

Michael Varenberg

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

3,203
citations

201575
27
h-index

168321
53
g-index

64
all docs

64
docs citations

64
times ranked

2231
citing authors

#	ARTICLE	IF	CITATIONS
1	Biomimetic mushroom-shaped fibrillar adhesive microstructure. <i>Journal of the Royal Society Interface</i> , 2007, 4, 271-275.	1.5	447
2	An improved wedge calibration method for lateral force in atomic force microscopy. <i>Review of Scientific Instruments</i> , 2003, 74, 3362-3367.	0.6	374
3	Different aspects of the role of wear debris in fretting wear. <i>Wear</i> , 2002, 252, 902-910.	1.5	295
4	Hexagonal Surface Micropattern for Dry and Wet Friction. <i>Advanced Materials</i> , 2009, 21, 483-486.	11.1	207
5	Spatulate structures in biological fibrillar adhesion. <i>Soft Matter</i> , 2010, 6, 3269.	1.2	168
6	Shearing of fibrillar adhesive microstructure: friction and shear-related changes in pull-off force. <i>Journal of the Royal Society Interface</i> , 2007, 4, 721-725.	1.5	133
7	Mushroom-shaped geometry of contact elements in biological adhesive systems. <i>Journal of Adhesion Science and Technology</i> , 2007, 21, 1175-1183.	1.4	131
8	Slip Index: A New Unified Approach to Fretting. <i>Tribology Letters</i> , 2004, 17, 569-573.	1.2	113
9	A beetle-inspired solution for underwater adhesion. <i>Journal of the Royal Society Interface</i> , 2008, 5, 383-385.	1.5	100
10	Close-up of mushroom-shaped fibrillar adhesive microstructure: contact element behaviour. <i>Journal of the Royal Society Interface</i> , 2008, 5, 785-789.	1.5	92
11	Tuning elastomer friction by hexagonal surface patterning. <i>Soft Matter</i> , 2011, 7, 5553.	1.2	81
12	A novel test rig for in situ and real time optical measurement of the contact area evolution during pre-sliding of a spherical contact. <i>Tribology Letters</i> , 2006, 23, 55-63.	1.2	79
13	Suction component in adhesion of mushroom-shaped microstructure. <i>Journal of the Royal Society Interface</i> , 2011, 8, 585-589.	1.5	69
14	Effect of real contact geometry on adhesion. <i>Applied Physics Letters</i> , 2006, 89, 121905.	1.5	62
15	Wet versus dry adhesion of biomimetic mushroom-shaped microstructures. <i>Soft Matter</i> , 2012, 8, 7560.	1.2	59
16	Use of biomimetic hexagonal surface texture in friction against lubricated skin. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140113.	1.5	54
17	Geometry-controlled adhesion: revisiting the contact splitting hypothesis. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 103, 933-938.	1.1	52
18	Experimental Investigation of the Elastic-Plastic Contact Area and Static Friction of a Sphere on Flat. <i>Journal of Tribology</i> , 2005, 127, 47-50.	1.0	47

#	ARTICLE	IF	CITATIONS
19	Towards a unified classification of wear. <i>Friction</i> , 2013, 1, 333-340.	3.4	46
20	Advanced testing of adhesion and friction with a microtribometer. <i>Review of Scientific Instruments</i> , 2006, 77, 066105.	0.6	40
21	Nanoscale fretting wear study by scanning probe microscopy. <i>Tribology Letters</i> , 2005, 18, 493-498.	1.2	39
22	First mushroom-shaped adhesive microstructure: A review. <i>Theoretical and Applied Mechanics Letters</i> , 2012, 2, 014008.	1.3	35
23	Dry friction and wear of self-lubricating carbon-nanotube-containing surfaces. <i>Wear</i> , 2018, 406-407, 33-42.	1.5	34
24	Biomimetic wall-shaped hierarchical microstructure for gecko-like attachment. <i>Soft Matter</i> , 2015, 11, 2909-2915.	1.2	33
25	Wear debris and electrical resistance in textured Sn-coated Cu contacts subjected to fretting. <i>Wear</i> , 2015, 344-345, 86-98.	1.5	33
26	Elimination of Stick-Slip Motion in Sliding of Split or Rough Surface. <i>Tribology Letters</i> , 2014, 53, 395-399.	1.2	31
27	Effect of counterface roughness on adhesion of mushroom-shaped microstructure. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20130620.	1.5	30
28	Crosstalk problems in scanning-by-probe atomic force microscopy. <i>Review of Scientific Instruments</i> , 2003, 74, 3569-3571.	0.6	28
29	Tribometer for In Situ Scanning Electron Microscopy of Microstructured Contacts. <i>Tribology Letters</i> , 2011, 41, 319-323.	1.2	27
30	Theoretical Substantiation of the Slip Index Approach to Fretting. <i>Tribology Letters</i> , 2005, 19, 263-264.	1.2	26
31	Biomimetic wall-shaped adhesive microstructure for shear-induced attachment: the effects of pulling angle and preliminary displacement. <i>Journal of the Royal Society Interface</i> , 2017, 14, 20170832.	1.5	21
32	How tight are beetle hugs? Attachment in mating leaf beetles. <i>Royal Society Open Science</i> , 2017, 4, 171108.	1.1	18
33	Table Tennis Rubber: Tribological Characterization. <i>Tribology Letters</i> , 2012, 47, 51-56.	1.2	16
34	Schallamach waves in rolling: Belt drives. <i>Tribology International</i> , 2018, 119, 354-358.	3.0	16
35	Fretting wear of thin diamond films deposited on steel substrates. <i>Diamond and Related Materials</i> , 2004, 13, 1731-1739.	1.8	15
36	Adjusting for Running-in: Extension of the Archard Wear Equation. <i>Tribology Letters</i> , 2022, 70, 1.	1.2	15

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37	Gripping ease in southern green stink bugs <i>Nezara viridula</i> L. (Heteroptera: Pentatomidae): Coping with geometry, orientation and surface wettability of substrate. <i>Entomological Science</i> , 2019, 22, 105-118.	0.3	14
38	Contact splitting in dry adhesion and friction: reducing the influence of roughness. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 1-8.	1.5	13
39	Assessing workability of greased bearings after long-term storage. <i>Friction</i> , 2019, 7, 489-496.	3.4	12
40	Mechano-Chemical Surface Modification with Cu ₂ S: Inducing Superior Lubricity. <i>Tribology Letters</i> , 2016, 64, 1.	1.2	11
41	Effect of structure of carbon films on their tribological properties. <i>Diamond and Related Materials</i> , 2013, 38, 79-86.	1.8	10
42	Belt-Drive Mechanics: Friction in the Absence of Sliding. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2019, 86, .	1.1	9
43	Electric Contact Material Selection for Medium and High Voltage DC Circuit Breakers. <i>Transactions on Electrical and Electronic Materials</i> , 2020, 21, 329-338.	1.0	9
44	Schallamach Wave-Induced Instabilities in a Belt-Drive System. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2019, 86, .	1.1	8
45	Robust, universal, and persistent bud secretion adhesion in horse-chestnut trees. <i>Scientific Reports</i> , 2020, 10, 16925.	1.6	8
46	Drawing-Based Manufacturing of Shear-Activated Reversible Adhesives. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 20075-20083.	4.0	8
47	Minimizing self-oscillation in belt drives: Surface texturing. <i>Tribology International</i> , 2020, 145, 106157.	3.0	6
48	Table Tennis: Preliminary Displacement in Pimples-Out Rubber. <i>Tribology Letters</i> , 2014, 53, 101-105.	1.2	5
49	Biomimetic wall-shaped hierarchical micro-structure: numerical simulation of sliding inception. <i>Bioinspiration and Biomimetics</i> , 2020, 15, 046011.	1.5	5
50	Friction characteristics of preventative wound dressings under clinically relevant conditions. <i>Wound Repair and Regeneration</i> , 2021, 29, 280-283.	1.5	5
51	Testing peel adhesion of flexible films: banknote substrates. <i>Journal of Adhesion Science and Technology</i> , 2014, 28, 630-634.	1.4	4
52	Comparison of tarsal attachment in two closely related leaf beetle species. <i>Journal of Insect Physiology</i> , 2020, 127, 104158.	0.9	3
53	Mechano-Chemical Surface Modification of High-Speed Steel Cutting Tools. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2019, 141, .	1.3	2
54	Polyurethane Shear-Activated Adhesives: Effect of Counterface Chemistry. <i>ACS Applied Polymer Materials</i> , 2020, 2, 2994-3000.	2.0	2

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55	Adhesion and Friction of a Biomimetic Mushroom-Shaped Fibrillar Microstructure. , 2007, , .		1
56	Analysis of mechanochemical reaction in dual shot peening. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 0, , 1-19.	1.3	1
57	Electric Field Between Contacts of Fast Mechanical Switches Subjected to Fretting Wear. , 2020, , .		1
58	Biologically inspired reversible adhesives: where are we now?. , 2012, , .		0
59	Elastomer vs. ceramic in cyclically loaded contact: What wears less?. Tribology International, 2016, 103, 641-646.	3.0	0
60	Experimental Exploration of Schallamach Waves in a Multibody Belt-Drive Dynamical System. , 2017, , .		0
61	Experimental Exploration of Schallamach Waves and Self-Excitation in a Belt-Drive System. , 2018, , .		0
62	Table Tennis: Effect of Humidity on Racket Rubber Tribology. Tribology Letters, 2021, 69, 1.	1.2	0
63	Amplification factor in shear-activated adhesives: effect of elasticity. Soft Matter, 2021, 17, 9087-9093.	1.2	0
64	Detachment Waves and Self-Oscillation in a Belt-Drive System Incorporating Tensile Cords. Journal of Vibration and Acoustics, Transactions of the ASME, 2020, 142, .	1.0	0