

Tuncay Alan

List of Publications by Year in descending order

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66
papers

1,942
citations

257101

24
h-index

253896

43
g-index

66
all docs

66
docs citations

66
times ranked

2360
citing authors

#	ARTICLE	IF	CITATIONS
1	A Lotus shaped acoustofluidic mixer: High throughput homogenisation of liquids in 2Âms using hydrodynamically coupled resonators. Ultrasonics Sonochemistry, 2022, 83, 105936.	3.8	6
2	X-ray compatible microfluidics for in situ studies of chemical state, transport and reaction of light elements in an aqueous environment using synchrotron radiation. Lab on A Chip, 2022, , .	3.1	2
3	A star shaped acoustofluidic mixer enhances rapid malaria diagnostics <i>via</i> cell lysis and whole blood homogenisation in 2 seconds. Lab on A Chip, 2022, 22, 1829-1840.	3.1	7
4	Haemoprocessor: A Portable Platform Using Rapid Acoustically Driven Plasma Separation Validated by Infrared Spectroscopy for Point-of-Care Diagnostics. Biosensors, 2022, 12, 119.	2.3	6
5	Graphene Elastomer Electrodes for Medical Sensing Applications: Combining High Sensitivity, Low Noise and Excellent Skin Compatibility to Enable Continuous Medical Monitoring. IEEE Sensors Journal, 2021, 21, 13967-13975.	2.4	15
6	High throughput acoustic microfluidic mixer controls self-assembly of protein nanoparticles with tuneable sizes. Journal of Colloid and Interface Science, 2021, 585, 229-236.	5.0	22
7	Synthesis of CsPbBr₃ perovskite nanocrystals with acoustically actuated millisecond mixing. Journal of Materials Chemistry C, 2021, 9, 313-321.	2.7	11
8	Microfluidic Devices for Biosensing. , 2021, , .		0
9	Microfluidic Processing of Ligandâ€Engineered NiO Nanoparticles for Lowâ€Temperature Holeâ€Transporting Layers in Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100342.	3.1	11
10	An ultra-portable, self-contained point-of-care nucleic acid amplification test for diagnosis of active COVID-19 infection. Scientific Reports, 2021, 11, 15176.	1.6	24
11	Ultrasensitive WSe₂ field-effect transistor-based biosensor for label-free detection of cancer in point-of-care applications. 2D Materials, 2021, 8, 045005.	2.0	23
12	Contactless tracking of humans using non-contact triboelectric sensing technology: Enabling new assistive applications for the elderly and the visually impaired. Nano Energy, 2021, 90, 106486.	8.2	38
13	On-demand sample injection: combining acoustic actuation with a tear-drop shaped nozzle to generate droplets with precise spatial and temporal control. Lab on A Chip, 2020, 20, 253-265.	3.1	11
14	Ultrafast star-shaped acoustic micromixer for high throughput nanoparticle synthesis. Lab on A Chip, 2020, 20, 582-591.	3.1	55
15	<i>In situ</i> synthesis of silver nanowire gel and its super-elastic composite foams. Nanoscale, 2020, 12, 19861-19869.	2.8	18
16	Nanofluidic and monolithic environmental cells for cryogenic microscopy. Nanotechnology, 2019, 30, 085301.	1.3	4
17	Acoustically enhanced microfluidic mixer to synthesize highly uniform nanodrugs without the addition of stabilizers. International Journal of Nanomedicine, 2018, Volume 13, 1353-1359.	3.3	25
18	Droplet control technologies for microfluidic high throughput screening (1¼HTS). Lab on A Chip, 2017, 17, 2372-2394.	3.1	82

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19	Detecting Subtle Vibrations Using Graphene-Based Cellular Elastomers. ACS Applied Materials & Interfaces, 2017, 9, 11345-11349.	4.0	32
20	Surface acoustic wave enabled pipette on a chip. Lab on A Chip, 2017, 17, 438-447.	3.1	40
21	On-chip droplet production regimes using surface acoustic waves. Lab on A Chip, 2016, 16, 1675-1683.	3.1	45
22	Droplet Manipulation Using Acoustic Streaming Induced by a Vibrating Membrane. Analytical Chemistry, 2016, 88, 5696-5703.	3.2	28
23	Ultrasensitive Strain Sensor Produced by Direct Patterning of Liquid Crystals of Graphene Oxide on a Flexible Substrate. ACS Applied Materials & Interfaces, 2016, 8, 22501-22505.	4.0	52
24	The importance of travelling wave components in standing surface acoustic wave (SSAW) systems. Lab on A Chip, 2016, 16, 3756-3766.	3.1	102
25	Ultrafast Dynamic Piezoresistive Response of Graphene-Based Cellular Elastomers. Advanced Materials, 2016, 28, 194-200.	11.1	171
26	Reliability of Nanostructures. , 2016, , 3441-3446.		0
27	Acoustic Resonator Optimisation for Airborne Particle Manipulation. Physics Procedia, 2015, 70, 6-9.	1.2	0
28	Feedback-Controlled MEMS Force Sensor for Characterization of Microcantilevers. Journal of Microelectromechanical Systems, 2015, 24, 1092-1101.	1.7	19
29	Microfluidic plug steering using surface acoustic waves. Lab on A Chip, 2015, 15, 3030-3038.	3.1	55
30	Tuning the oxygen functional groups in reduced graphene oxide papers to enhance the electromechanical actuation. RSC Advances, 2015, 5, 68052-68060.	1.7	9
31	2D individual particle grids patterned with surface acoustic waves. , 2015, , .		0
32	Vibrating membrane with discontinuities for rapid and efficient microfluidic mixing. Lab on A Chip, 2015, 15, 4206-4216.	3.1	68
33	Using Nano-mechanics and Surface Acoustic Wave (SAW) for Disease Monitoring and Diagnostics at a Cellular Level in Red Blood Cells. Physics Procedia, 2015, 70, 18-20.	1.2	2
34	A MEMS capacitive pH sensor for high acidic and basic solutions. , 2014, , .		5
35	Force-compensating MEMS sensor for AFM cantilever stiffness calibration. , 2014, , .		0
36	Single line particle focusing using a vibrating bubble. Applied Physics Letters, 2014, 105, .	1.5	20

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37	Zero displacement microelectromechanical force sensor using feedback control. Applied Physics Letters, 2014, 104, 153502.	1.5	18
38	Continuous flow ultrasonic particle trapping in a glass capillary. Journal of Applied Physics, 2014, 115, .	1.1	25
39	The particle valve: On-demand particle trapping, filtering, and release from a microfabricated polydimethylsiloxane membrane using surface acoustic waves. Applied Physics Letters, 2014, 105, .	1.5	44
40	Characterization of adhesive properties of red blood cells using surface acoustic wave induced flows for rapid diagnostics. Applied Physics Letters, 2014, 105, .	1.5	40
41	Open microdroplet diluter for concentration-gradient generation. Applied Physics Express, 2014, 7, 087201.	1.1	2
42	Particle separation using virtual deterministic lateral displacement (vDLD). Lab on A Chip, 2014, 14, 1595-1603.	3.1	126
43	Microfluidic on-demand droplet merging using surface acoustic waves. Lab on A Chip, 2014, 14, 3325-3333.	3.1	129
44	A microfabricated fringing field capacitive pH sensor with an integrated readout circuit. Applied Physics Letters, 2014, 104, .	1.5	11
45	Surface acoustic waves for on-demand production of picoliter droplets and particle encapsulation. Lab on A Chip, 2013, 13, 3225.	3.1	141
46	Nanoscale displacement sensing using microfabricated variable-inductance planar coils. Applied Physics Letters, 2013, 103, 143501.	1.5	24
47	The role height plays in the spreading of liquid droplets over sharp edges. Applied Physics Letters, 2013, 102, .	1.5	5
48	Stability of flowing open fluidic channels. AIP Advances, 2013, 3, .	0.6	11
49	Non-contact acoustic trapping in circular cross-section glass capillaries: A numerical study. Journal of the Acoustical Society of America, 2012, 132, 2978-2987.	0.5	12
50	Micro-fabricated channel with ultra-thin yet ultra-strong windows enables electron microscopy under 4-bar pressure. Applied Physics Letters, 2012, 100, .	1.5	40
51	Particle trapping in a capillary tube. , 2012, , .		0
52	Particle manipulation using an ultrasonic micro-gripper. Applied Physics Letters, 2012, 101, 163504.	1.5	20
53	Controlled particle self-assembly in an evaporating droplet. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 398, 64-68.	2.3	10
54	In-situ TEM on (de)hydrogenation of Pd at 0.5â€“4.5 bar hydrogen pressure and 20â€“400Â°C. Ultramicroscopy, 2012, 112, 47-52.	0.8	77

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55	Reliability of Nanostructures. , 2012, , 2221-2226.		0
56	Fabrication of AlN slender piezoelectric cantilevers for highspeed MEMS actuations. Procedia Engineering, 2011, 25, 673-676.	1.2	5
57	An all-in-one nanoreactor for high-resolution microscopy on nanomaterials at high pressures. , 2011, , .		21
58	Characterization of Ultrathin Membranes to Enable TEM Observation of Gas Reactions at High Pressures. , 2009, , .		5
59	A Comparative Study of the Strength of Si, SiN and SiC used at Nanoscales. Materials Research Society Symposia Proceedings, 2007, 1052, 1.	0.1	1
60	A Monte-Carlo simulation of the effect of surface morphology on the fracture of nanobeams. International Journal of Fracture, 2007, 148, 129-138.	1.1	8
61	Effect of surface morphology on the fracture strength of silicon nanobeams. Applied Physics Letters, 2006, 89, 091901.	1.5	32
62	Methyl monolayers improve the fracture strength and durability of silicon nanobeams. Applied Physics Letters, 2006, 89, 231905.	1.5	28
63	Limit Cycle Oscillations in CW Laser-Driven NEMS. Journal of Microelectromechanical Systems, 2004, 13, 1018-1026.	1.7	84
64	Shell-type micromechanical oscillator. , 2003, , .		9
65	Hopf Bifurcation in a Disk-Shaped NEMS. , 2003, , 1759.		6
66	Particle Manipulation in the Presence of Fluid Interfaces. , 0, , .		0