

# Musuvathi S Bobji

## List of Publications by Year in descending order

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54  
papers

1,099  
citations

706676

14  
h-index

445137

33  
g-index

54  
all docs

54  
docs citations

54  
times ranked

1479  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cone cracks in tissue-mimicking hydrogels during hypodermic needle insertion: the role of water content. <i>Soft Matter</i> , 2022, 18, 3521-3530.	1.2	5
2	Nanoparticle-reinforced polyacrylamide hydrogel composites for clinical applications: a review. <i>Journal of Materials Science</i> , 2022, 57, 8041-8063.	1.7	15
3	Needle insertion-induced quasiperiodic cone cracks in hydrogel. <i>Soft Matter</i> , 2021, 17, 2823-2831.	1.2	4
4	High-Strength, Strongly Bonded Nanocomposite Hydrogels for Cartilage Repair. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 24505-24523.	4.0	50
5	Formation of a hard surface layer during drying of a heated porous media. <i>PLoS ONE</i> , 2020, 15, e0229723.	1.1	1
6	Engineering interfacial entropic effects to generate giant viscosity changes in nanoparticle embedded polymer thin films. <i>Soft Matter</i> , 2020, 16, 4065-4073.	1.2	4
7	Formation of a hard surface layer during drying of a heated porous media. , 2020, 15, e0229723.		0
8	Formation of a hard surface layer during drying of a heated porous media. , 2020, 15, e0229723.		0
9	Formation of a hard surface layer during drying of a heated porous media. , 2020, 15, e0229723.		0
10	Formation of a hard surface layer during drying of a heated porous media. , 2020, 15, e0229723.		0
11	Controlled Growth of Highly Aligned Cu Nanowires by Pulse Electrodeposition in Nanoporous Alumina. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 4254-4259.	0.9	7
12	A new method to study evaporation of sessile drop from permeable surfaces. <i>Measurement Science and Technology</i> , 2019, 30, 075002.	1.4	7
13	Dynamic stretching of a liquid bridge. <i>International Journal of Advances in Engineering Sciences and Applied Mathematics</i> , 2019, 11, 238-243.	0.7	4
14	Effect of micropillar surface texturing on friction under elastic dry reciprocating contact. <i>Meccanica</i> , 2018, 53, 2221-2235.	1.2	8
15	Design of High Stiffness Inertial Slider for in-Situ TEM. , 2018, , .		0
16	Active thermal cooling using liquid dielectrophoresis. , 2016, , .		0
17	Detecting stages of needle penetration into tissues through force estimation at needle tip using fiber Bragg grating sensors. <i>Journal of Biomedical Optics</i> , 2016, 21, 127009.	1.4	14
18	Quantitative characterization of adhesion and stiffness of corneal lens of <i>Drosophila melanogaster</i> using atomic force microscopy. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 53, 161-173.	1.5	15

#	ARTICLE	IF	CITATIONS
19	Frictional force measurement during stick-slip motion of a piezoelectric walker. , 2015, , .		4
20	Effect of absolute pressure on flow through a textured hydrophobic microchannel. Microfluidics and Nanofluidics, 2015, 19, 1409-1427.	1.0	28
21	A non-resonant mass sensor to eliminate the "missing mass" effect during mass measurement of biological materials. Review of Scientific Instruments, 2014, 85, 105006.	0.6	3
22	Energy Loss in the Impact of Elastic Spheres on a Rigid Half-Space in Presence of Adhesion. Tribology Letters, 2014, 53, 79-89.	1.2	9
23	Effect of contact stresses on shape recovery of NiTiCu thin films. Thin Solid Films, 2014, 564, 306-313.	0.8	3
24	Controlling air solubility to maintain "Cassie" state for sustained drag reduction. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 459, 217-224.	2.3	49
25	Evolution of Surface Roughness During Electropolishing. Tribology Letters, 2014, 55, 93-101.	1.2	20
26	Effect of wettability and surface roughness on ice-adhesion strength of hydrophilic, hydrophobic and superhydrophobic surfaces. Applied Surface Science, 2014, 314, 241-250.	3.1	234
27	On Using Nanoporous Alumina Films as Tribological Coating. Lecture Notes in Mechanical Engineering, 2014, , 403-409.	0.3	0
28	Surface Probe Techniques. , 2013, , 555-580.		2
29	Dynamic nanoscale in situ TEM tribology. Materials Research Society Symposia Proceedings, 2012, 1424, 109.	0.1	0
30	Dynamical Evolution of Wear Particles in Nanocontacts. Tribology Letters, 2012, 45, 229-235.	1.2	11
31	NanoLAB Triboprobe: Characterizing Dynamic Wear, Friction and Fatigue at the Nanoscale. Materials Research Society Symposia Proceedings, 2011, 1297, 65.	0.1	0
32	Friction-formed liquid droplets. Nanotechnology, 2011, 22, 105703.	1.3	17
33	Effect of porosity on the indentation behaviour of nanoporous alumina films. International Journal of Surface Science and Engineering, 2011, 5, 51.	0.4	5
34	Micro/Nano Mechanics of Contact of Solids. , 2011, , 151-170.		1
35	Cyclic deformation and nano-contact adhesion of MEMS nano-bridges by in-situ TEM nanomechanical testing. Journal of Physics: Conference Series, 2010, 241, 012056.	0.3	4
36	Adhesion-Induced Instability in Asperities. Tribology Letters, 2010, 39, 201-209.	1.2	9

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37	Influence of tilt angle of plate on friction and transfer layer – A study of aluminium pin sliding against steel plate. Tribology International, 2010, 43, 897-905.	3.0	14
38	In situ transmission electron microscope study of single asperity sliding contacts. Tribology International, 2010, 43, 1099-1103.	3.0	16
39	Advanced transmission electron microscope triboprobe with automated closed-loop nanopositioning. Measurement Science and Technology, 2010, 21, 075901.	1.4	10
40	Time dependence of effective slip on textured hydrophobic surfaces. Physics of Fluids, 2009, 21, .	1.6	74
41	The formation of carbon nanostructures by in situ TEM mechanical nanoscale fatigue and fracture of carbon thin films. Nanotechnology, 2009, 20, 305703.	1.3	13
42	Underwater Sustainability of the – Cassie – State of Wetting. Langmuir, 2009, 25, 12120-12126.	1.6	175
43	Effect of friction on the performance of inertial slider. Sadhana - Academy Proceedings in Engineering Sciences, 2008, 33, 221-226.	0.8	8
44	A miniaturized TEM nanoindenter for studying material deformation in situ. Measurement Science and Technology, 2006, 17, 1324-1329.	1.4	50
45	Indentation mechanics of Cu – Be quantified by an in situ transmission electron microscopy mechanical probe. Journal of Materials Research, 2005, 20, 2726-2732.	1.2	34
46	The Importance of Distributed Loading and Cantilever Angle in Piezo-Force Microscopy. Journal of Electroceramics, 2004, 13, 287-291.	0.8	51
47	Roughness Generated in Surface Grinding of Metals. Journal of Tribology, 1999, 121, 746-752.	1.0	6
48	Deconvolution of hardness from data obtained from nanoindentation of rough surfaces. Journal of Materials Research, 1999, 14, 2259-2268.	1.2	86
49	Power spectra of roughness caused by grinding of metals. Journal of Materials Research, 1999, 14, 319-322.	1.2	8
50	Roughness due to workpiece wear generated in surface grinding of metals. Tribology International, 1998, 31, 771-778.	3.0	4
51	Hardness estimated from the indentation of a spherical body. Some implications for nanoindentation test results. Tribology Letters, 1996, 2, 381-391.	1.2	7
52	Determination and study of the strength of the blister field generated by conical indentation. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1996, 73, 399-413.	0.8	10
53	PROBING ATOMIC LEVEL INTERACTIONS IN NI NANORODS AND AFM CANTILEVER USING ATOMIC FORCE MICROSCOPY BASED <sup>2</sup> D SPECTROSCOPY. , 0, , .		0
54	Study of Contact Line Parameters of Evaporating Sessile Drops from Various Substrates. Silicon, 0, , 1.	1.8	0