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	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
2	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
3	An Inchworm Type Piezoelectric Actuator Working in Resonant State. IEEE Access, 2018, 6, 18975-18983.	4.2	45
4	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
5	Optimization and Analysis of a U-Shaped Linear Piezoelectric Ultrasonic Motor Using Longitudinal Transducers. Sensors, 2018, 18, 809.	3.8	29
6	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
7	A combined series-elastic actuator & parallel-elastic leg no-latch bio-inspired jumping robot. Mechanism and Machine Theory, 2020, 149, 103814.	4.5	25
8	A Quadruped Micro-Robot Based on Piezoelectric Driving. Sensors, 2018, 18, 810.	3.8	23
9	Experimental investigation on hover performance of a single-rotor system for Mars helicopter. Aerospace Science and Technology, 2019, 86, 582-591.	4.8	23
10	A Novel Noncontact Ultrasonic Levitating Bearing Excited by Piezoelectric Ceramics. Applied Sciences (Switzerland), 2016, 6, 280.	2.5	22
11	Vibratory compaction method for preparing lunar regolith drilling simulant. Advances in Space Research, 2016, 58, 145-154.	2.6	22
12	Recovery rate prediction in lunar regolith simulant drilling. Acta Astronautica, 2017, 133, 121-127.	3.2	21
13	Rotary-Percussive Ultrasonic Drill: An Effective Subsurface Penetrating Tool for Minor Planet Exploration. IEEE Access, 2018, 6, 37796-37806.	4.2	21
14	A longitudinal & longitudinal-torsional vibration actuator for rotary-percussive ultrasonic planetary drills. Advances in Space Research, 2019, 63, 1065-1072.	2.6	21
15	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
16	Investigating the soil removal characteristics of flexible tube coring method for lunar exploration. Advances in Space Research, 2018, 61, 799-810.	2.6	20
17	A soil flowing characteristics monitoring method in planetary drilling and coring verification experiments. Advances in Space Research, 2017, 59, 1341-1352.	2.6	19
18	Design and Experiments of a Novel Rotary Piezoelectric Actuator Using Longitudinalâ€“Torsional Convertors. IEEE Access, 2019, 7, 22186-22195.	4.2	16

#	Article	IF	Citations
19	An asteroid anchoring method based on cross-drilling geometric force closure of ultrasonic drill. Acta Astronautica, 2021, 178, 813-823.	3.2	16
20	Experimental investigation on flowing characteristics of flexible tube coring in lunar sampling missions. Powder Technology, 2018, 326, 16-24.	4.2	15
21	Prediction of the temperature of a drill in drilling lunar rock simulant in a vacuum. Thermal Science, 2017, 21, 989-1002.	1.1	13
22	Design and experimental study on an ultrasonic bearing with bidirectional carrying capacity. Sensors and Actuators A: Physical, 2018, 273, 58-66.	4.1	12
23	Effect of hyperthermal cryogenic environments on the performance of piezoelectric transducer. Applied Thermal Engineering, 2021, 193, 116725.	6.0	11
24	Technical progress in landing mechanisms for exploring small solar system bodies. Progress in Aerospace Sciences, 2021, 122, 100697.	12.1	10
25	Controllable postures of a dual-crawler-driven robot. Mechatronics, 2010, 20, 281-292.	3.3	9
26	Impact Analysis of a Dual-Crawler-Driven Robot. Advanced Robotics, 2009, 23, 1779-1797.	1.8	8
27	Development of a rotary-percussive drilling mechanism (RPDM). , 2012, , .		8
28	Soil simulant preparation for lunar deep drilling exploration: Modeling and validation. Planetary and Space Science, 2019, 173, 1-13.	1.7	8
29	Geometry shape selection of NACA airfoils for Mars rotorcraft. Acta Astronautica, 2019, 157, 300-309.	3.2	8
30	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
31	A real-time recognition based drilling strategy for lunar exploration. , 2014, , .		7
32	Dynamic-compacting based lunar soil simulant preparation for subsurface exploration. Acta Astronautica, 2020, 167, 222-231.	3.2	7
33	Control system for a drilling & coring device in lunar exploration. , 2013, , .		6
34	Impact dynamics of a differential gears based underactuated robotic arm for moving target capturing. Mechatronics, 2016, 40, 208-219.	3.3	6
35	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
36	A planetary gear based underactuated self-adaptive robotic finger. , 2013, , .		5

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37	Development of a waterproof servo unit for amphibious robots. , 2015, , .		5
38	A Rotary-Percussive Ultrasonic Drill for planetary rock sampling. , 2016, , .		5
39	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
40	Impact Dynamics Prediction of a Rotary-Percussive Ultrasonic Drill With a Free Mass. IEEE Access, 2018, 6, 32649-32661.	4.2	5
41	Gas-driven asteroid regolith sampling device based on disk-shaped cutter. Planetary and Space Science, 2022, 214, 105448.	1.7	5
42	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
43	Impact Dynamics of a Percussive System Based on Rotary-Percussive Ultrasonic Drill. Shock and Vibration, 2017, 2017, 1-10.	0.6	4
44	Development of a Modular Crawler for Tracked Robots. Advanced Robotics, 2011, 25, 1839-1849.	1.8	3
45	Dynamic modeling and analysis of rotating mechanism in planetary soil drilling sampler. , 2014, , .		2
46	Multi-state autonomous drilling for lunar exploration. Chinese Journal of Aeronautics, 2016, 29, 1397-1404.	5.3	2
47	Design of experimental setups for evaluating hover performance of a Martian coaxial rotorcraft. , 2017, , .		2
48	A Legged Device Based on Active Buffering for Probe Landing on Micro-gravitational Asteroid. , 2019, , .		2
49	Drilling states monitoring for a planetary drilling & coring testbed (PDCT): Method and design. , 2016, , .		1
50	The research on the effects of motion parameter on adhesive ability of a lunar crater exploration rover wheel based on DEM simulation. , 2016, , .		1
51	A continuous contact force model of planar revolute joint based on fitting method. Advances in Mechanical Engineering, 2017, 9, 168781401769047.	1.6	1
52	Experimental evaluating approach to a suitable Martian coaxial rotorcraft blade. , 2017, , .		1
53	Development of a rotary-percussive ultrasonic drill for extraterrestrial rock sampling. , 2017, , .		1
54	Development of a rotary-percussive ultrasonic drill for extraterrestrial rock sampling. , 2017, , .		1

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55	A pre-treating device for drilling sample in lunar exploration. , 2013, , .		0
56	ANFIS-based control strategy for a drilling and coring device in lunar exploration. , 2014, , .		0
57	A model for static contact of revolute cylinder based on geometric constraint and elastic half-space theory. , 2016, , .		0
58	Development of a novel noncontact ultrasonic bearing actuated by piezoelectric transducers. , 2017, , .		0
59	Development of a novel noncontact ultrasonic bearing actuated by piezoelectric transducers. , 2017, , .		0
60	Development of a Percussive Ultrasonic Drill Driver. , 2018, , .		0
61	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