , .		5
45	The research on the effects of motion parameter on adhesive ability of a lunar crater exploration rover wheel based on DEM simulation. , 2016, , .		1
46	Vibratory compaction method for preparing lunar regolith drilling simulant. Advances in Space Research, 2016, 58, 145-154.	2.6	22
47	Impact dynamics of a differential gears based underactuated robotic arm for moving target capturing. Mechatronics, 2016, 40, 208-219.	3.3	6
48	Multi-state autonomous drilling for lunar exploration. Chinese Journal of Aeronautics, 2016, 29, 1397-1404.	5.3	2
49	Drilling power consumption and soil conveying volume performances of lunar sampling auger. Chinese Journal of Mechanical Engineering (English Edition), 2015, 28, 451-459.	3.7	25
50	Development of a waterproof servo unit for amphibious robots. , 2015, , .		5
51	A real-time recognition based drilling strategy for lunar exploration. , 2014, , .		7
52	ANFIS-based control strategy for a drilling and coring device in lunar exploration. , 2014, , .		0
53	Dynamic modeling and analysis of rotating mechanism in planetary soil drilling sampler. , 2014, , .		2
54	Development of a drilling and coring test-bed for lunar subsurface exploration and preliminary experiments. Chinese Journal of Mechanical Engineering (English Edition), 2014, 27, 673-682.	3.7	20

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55	Control system for a drilling & coring device in lunar exploration. , 2013, , .		6
56	A planetary gear based underactuated self-adaptive robotic finger. , 2013, , .		5
57	A pre-treating device for drilling sample in lunar exploration. , 2013, , .		0
58	Development of a rotary-percussive drilling mechanism (RPDM). , 2012, , .		8
59	Development of a Modular Crawler for Tracked Robots. Advanced Robotics, 2011, 25, 1839-1849.	1.8	3
60	Controllable postures of a dual-crawler-driven robot. Mechatronics, 2010, 20, 281-292.	3.3	9
61	Impact Analysis of a Dual-Crawler-Driven Robot. Advanced Robotics, 2009, 23, 1779-1797.	1.8	8