Vasileios Koutsos

List of Publications by Year in descending order

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Version: 2024-02-01

110 papers	3,456 citations	94433 37 h-index	168389 53 g-index
114 all docs	114 docs citations	114 times ranked	4317 citing authors

#	Article	IF	Citations
1	Interactions between Polymers and Carbon Nanotubes:Â A Molecular Dynamics Study. Journal of Physical Chemistry B, 2005, 109, 10009-10014.	2.6	333
2	Elastic properties of suspended multilayer WSe2. Applied Physics Letters, 2016, 108, .	3.3	121
3	Controlled Layer Thinning and pâ€Type Doping of WSe₂ by Vapor XeF₂. Advanced Functional Materials, 2017, 27, 1702455.	14.9	103
4	Structure of Chemically End-Grafted Polymer Chains Studied by Scanning Force Microscopy in Bad-Solvent Conditions. Macromolecules, 1997, 30, 4719-4726.	4.8	99
5	Self-Affine Surface Morphology of Plastically Deformed Metals. Physical Review Letters, 2004, 93, 195507.	7.8	99
6	Carbon nanotube/epoxy resin composites using a block copolymer as a dispersing agent. Physica Status Solidi A, 2004, 201, R89-R91.	1.7	88
7	Direct View of Structural Regimes of End-Grafted Polymer Monolayers:â€‰ A Scanning Force Microscopy Study. Macromolecules, 1999, 32, 1233-1236.	4.8	72
8	High-throughput production of silk fibroin-based electrospun fibers as biomaterial for skin tissue engineering applications. Materials Science and Engineering C, 2020, 112, 110939.	7.3	65
9	Interface magnetism studied by optical second harmonic generation. Journal of Magnetism and Magnetic Materials, 1993, 121, 109-111.	2.3	62
10	The effect of evaporation kinetics on nanoparticle structuring within contact line deposits of volatile drops. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 441, 855-866.	4.7	61
11	Microstructure of Î²-Sitosterol:Î³-Oryzanol Edible Organogels. Langmuir, 2017, 33, 4537-4542.	3.5	61
12	Novel thermoplastic fibre-metal laminates manufactured by vacuum resin infusion: The effect of surface treatments on interfacial bonding. Materials and Design, 2019, 162, 331-344.	7.0	61
13	Morphology of ice wear from rubberâ€“ice friction tests and its dependence on temperature and sliding velocity. Wear, 2008, 265, 634-644.	3.1	60
14	Minimal oxidation and inflammogenicity of pristine graphene with residence in the lung. Nanotoxicology, 2014, 8, 824-832.	3.0	59
15	In Vitro Drug Release, Permeability, and Structural Test of Ciprofloxacin-Loaded Nanofibers. Pharmaceutics, 2021, 13, 556.	4.5	55
16	Nanomechanics of Biocompatible Hollow Thin-Shell Polymer Microspheres. Langmuir, 2009, 25, 7514-7522.	3.5	53
17	Nanostructured Materials and Their Applications. Nanoscience and Technology, 2012, , .	1.5	51
18	4D Printing: Materials, Technologies, and Future Applications in the Biomedical Field. Sustainability, 2020, 12, 10628.	3.2	50

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19	Fabrication of a Wearable Flexible Sweat pH Sensor Based on SERS-Active Au/TPU Electrospun Nanofibers. ACS Applied Materials & Interfaces, 2021, 13, 51504-51518.	8.0	50
20	Bacteria as living patchy colloids: Phenotypic heterogeneity in surface adhesion. Science Advances, 2018, 4, eaao1170.	10.3	48
21	Microwave induced hierarchical nanostructures on aramid fibers and their influence on adhesion properties in a rubber matrix. Applied Surface Science, 2017, 410, 145-153.	6.1	47
22	An Atomic Force Microscopy Study on the Transition from Mushrooms to Octopus Surface â€œMicellesâ€• by Changing the Solvent Quality. Langmuir, 1996, 12, 3221-3224.	3.5	46
23	Nanoparticle deposits near the contact line of pinned volatile droplets: size and shape revealed by atomic force microscopy. Soft Matter, 2011, 7, 4152.	2.7	46
24	An experimental study on dynamic pore wettability. Chemical Engineering Science, 2013, 104, 988-997.	3.8	46
25	Investigation of rubber friction on snow for tyres. Tribology International, 2013, 59, 292-301.	5.9	46
26	On the optimization of low-cost FDM 3D printers for accurate replication of patient-specific abdominal aortic aneurysm geometry. 3D Printing in Medicine, 2018, 4, 2.	3.1	46
27	Chemical, microstructural and mechanical properties of ceramic waste blended cementitious systems. Journal of Cleaner Production, 2019, 211, 1228-1238.	9.3	44
28	Nanomechanical Properties of Phospholipid Microbubbles. Langmuir, 2012, 28, 5753-5760.	3.5	43
29	Nanomechanical probing of microbubbles using the atomic force microscope. Ultrasonics, 2007, 46, 349-354.	3.9	42
30	Influence of Local Heating on Marangoni Flows and Evaporation Kinetics of Pure Water Drops. Langmuir, 2017, 33, 5666-5674.	3.5	42
31	Optical second harmonic generation study of interface magnetism. Surface Science, 1993, 287-288, 747-749.	1.9	41
32	Adsorption and self-assembly of linear polymers on surfaces: a computer simulation study. Soft Matter, 2009, 5, 637-645.	2.7	40
33	Adsorption of star polymers: computer simulations. Soft Matter, 2010, 6, 1483.	2.7	40
34	Friction of rubber on ice: A new machine, influence of rubber properties and sliding parameters. Tribology International, 2012, 49, 44-52.	5.9	40
35	Effect of particle geometry on triple line motion of nano-fluid drops and deposit nano-structuring. Advances in Colloid and Interface Science, 2015, 222, 44-57.	14.7	40
36	Conformation of a Single Polyacrylamide Molecule Adsorbed onto a Mica Surface Studied with Atomic Force Microscopy. Macromolecules, 2004, 37, 3799-3803.	4.8	39

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37	Methods of modifying through-thickness electrical conductivity of CFRP for use in structural health monitoring, and its effect on mechanical properties â€“ A review. Composites Part A: Applied Science and Manufacturing, 2020, 133, 105885.	7.6	39
38	Nanointerrogation of ultrasonic contrast agent microbubbles using atomic force microscopy. Ultrasound in Medicine and Biology, 2006, 32, 579-585.	1.5	38
39	Recent advancements in the bioprinting of vascular grafts. Biofabrication, 2021, 13, 032003.	7.1	38
40	Novel carbon-fibre powder-epoxy composites: Interface phenomena and interlaminar fracture behaviour. Composites Part B: Engineering, 2019, 174, 107012.	12.0	37
41	Isolated Polymer Chains via Mixed Self-Assembled Monolayers:Â Morphology and Friction Studied by Scanning Force Microscopy. Macromolecules, 1998, 31, 116-123.	4.8	33
42	Molecular Interactions behind the Self-Assembly and Microstructure of Mixed Sterol Organogels. Langmuir, 2018, 34, 8629-8638.	3.5	32
43	Polymer-like to Soft Colloid-like Behavior of Regular Star Polymers Adsorbed on Surfaces. Macromolecules, 2007, 40, 6947-6958.	4.8	31
44	Atomic Force Microscopy and Real Atomic Resolution. Simple Computer Simulations. Europhysics Letters, 1994, 26, 103-107.	2.0	27
45	Electrical and mechanical properties of carbon nanotube-polyimide composites. Journal of Vacuum Science & Technology B, 2009, 27, 3139.	1.3	27
46	Structural transitions in a ring stain created at the contact line of evaporating nanosuspension sessile drops. Physical Review E, 2013, 87, 012301.	2.1	27
47	Leading edge erosion of wind turbines: Effect of solid airborne particles and rain on operational wind farms. Wind Energy, 2020, 23, 1955-1965.	4.2	27
48	PDMS-ZnO Piezoelectric Nanocomposites for Pressure Sensors. Sensors, 2021, 21, 5873.	3.8	27
49	Friction on ice: stick and slip. Faraday Discussions, 2012, 156, 243.	3.2	26
50	Highâ€Density Polymer Microarrays: Identifying Synthetic Polymers that Control Human Embryonic Stem Cell Growth. Advanced Healthcare Materials, 2014, 3, 848-853.	7.6	26
51	Adhesion and Deformation of a Single Latex Particle. Langmuir, 2000, 16, 6374-6376.	3.5	25
52	Size effect in the tensile fracture of single-walled carbon nanotubes with defects. Nanotechnology, 2007, 18, 155708.	2.6	25
53	Imaging of single polymer chains based on their elasticity. Applied Physics Letters, 1994, 65, 1915-1917.	3.3	24
54	Mechanical properties and microstructure of single-wall carbon nanotube/elastomeric epoxy composites with block copolymers. Materials Letters, 2014, 125, 116-119.	2.6	24

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55	Influence of organic fouling layer characteristics and osmotic backwashing conditions on cleaning efficiency of RO membranes. Journal of Membrane Science, 2020, 616, 118604.	8.2	24
56	Sponge-like piezoelectric micro- and nanofiber structures for mechanical energy harvesting. Nano Energy, 2022, 98, 107286.	16.0	24
57	Polymeric thin shells: Measurement of elastic properties at the nanometer scale using atomic force microscopy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 165, 231-234.	3.5	22
58	A modified 3D printer as a hybrid bioprinting-electrospinning system for use in vascular tissue engineering applications. Medical Engineering and Physics, 2021, 94, 52-60.	1.7	22
59	Amphiphilic Diblock Copolymers on Mica: Formation of Flat Polymer Nanoislands and Evolution to Protruding Surface Micelles. Macromolecules, 2008, 41, 4313-4320.	4.8	21
60	On the Effect of Substrate Viscoelasticity on the Evaporation Kinetics and Deposition Patterns of Nanosuspension Drops. Langmuir, 2020, 36, 204-213.	3.5	21
61	The stickâ€“slip transition in highly entangled poly(styrene-butadiene) melts. Advances in Colloid and Interface Science, 2001, 94, 39-52.	14.7	20
62	Elastic Modulus of a Polymer Nanodroplet: Theory and Experiment. Langmuir, 2012, 28, 4754-4767.	3.5	20
63	Thin Films of Poly(isoprene-b-ethylene Oxide) Diblock Copolymers on Mica: An Atomic Force Microscopy Study. Langmuir, 2013, 29, 2339-2349.	3.5	20
64	â€œBiodropâ€•Evaporation and Ring-Stain Deposits: The Significance of DNA Length. Langmuir, 2016, 32, 4361-4369.	3.5	20
65	On the motion of a sessile drop on an incline: Effect of non-monotonic thermocapillary stresses. Applied Physics Letters, 2016, 109, .	3.3	19
66	Experimental identification of dynamic tire friction potential on ice surfaces. Vehicle System Dynamics, 2006, 44, 93-103.	3.7	17
67	Improving throughâ€thickness conductivity of carbon fiber reinforced polymer using carbon nanotube/polyethylenimine at the interlaminar region. Journal of Applied Polymer Science, 2021, 138, 49749.	2.6	15
68	Design and development of a nozzle-free electrospinning device for the high-throughput production of biomaterial nanofibers. Medical Engineering and Physics, 2021, 92, 80-87.	1.7	15
69	Deposition of Magnetic Colloidal Particles on Graphite and Mica Surfaces Driven by Solvent Evaporation. Langmuir, 2006, 22, 5611-5616.	3.5	14
70	Carbon nanotubes for integration into nanocomposite materials. Microelectronic Engineering, 2006, 83, 1542-1546.	2.4	14
71	Probing microbubble targeting with atomic force microscopy. Colloids and Surfaces B: Biointerfaces, 2010, 80, 12-17.	5.0	14
72	Effect of Poly(ethylene oxide) Molecular Weight on the Pinning and Pillar Formation of Evaporating Sessile Droplets: The Role of the Interface. Langmuir, 2015, 31, 5908-5918.	3.5	14

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73	Statistical heterogeneity of plastic deformation: An investigation based on surface profilometry. Acta Materialia, 2010, 58, 4859-4870.	7.9	13
74	Direct measurement of saltâ€“mineral repulsion using atomic force microscopy. Chemical Communications, 2010, 46, 5235.	4.1	13
75	Nonisothermal Spreading Dynamics of Self-Rewetting Droplets. Langmuir, 2018, 34, 1916-1931.	3.5	13
76	Controlled hydrothermal growth of vertically-aligned zinc oxide nanowires using silicon and polyimide substrates. Microelectronic Engineering, 2015, 145, 86-90.	2.4	12
77	Bubble rise in a non-isothermal self-rewetting fluid and the role of thermocapillarity. International Journal of Thermal Sciences, 2017, 117, 146-162.	4.9	12
78	Scale-free statistics of plasticity-induced surface steps on KCl single crystals. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, L04001-L04001.	2.3	11
79	Imaging thin and ultrathin organic films by scanning white light interferometry. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 152, 125-131.	3.5	11
80	Statistical analysis and stochastic dislocation-based modeling of microplasticity. Journal of the Mechanical Behavior of Materials, 2015, 24, 105-113.	1.8	11
81	The formation of dewetting structures after evaporation of n-dodecane on graphite studied by atomic force microscopy. Surface Science, 2004, 548, 41-50.	1.9	10
82	Poly(styrene-co-butadiene) random copolymer thin films and nanostructures on a mica surface: morphology and contact angles of nanodroplets. Soft Matter, 2017, 13, 6152-6166.	2.7	10
83	Probing phospholipid microbubbles by atomic force microscopy to quantify bubble mechanics and nanostructural shell properties. Colloids and Surfaces B: Biointerfaces, 2019, 181, 506-515.	5.0	10
84	Polyolefins and Polyethylene Terephthalate Package Wastes: Recycling and Use in Composites. Energies, 2021, 14, 7306.	3.1	10
85	Stress-induced optical anisotropy in polycrystalline copper studied by reflection anisotropy spectroscopy. Journal Physics D: Applied Physics, 2003, 36, L115-L118.	2.8	9
86	Ionic liquid mediated surface micropatterning of polymer blends. Journal of Applied Polymer Science, 2018, 135, 46109.	2.6	9
87	Preparation and evaluation of amine terminated polyether shale inhibitor for water-based drilling fluid. SN Applied Sciences, 2019, 1, 1.	2.9	9
88	Tailoring the properties of grafted silver nanoprism composites. Polymer, 2012, 53, 5771-5778.	3.8	8
89	Wetting Behavior of Polymer Droplets: Effects of Droplet Size and Chain Length. Macromolecules, 2018, 51, 2805-2816.	4.8	8
90	Investigation of the low-temperature mechanical behavior of elastomers and their carbon nanotube composites using microindentation. Low Temperature Physics, 2019, 45, 568-576.	0.6	8

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91	One Surface Treatment, Multiple Possibilities: Broadening the Use-Potential of Para-Aramid Fibers with Mechanical Adhesion. Polymers, 2021, 13, 3114.	4.5	8
92	Computer simulations of surface deposition of amphiphilic diblock copolymers driven by solvent evaporation. Soft Matter, 2013, 9, 3758.	2.7	7
93	Low-cost FDM 3D-printed modular electrospray/electrospinning setup for biomedical applications. 3D Printing in Medicine, 2020, 6, 8.	3.1	7
94	RAS as a remote sensor of plastic deformation in metals. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3997-4002.	0.8	5
95	Stress Relaxation of Polyimide (PI) Cantilevers using Low Energy Ion Bombardment. Soft Materials, 2013, 11, 414-420.	1.7	5
96	Morphology of Poly(styrene-co-butadiene) Random Copolymer Thin Films and Nanostructures on a Graphite Surface. Langmuir, 2018, 34, 7784-7796.	3.5	5
97	Thin Polymer Film Force Spectroscopy: Single Chain Pull-out and Desorption. ACS Macro Letters, 2020, 9, 152-157.	4.8	5
98	Interlayer bonding between thermoplastic composites and metals by <scp>inâ€situ</scp> polymerization technique. Journal of Applied Polymer Science, 2021, 138, 51188.	2.6	5
99	Pulling Single Chains out of a Collapsed Polymer Monolayer in Bad-Solvent Conditions. Materials Research Society Symposia Proceedings, 2002, 734, 161.	0.1	4
100	P1F-6 Development of a Novel Experimental Set-Up to Allow Investigation of the Ultrasonic Backscatter from Microbubble Contrast Agents Attached to Surfaces. , 2006, , .		2
101	Atomic Force Microscopy and Polymers on Surfaces. , 2009, , 225-244.		2
102	Static Response of Coated Microbubbles: Modeling Simulations and Parameter Estimation. Procedia IUTAM, 2015, 16, 123-133.	1.2	2
103	Measuring the interactions between carbon black nanoparticles and latex thin films in aqueous media using AFM force spectroscopy. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 603, 124920.	4.7	2
104	Nano-interrogation of a lipid shelled microbubble. , 2008, , .		1
105	Microbubble nano-interrogation using the atomic force microscope. , 0, , .		0
106	P5B-9 Investigation of the Response of Attached biSphere™ Microbubbles to Ultrasound. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	0
107	11A-5 Interrogation of the Targeting Mechanisms of Ultrasound Contrast Agent Microbubbles Using Atomic Force Microscopy. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	0
108	Study on the Morphology Properties of Carbon Nanotube/Polyaniline Composites Thin Film. Advanced Materials Research, 0, 569, 15-18.	0.3	0

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109	Self-Assembly of Colloidal Nanoparticles on Surfaces: Towards Surface Nanopatterning. Nanoscience and Technology, 2012, , 191-211.	1.5	0
110	Dispersive and filter loss performance of calcium carbonate nanoparticles in water for drilling fluid applications. Nanotechnology, 2021, 32, 485704.	2.6	0