

Amir Farokh Payam

List of Publications by Year in descending order

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48
papers

934
citations

623188

14
h-index

476904

29
g-index

48
all docs

48
docs citations

48
times ranked

1373
citing authors

#	ARTICLE	IF	CITATIONS
1	Opportunities and Challenges for Biosensors and Nanoscale Analytical Tools for Pandemics: COVID-19. ACS Nano, 2020, 14, 7783-7807.	7.3	284
2	A comparative study on material selection of microelectromechanical systems electrostatic actuators using Ashby, VIKOR and TOPSIS. Materials & Design, 2015, 65, 328-334.	5.1	105
3	Mapping Elastic Properties of Heterogeneous Materials in Liquid with Angstrom-Scale Resolution. ACS Nano, 2017, 11, 8650-8659.	7.3	67
4	Force reconstruction from tapping mode force microscopy experiments. Nanotechnology, 2015, 26, 185706.	1.3	56
5	Molecular and Nanoscale Compositional Contrast of Soft Matter in Liquid: Interplay between Elastic and Dissipative Interactions. ACS Nano, 2012, 6, 4663-4670.	7.3	51
6	A capillary force model for interactions between two spheres. Particuology, 2011, 9, 381-386.	2.0	34
7	Nanoplasmonic biosensor for rapid detection of multiple viral variants in human serum. Sensors and Actuators B: Chemical, 2022, 365, 131906.	4.0	32
8	Sensitivity of flexural vibration mode of the rectangular atomic force microscope micro cantilevers in liquid to the surface stiffness variations. Ultramicroscopy, 2013, 135, 84-88.	0.8	28
9	Simultaneous viscosity and density measurement of small volumes of liquids using a vibrating microcantilever. Analyst, The, 2017, 142, 1492-1498.	1.7	24
10	Effect of tip mass on frequency response and sensitivity of AFM cantilever in liquid. Micron, 2015, 70, 50-54.	1.1	22
11	Sub-nanometer Resolution Imaging with Amplitude-modulation Atomic Force Microscopy in Liquid. Journal of Visualized Experiments, 2016, , .	0.2	21
12	Optimization of phase contrast in bimodal amplitude modulation AFM. Beilstein Journal of Nanotechnology, 2015, 6, 1072-1081.	1.5	20
13	Design of a smart MEMS accelerometer using nonlinear control principles. Smart Structures and Systems, 2010, 6, 1-16.	1.9	19
14	Robust DTC Control of Doubly-Fed Induction Machines Based on Input-Output Feedback Linearization Using Recurrent Neural Networks. Journal of Power Electronics, 2011, 11, 719-725.	0.9	18
15	Multiparametric analytical quantification of materials at nanoscale in tapping force microscopy. Applied Surface Science, 2021, 536, 147698.	3.1	13
16	Study of the tip mass and interaction force effects on the frequency response and mode shapes of the AFM cantilever. International Journal of Advanced Manufacturing Technology, 2013, 65, 957-966.	1.5	12
17	Robust Speed Sensorless Control of Doubly-Fed Induction Machine Based on Input-Output Feedback Linearization Control Using a Sliding-Mode Observer. , 2006, , .		10
18	Determining the spring constant of arbitrarily shaped cantilevers in viscous environments. Applied Physics Letters, 2018, 112, .	1.5	10

#	ARTICLE	IF	CITATIONS
19	Nanoscale Mapping of the Directional Flow Patterns at Liquid-Solid Interfaces. <i>Physical Review Applied</i> , 2020, 13, .	1.5	10
20	Nonlinear Sliding-Mode Controller for Sensorless Speed control of DC servo Motor Using Adaptive Backstepping Observer. , 2006, , .		9
21	An Energy Method for Determination of Flicker Source at the Point of Common Coupling. , 2007, , .		9
22	Dynamic modeling and sensitivity analysis of dAFM in the transient and steady state motions. <i>Ultramicroscopy</i> , 2016, 169, 55-61.	0.8	8
23	Development of fatigue testing system for in-situ observation of stainless steel 316 by HS-AFM & SEM. <i>International Journal of Fatigue</i> , 2019, 127, 1-9.	2.8	8
24	A Speed Sensorless Sliding-Mode Controller for Doubly-Fed Induction Machine Drives with Adaptive Backstepping Observer. , 2006, , .		7
25	A non-destructive method to calibrate the torsional spring constant of atomic force microscope cantilevers in viscous environments. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	7
26	Dynamic Modeling and Simulation of an Induction Motor with Adaptive Backstepping Design of an Input-Output Feedback Linearization Controller in Series Hybrid Electric Vehicle. , 2006, , .		6
27	Theoretical study on the optimal thermal excitation of bimaterial cantilevers. <i>Applied Physics Express</i> , 2020, 13, 064002.	1.1	6
28	Data acquisition and imaging using wavelet transform: a new path for high speed transient force microscopy. <i>Nanoscale Advances</i> , 2021, 3, 383-398.	2.2	6
29	A Robust Adaptive Sliding-Mode Controller for Slip Power Recovery Induction Machine Drives. , 2006, , .		5
30	Modelling and nanoscale force spectroscopy of frequency modulation atomic force microscopy. <i>Applied Mathematical Modelling</i> , 2020, 79, 544-554.	2.2	4
31	Application of Atomic Force Microscopy to Study Metal-Organic Frameworks Materials and Composites. <i>Materials Horizons</i> , 2018, , 37-73.	0.3	3
32	Dynamic analysis of flexural vibration mode of an atomic force microscope cantilever with a sidewall probe in liquid. <i>Microscopy Research and Technique</i> , 2021, 84, 782-788.	1.2	3
33	Clinical evaluation of SARS-CoV-2 lung HRCT and RT-PCR Techniques: Towards risk factor based diagnosis of infectious diseases. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 2699-2707.	1.9	3
34	Frequency equation and semi-empirical mechanical coupling strength of microcantilevers in an array. <i>Microscopy Research and Technique</i> , 2022, 85, 3237-3244.	1.2	3
35	Design of a hybrid closed loop control system for a MEMS accelerometer using backstepping principle. , 2007, , .		2
36	Adaptive input-output feedback linearization controller for doubly-fed induction machine drive. , 2007, , .		2

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37	Effect of Tip Mass on Modal Flexural Sensitivity of Rectangular AFM Cantilevers to Surface Stiffness Variations. <i>Arabian Journal for Science and Engineering</i> , 2014, 39, 1393-1397.	1.1	2
38	Backstepping Control Approach for Closed Loop Feedback Control of Atomic Force Microscope. , 2007, , .		1
39	An adaptive nonlinear estimator for the MEMS capacitive accelerometer based on adaptive input-output feedback linearization. , 2007, , .		1
40	Design of a feedforward controller for AFM nanopositioning based on neural network control theory. , 2009, , .		1
41	Development of a flexure-based nano-actuator for high-frequency high-resolution directional sensing with atomic force microscopy. <i>Review of Scientific Instruments</i> , 2021, 92, 093703.	0.6	1
42	Design of Hybrid Closed Loop Control Systems for a MEMS Accelerometer Using Nonlinear Control Principles. <i>International Review of Aerospace Engineering</i> , 2014, 7, 164.	0.2	1
43	An Adaptive Backstepping Controller for Doubly-F d Induction Machine Drives. , 2006, , .		0
44	An Input-Output Feedback Linearization Controller for Doubly-Fed Induction Machine Drives. , 2007, , .		0
45	An estimator for the MEMS capacitive accelerometer based on adaptive back stepping theory. , 2008, , .		0
46	A backstepping controller for piezoelectric actuators with hysteresis in nanopositioning. , 2009, , .		0
47	Development of Fatigue Testing System for in-situ Observation by AFM & SEM. <i>MATEC Web of Conferences</i> , 2019, 300, 14002.	0.1	0
48	A Hybrid PD-Fuzzy Controller for Atomic Force Microscopes. , 2008, , .		0