

Panos Datskos

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8632120/publications.pdf>

Version: 2024-02-01

131
papers

6,283
citations

94415

37
h-index

69246

77
g-index

135
all docs

135
docs citations

135
times ranked

6354
citing authors

#	ARTICLE	IF	CITATIONS
1	Cantilever transducers as a platform for chemical and biological sensors. Review of Scientific Instruments, 2004, 75, 2229-2253.	1.3	1,047
2	Role of Hydrogen in Chemical Vapor Deposition Growth of Large Single-Crystal Graphene. ACS Nano, 2011, 5, 6069-6076.	14.6	792
3	Femtogram mass detection using photothermally actuated nanomechanical resonators. Applied Physics Letters, 2003, 82, 2697-2699.	3.3	294
4	Large scale atmospheric pressure chemical vapor deposition of graphene. Carbon, 2013, 54, 58-67.	10.3	241
5	Synthesis of Hexagonal Boron Nitride Monolayer: Control of Nucleation and Crystal Morphology. Chemistry of Materials, 2015, 27, 8041-8047.	6.7	202
6	Graphene Nucleation Density on Copper: Fundamental Role of Background Pressure. Journal of Physical Chemistry C, 2013, 117, 18919-18926.	3.1	179
7	Bimaterial Microcantilevers as a Hybrid Sensing Platform. Advanced Materials, 2008, 20, 653-680.	21.0	172
8	Peer Reviewed: Microcantilever Transducers: A new Approach in Sensor Technology. Analytical Chemistry, 2002, 74, 568 A-575 A.	6.5	169
9	Performance of uncooled microcantilever thermal detectors. Review of Scientific Instruments, 2004, 75, 1134-1148.	1.3	157
10	Electrical and thermal conductivity of low temperature CVD graphene: the effect of disorder. Nanotechnology, 2011, 22, 275716.	2.6	132
11	Air-stable droplet interface bilayers on oil-infused surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7588-7593.	7.1	125
12	Remote optical detection using microcantilevers. Review of Scientific Instruments, 1996, 67, 3434-3439.	1.3	96
13	Remote infrared radiation detection using piezoresistive microcantilevers. Applied Physics Letters, 1996, 69, 2986-2988.	3.3	95
14	Selectivity of chemical sensors based on micro-cantilevers coated with thin polymer films. Analytica Chimica Acta, 2000, 422, 89-99.	5.4	95
15	Gold Nano-Structures for Transduction of Biomolecular Interactions into Micrometer Scale Movements. Biomedical Microdevices, 2001, 3, 35-44.	2.8	95
16	Uncooled thermal imaging using a piezoresistive microcantilever. Applied Physics Letters, 1996, 69, 3277-3279.	3.3	89
17	Enantioselective Sensors Based on Antibody-Mediated Nanomechanics. Analytical Chemistry, 2003, 75, 2342-2348.	6.5	89
18	Photoinduced and thermal stress in silicon microcantilevers. Applied Physics Letters, 1998, 73, 2319-2321.	3.3	76

#	ARTICLE	IF	CITATIONS
19	Detection of 2-mercaptoethanol using gold-coated micromachined cantilevers. <i>Sensors and Actuators B: Chemical</i> , 1999, 61, 75-82.	7.8	76
20	Enhanced chemi-mechanical transduction at nanostructured interfaces. <i>Chemical Physics Letters</i> , 2001, 336, 371-376.	2.6	70
21	Uncooled infrared imaging using bimaterial microcantilever arrays. <i>Applied Physics Letters</i> , 2006, 89, 073118.	3.3	69
22	Nanostructured Microcantilevers with Functionalized Cyclodextrin Receptor Phases: Self-Assembled Monolayers and Vapor-Deposited Films. <i>Analytical Chemistry</i> , 2002, 74, 3118-3126.	6.5	64
23	IR imaging using uncooled microcantilever detectors. <i>Ultramicroscopy</i> , 2003, 97, 451-458.	1.9	64
24	Strong and Electrically Conductive Graphene-Based Composite Fibers and Laminates. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 10702-10709.	8.0	63
25	Chemical detection based on adsorption-induced and photoinduced stresses in microelectromechanical systems devices. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 1173.	1.6	59
26	Self-leveling uncooled microcantilever thermal detector. <i>Applied Physics Letters</i> , 2002, 81, 1306-1308.	3.3	57
27	Optically transparent and environmentally durable superhydrophobic coating based on functionalized SiO ₂ nanoparticles. <i>Nanotechnology</i> , 2015, 26, 055602.	2.6	56
28	Analyte species and concentration identification using differentially functionalized microcantilever arrays and artificial neural networks. <i>Analytica Chimica Acta</i> , 2006, 558, 94-101.	5.4	52
29	Photomechanical chemical microsensors. <i>Sensors and Actuators B: Chemical</i> , 2001, 76, 393-402.	7.8	51
30	Enhancing chemi-mechanical transduction in microcantilever chemical sensing by surface modification. <i>Ultramicroscopy</i> , 2003, 97, 417-424.	1.9	49
31	Detection and differentiation of biological species using microcalorimetric spectroscopy. <i>Ultramicroscopy</i> , 2003, 97, 459-465.	1.9	46
32	Scalable superhydrophobic coatings based on fluorinated diatomaceous earth: Abrasion resistance versus particle geometry. <i>Applied Surface Science</i> , 2014, 292, 563-569.	6.1	46
33	Modification of micro-cantilever sensors with sol-gels to enhance performance and immobilize chemically selective phases. <i>Talanta</i> , 2000, 53, 599-608.	5.5	44
34	Temperature dependence of electron attachment and detachment in SF ₆ and C ₄ F ₆ . <i>Journal of Chemical Physics</i> , 1993, 99, 8607-8616.	3.0	42
35	Detection of Explosive Compounds with the Use of Microcantilevers with Nanoporous Coatings. <i>Sensor Letters</i> , 2003, 1, 25-32.	0.4	42
36	Superhydrophobic Analyte Concentration Utilizing Colloid-Pillar Array SERS Substrates. <i>Analytical Chemistry</i> , 2014, 86, 11819-11825.	6.5	39

#	ARTICLE	IF	CITATIONS
37	Effect of temperature on the attachment of slow (≈ 1 eV) electrons to CH ₃ Br. Journal of Chemical Physics, 1992, 97, 9031-9035.	3.0	37
38	Photophysical and electron attachment properties of ArF-excimer-laser irradiated H ₂ . Physical Review A, 1997, 55, 4131-4142.	2.5	37
39	Electron attachment to excited states of silane: Implications for plasma processing discharges. Journal of Applied Physics, 1997, 81, 7715-7727.	2.5	37
40	Sorption-induced static bending of microcantilevers coated with viscoelastic material. Journal of Applied Physics, 2008, 103, .	2.5	37
41	Arrays of SiO ₂ substrate-free micromechanical uncooled infrared and terahertz detectors. Journal of Applied Physics, 2008, 104, 054508.	2.5	37
42	Characterization of Ligand-Functionalized Microcantilevers for Metal Ion Sensing. Analytical Chemistry, 2005, 77, 6601-6608.	6.5	35
43	Differentially Ligand-Functionalized Microcantilever Arrays for Metal Ion Identification and Sensing. Analytical Chemistry, 2007, 79, 7062-7068.	6.5	35
44	Synthesis of Segmented Silica Rods by Regulation of the Growth Temperature. Angewandte Chemie - International Edition, 2014, 53, 451-454.	13.8	34
45	Photodetachment of SF ₆ ⁻ . Chemical Physics Letters, 1995, 239, 38-43.	2.6	32
46	Step-by-Step Growth of Complex Oxide Microstructures. Angewandte Chemie - International Edition, 2015, 54, 9011-9015.	13.8	32
47	Temperature-enhanced electron attachment to CH ₃ Cl. Chemical Physics Letters, 1990, 168, 324-329.	2.6	31
48	Detection of anthrax simulants with microcalorimetric spectroscopy: Bacillus subtilis and Bacillus cereus spores. Applied Optics, 2003, 42, 1757.	2.1	31
49	Independent component analysis of nanomechanical responses of cantilever arrays. Analytica Chimica Acta, 2007, 584, 101-105.	5.4	31
50	Detection of infrared photons using the electronic stress in metal-semiconductor cantilever interfaces. Ultramicroscopy, 2000, 82, 49-56.	1.9	29
51	Development of MEMS based piezoelectric thermal energy harvesters. Proceedings of SPIE, 2011, , .	0.8	29
52	Temperature-enhanced electron detachment from C ₆ F ₆ ⁻ negative ions. Journal of Chemical Physics, 1993, 98, 7875-7882.	3.0	28
53	Ionization coefficients in selected gas mixtures of interest to particle detectors. Journal of Applied Physics, 1992, 71, 15-21.	2.5	27
54	Variation of the electron attachment to n-C ₄ F ₁₀ with temperature. Journal of Chemical Physics, 1987, 86, 1982-1990.	3.0	26

#	ARTICLE	IF	CITATIONS
55	Review of pyroelectric thermal energy harvesting and new MEMs-based resonant energy conversion techniques. Proceedings of SPIE, 2012, , .	0.8	26
56	Photodetachment in the gaseous, liquid, and solid states of matter. Journal of Chemical Physics, 1994, 101, 6728-6742.	3.0	25
57	Feasibility of tunable MEMS photonic crystal devices. Ultramicroscopy, 2003, 97, 473-479.	1.9	23
58	Facile Hyphenation of Gas Chromatography and a Microcantilever Array Sensor for Enhanced Selectivity. Analytical Chemistry, 2007, 79, 364-370.	6.5	23
59	Non-contact current measurement with cobalt-coated microcantilevers. Sensors and Actuators A: Physical, 2004, 112, 32-35.	4.1	21
60	Fabrication of quantum well microcantilever photon detectors. Ultramicroscopy, 2001, 86, 191-206.	1.9	20
61	Optical and infrared detection using microcantilevers. , 1996, , .		19
62	Variation with temperature of the electron attachment to SO ₂ F ₂ . Journal of Chemical Physics, 1989, 90, 2626-2630.	3.0	18
63	Addressable morphology control of silica structures by manipulating the reagent addition time. RSC Advances, 2014, 4, 2291-2294.	3.6	18
64	Response Signatures for Nanostructured, Optically-Probed, Functionalized Microcantilever Sensing Arrays. Sensor Letters, 2004, 2, 238-245.	0.4	17
65	Development of a nanomechanical biosensor for analysis of endocrine disrupting chemicals. Lab on A Chip, 2007, 7, 1184.	6.0	15
66	Colloidosome like structures: self-assembly of silica microrods. RSC Advances, 2016, 6, 26734-26737.	3.6	15
67	The ionization threshold of N,N,N',N'-tetramethyl- <i>p</i> -phenylenediamine in dense fluid ethane; effects of fluid density and temperature. Journal of Chemical Physics, 1989, 90, 6619-6626.	3.0	14
68	Novel technique for real-time monitoring of electron attachment to laser-excited molecules. Journal of Chemical Physics, 1996, 104, 8382-8392.	3.0	14
69	Uncooled MEMS IR imagers with optical readout and image processing. , 2007, , .		14
70	<i>In situ</i> capping for size control of monochalcogenide (ZnS, CdS and SnS) nanocrystals produced by anaerobic metal-reducing bacteria. Nanotechnology, 2015, 26, 325602.	2.6	13
71	Standoff imaging of chemicals using IR spectroscopy. Proceedings of SPIE, 2011, , .	0.8	12
72	Infrared imaging using arrays of SiO ₂ micromechanical detectors. Optics Letters, 2012, 37, 3966.	3.3	12

#	ARTICLE	IF	CITATIONS
73	Low cost anti-soiling coatings for CSP collector mirrors and heliostats. Proceedings of SPIE, 2014, , .	0.8	11
74	Nanocantilever Signal Transduction by Electron Transfer. Journal of Nanoscience and Nanotechnology, 2002, 2, 369-373.	0.9	10
75	Nanostructured Cantilevers as Nanomechanical Immunosensors for Cytokine Detection. Nanobiotechnology, 2005, 1, 237-244.	1.2	10
76	Synthesis of very small diameter silica nanofibers using sound waves. Chemical Communications, 2014, 50, 7277-7279.	4.1	10
77	Pyroelectric Energy Scavenging Techniques for Self-Powered Nuclear Reactor Wireless Sensor Networks. Nuclear Technology, 2014, 188, 172-184.	1.2	10
78	Effect of vibrational excitation on electron transport in gases. Chemical Physics Letters, 1991, 186, 11-14.	2.6	9
79	Ultrasensitive thermal sensors for the detection of explosives using calorimetric spectroscopy (CalSpec). , 1999, , .		9
80	Micromechanical uncooled photon detectors. , 2000, 3948, 80.		9
81	Novel photon detection based on electronically induced stress in silicon. , 1998, 3379, 173.		8
82	Uncooled infrared imaging using bimaterial microcantilever arrays. , 2006, , .		8
83	Control of Membrane Permeability in Air-Stable Droplet Interface Bilayers. Langmuir, 2015, 31, 4224-4231.	3.5	8
84	Evaluation of Porous Silicon Oxide on Silicon Microcantilevers for Sensitive Detection of Gaseous HF. Analytical Chemistry, 2017, 89, 6272-6276.	6.5	8
85	Optically read Coriolis vibratory gyroscope based on a silicon tuning fork. Microsystems and Nanoengineering, 2019, 5, 47.	7.0	8
86	Characterization of hydrogen responsive nanoporous palladium films synthesized via a spontaneous galvanic displacement reaction. Nanotechnology, 2012, 23, 465403.	2.6	7
87	Enhanced Durability Transparent Superhydrophobic Anti-Soiling Coatings for CSP Applications. , 2014, , .		7
88	Temperature-enhanced autodetachment from c-C ₄ F ₆ *. Chemical Physics Letters, 1992, 195, 329-332.	2.6	6
89	Detection of infrared photons using the electronic stress in metal-semiconductor interfaces. , 1999, , .		6
90	Performance of uncooled microcantilever thermal detectors. , 2005, , .		6

#	ARTICLE	IF	CITATIONS
91	Effect of Temperature on the Dissociative and Nondissociative Electron Attachment to Freons. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1992, 96, 448-450.	0.9	5
92	Electron attachment to photofragments and Rydberg states in laser-irradiated CCl ₂ F ₂ . Journal of Applied Physics, 1998, 84, 3442-3450.	2.5	5
93	<title>Sensing and actuating functionality of hybrid MEMS combining enhanced chemi-mechanical transduction with surface-enhanced Raman spectroscopy</title>. , 2001, , .		5
94	Rapid Detection of Analytes with Improved Selectivity Using Coated Microcantilever Chemical Sensors and Estimation Theory. , 2007, , .		5
95	Infrared microcalorimetric spectroscopy using quantum cascade lasers. Optics Letters, 2013, 38, 507.	3.3	5
96	Synthesis of Half-Sphere/Half-Funnel-Shaped Silica Structures by Reagent Localization and the Role of Water in Shape Control. Chemistry - A European Journal, 2016, 22, 18700-18704.	3.3	5
97	Standoff Imaging of Trace RDX Using Quantum Cascade Lasers. IEEE Sensors Journal, 2020, 20, 149-154.	4.7	5
98	Electron attachment to boron trichloride. Journal of Applied Physics, 1998, 84, 5805-5807.	2.5	4
99	Electron Attachment to Excited Molecules. NATO ASI Series Series B: Physics, 1994, , 415-442.	0.2	4
100	Piezoresistive microcantilever optimization for uncooled infrared detection technology. , 1996, 2817, 179.		3
101	Optical readout of uncooled thermal detectors. , 2000, 4130, 185.		3
102	An atomic force microscope-based investigation of vertical transport through GaAs/GaAlAs/InAlAs/GaAs step-barrier heterostructures. Ultramicroscopy, 2002, 91, 133-138.	1.9	3
103	Microcantilever sensors with chemically selective coatings of ionic liquids. AIChE Journal, 2007, 53, 2726-2731.	3.6	3
104	Progress with MEMS based UGS (IR/THz). Proceedings of SPIE, 2008, , .	0.8	3
105	A Finite Element Model of Self-Resonating Bimorph Microcantilever for Fast Temperature Cycling in A Pyroelectric Energy Harvester.. Materials Research Society Symposia Proceedings, 2011, 1325, 159.	0.1	3
106	Electron attachment to thermally excited trichlorotrifluoroethane (1, 1, 2-). Journal Physics D: Applied Physics, 1997, 30, 2596-2602.	2.8	2
107	<title>Infrared microcalorimetric spectroscopy using uncooled thermal detectors</title>. , 1997, , .		2
108	Micromechanical Sensors. Nanostructure Science and Technology, 2004, , 417-439.	0.1	2

#	ARTICLE	IF	CITATIONS
109	Spray-on superhydrophobic coatings with high mechanical durability for anti-corrosion and anti-soiling applications. , 2014, , .		2
110	Spray-on anti-soiling coatings that exhibit high transparency and mechanical durability. Proceedings of SPIE, 2014, , .	0.8	2
111	<title>Fabrication of integrated diffractive micro-optics for MEMS applications</title>. , 2001, , .		1
112	Chemical Sensors Based on Functionalized Microcantilever Arrays. , 2006, , .		1
113	Using micro-electro-mechanical systems (MEMS) as small antennas. , 2012, , .		1
114	Nonlinear mechanical resonators for ultra-sensitive mass detection. Proceedings of SPIE, 2014, , .	0.8	1
115	Multi-spectral Infrared Computed Tomography. IS&T International Symposium on Electronic Imaging, 2016, 28, 1-5.	0.4	1
116	Temperature Dependence of the Dissociative Electron Attachment to CH ₃ Cl and C ₂ H ₅ Cl. , 1991, , 35-42.		1
117	Attachment of Low Energy Electrons to "Hot"-SF ₆ Molecules. , 1994, , 23-30.		1
118	Response to "Comment on "Temperature-enhanced electron detachment from C ₆ F ₆ " negative ions" [J. Chem. Phys. 100, 6981 (1994)]. Journal of Chemical Physics, 1994, 100, 6983-6983.	3.0	0
119	<title>Miniature uncooled infrared sensitive detectors for in-vivo biomedical applications</title>. , 1998, 3253, 94.		0
120	<title>Novel magnetic, acoustic, and chemical microsensors for in-situ, real-time, and unattended use</title>. , 2001, , .		0
121	<title>Integrated and simultaneous multiparameter sensing for tactical applications</title>. , 2001, , .		0
122	Multiparameter integrated sensor development involving alternate materials. , 2001, , .		0
123	Nanomechanics weighs in. Physics World, 2004, 17, 19-20.	0.0	0
124	Mechanical structures feel the chill. Physics World, 2005, 18, 25-26.	0.0	0
125	Distributed optical microsensors for hydrogen leak detection and related applications. , 2010, , .		0
126	Detection of electromagnetic waves using MEMS antennas. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
127	Detection of electromagnetic waves using charged cantilevers. Applied Physics Letters, 2012, 100, 103108.	3.3	0
128	Hybrid Nanostructured Microcantilevers for Enhanced Chemimechanical Transduction and Surface Enhanced Raman Spectroscopy. , 2001, , 450-452.		0
129	<title>Dual-fiber optic microcantilever proximity sensor</title>. , 2001, , .		0
130	Sensor Science for National Security. NATO Science for Peace and Security Series C: Environmental Security, 2009, , 461-478.	0.2	0
131	Effect of Temperature on the Electron Attachment and Detachment Properties of c-C4F6. , 1994, , 13-20.		0