Van Thanh Dau

List of Publications by Year
in descending order

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140 papers	1,597 citations	257101 24 h-index	414034 32 g-index
141 all docs	141 docs citations	141 times ranked	816 citing authors

#	Article	IF	Citations
1	Advances in ultrasensitive piezoresistive sensors: from conventional to flexible and stretchable applications. Materials Horizons, 2021, 8, 2123-2150.	6.4	61
2	Development of a dual-axis thermal convective gas gyroscope. Journal of Micromechanics and Microengineering, 2006, 16, 1301-1306.	1.5	56
3	Development of PZT Actuated Valveless Micropump. Sensors, 2018, 18, 1302.	2.1	53
4	Numerical study and experimental validation of a valveless piezoelectric air blower for fluidic applications. Sensors and Actuators B: Chemical, 2015, 221, 1077-1083.	4.0	47
5	Advances in Rational Design and Materials of Highâ€Performance Stretchable Electromechanical Sensors. Small, 2020, 16, e1905707.	5.2	46
6	Corona based air-flow using parallel discharge electrodes. Experimental Thermal and Fluid Science, 2016, 79, 52-56.	1.5	43
7	Pressure and temperature sensitive e-skin for in situ robotic applications. Materials and Design, 2021, 208, 109886.	3.3	38
8	Bipolar corona discharge based air flow generation with low net charge. Sensors and Actuators A: Physical, 2016, 244, 146-155.	2.0	37
9	Designing of a Si-MEMS device with an integrated skeletal muscle cell-based bio-actuator. Biomedical Microdevices, 2011, 13, 123-129.	1.4	35
10	A cross-junction channel valveless-micropump with PZT actuation. Microsystem Technologies, 2009, 15, 1039-1044.	1.2	33
11	A 2-DOF convective micro accelerometer with a low thermal stress sensing element. Smart Materials and Structures, 2007, 16, 2308-2314.	1.8	32
12	Fabrication and Basic Characterization of a Piezoelectric Valveless Micro Jet Pump. Japanese Journal of Applied Physics, 2008, 47, 8615.	0.8	32
13	A MEMS-based silicon micropump with intersecting channels and integrated hotwires. Journal of Micromechanics and Microengineering, 2009, 19, 125016.	1.5	32
14	Development of a Dual-Axis Convective Gyroscope With Low Thermal-Induced Stress Sensing Element. Journal of Microelectromechanical Systems, 2007, 16, 950-958.	1.7	30
15	Fluidic device with pumping and sensing functions for precise flow control. Sensors and Actuators B: Chemical, 2010, 150, 819-824.	4.0	29
16	Bipolar corona assisted jet flow for fluidic application. Flow Measurement and Instrumentation, 2016, 50, 252-260.	1.0	28
17	Jet flow generation in a circulatory miniaturized system. Sensors and Actuators B: Chemical, 2016, 223, 820-826.	4.0	28
18	Jet flow in a circulatory miniaturized system using ion wind. Mechatronics, 2017, 47, 126-133.	2.0	28

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19	Integrated CNTs thin film for MEMS mechanical sensors. Microelectronics Journal, 2010, 41, 860-864.	1.1	26
20	Ion Wind Generator Utilizing Bipolar Discharge in Parallel Pin Geometry. IEEE Transactions on Plasma Science, 2016, 44, 2979-2987.	0.6	26
21	Pressure sensor based on bipolar discharge corona configuration. Sensors and Actuators A: Physical, 2016, 237, 81-90.	2.0	26
22	Integration of SWNT film into MEMS for a micro-thermoelectric device. Smart Materials and Structures, 2010, 19, 075003.	1.8	25
23	Design Study of Multidirectional Jet Flow for a Triple-Axis Fluidic Gyroscope. IEEE Sensors Journal, 2015, 15, 4103-4113.	2.4	25
24	Simulation and Fabrication of a Convective Gyroscope. IEEE Sensors Journal, 2008, 8, 1530-1538.	2.4	24
25	Dielectrophoresis Microfluidic Enrichment Platform with Built-In Capacitive Sensor for Rare Tumor Cell Detection. Biochip Journal, 2018, 12, 114-122.	2.5	24
26	Design and development of a microfluidic droplet generator with vision sensing for lab-on-a-chip devices. Sensors and Actuators A: Physical, 2021, 332, 113047.	2.0	23
27	A multi axis fluidic inertial sensor. , 2008, , .		22
28	Design and Simulation of a Novel 3-DOF MEMS Convective Gyroscope. IEEJ Transactions on Sensors and Micromachines, 2008, 128, 219-224.	0.0	22
29	First report of Fusarium wilt of watermelon in Vietnam. Australasian Plant Disease Notes, 2009, 4, 1.	0.4	21
30	Design and fabrication of convective inertial sensor consisting of 3DOF gyroscope and 2DOF accelerometer. , 2009, , .		21
31	Piezo-resistive and thermo-resistance effects of highly-aligned CNT based macrostructures. RSC Advances, 2016, 6, 106090-106095.	1.7	20
32	A Wearable, Bending-Insensitive Respiration Sensor Using Highly Oriented Carbon Nanotube Film. IEEE Sensors Journal, 2021, 21, 7308-7315.	2.4	20
33	Fluidic mechanism for dual-axis gyroscope. Mechanical Systems and Signal Processing, 2018, 108, 73-87.	4.4	19
34	Particle precipitation by bipolar corona discharge ion winds. Journal of Aerosol Science, 2018, 124, 83-94.	1.8	18
35	Self-powered monolithic accelerometer using a photonic gate. Nano Energy, 2020, 76, 104950.	8.2	18
36	Low-Cost Graphite on Paper Pressure Sensor for a Robot Gripper with a Trivial Fabrication Process. Sensors, 2018, 18, 3300.	2.1	17

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37	Polyacrylonitrileâ€carbon Nanotubeâ€polyacrylonitrile: A Versatile Robust Platform for Flexible Multifunctional Electronic Devices in Medical Applications. Macromolecular Materials and Engineering, 2019, 304, 1900014.	1.7	17
38	Integrated, Transparent Silicon Carbide Electronics and Sensors for Radio Frequency Biomedical Therapy. ACS Nano, 2022, 16, 10890-10903.	7.3	17
39	Study of valveless electromagnetic micropump by volume-of-fluid and OpenFOAM. Japanese Journal of Applied Physics, 2015, 54, 057201.	0.8	16
40	A study of angular rate sensing by corona discharge ion wind. Sensors and Actuators A: Physical, 2018, 277, 169-180.	2.0	16
41	Simulation and Experimental Study of a Synthetic Jet Valveless Pump. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1162-1170.	3.7	16
42	A new structure of Tesla coupled nozzle in synthetic jet micro-pump. Sensors and Actuators A: Physical, 2020, 315, 112296.	2.0	15
43	High temperature silicon-carbide-based flexible electronics for monitoring hazardous environments. Journal of Hazardous Materials, 2020, 394, 122486.	6.5	15
44	Enhanced Electrohydrodynamics for Electrospinning a Highly Sensitive Flexible Fiber-Based Piezoelectric Sensor. ACS Applied Electronic Materials, 2022, 4, 1301-1310.	2.0	15
45	Charge reduced nanoparticles by sub-kHz ac electrohydrodynamic atomization toward drug delivery applications. Applied Physics Letters, 2020, 116, .	1.5	14
46	Corona anemometry using dual pin probe. Sensors and Actuators A: Physical, 2017, 257, 185-193.	2.0	13
47	Convective Gas Gyroscope Based on Thermo-Resistive Effect in Si P-N Junction. , 2007, , .		12
48	A dynamic model for studying valveless electromagnetic micropumps. Journal of Micromechanics and Microengineering, 2011, 21, 025015.	1.5	12
49	A micromirror with CNTs hinge fabricated by the integration of CNTs film into a MEMS actuator. Journal of Micromechanics and Microengineering, 2013, 23, 075024.	1.5	12
50	A dual axis thermal convective silicon gyroscope. , 0, , .		11
51	First report ofNeocosmospora vasinfectaassociated with the root rot complex of peanuts in Vietnam. Australasian Plant Disease Notes, 2010, 5, 79.	0.4	11
52	Piezoresistive Effect with a Gauge Factor of 18â€000 in a Semiconductor Heterojunction Modulated by Bonded Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2021, 13, 35046-35053.	4.0	11
53	Multimodal Fibrous Static and Dynamic Tactile Sensor. ACS Applied Materials & Interfaces, 2022, 14, 27317-27327.	4.0	11
54	Tri-axis convective accelerometer with closed-loop heat source. Sensors and Actuators A: Physical, 2018, 275, 51-59.	2.0	10

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55	Dielectrophoresis can control the density of CNT membranes as confirmed by experiment and dissipative particle simulation. Carbon, 2019, 155, 279-286.	5.4	10
56	The concept of light-harvesting, self-powered mechanical sensors using a monolithic structure. Nano Energy, 2022, 96, 107030.	8.2	10
57	Dual-pin electrohydrodynamic generator driven by alternating current. Experimental Thermal and Fluid Science, 2018, 97, 290-295.	1.5	9
58	Vortex flow generator utilizing synthetic jets by diaphragm vibration. International Journal of Mechanical Sciences, 2018, 142-143, 432-439.	3.6	9
59	Generation of a Charge Carrier Gradient in a 3C-SiC/Si Heterojunction with Asymmetric Configuration. ACS Applied Materials & Interfaces, 2021, 13, 55329-55338.	4.0	9
60	Ultrasensitive Self-Powered Position-Sensitive Detector Based on n-3C-SiC/p-Si Heterojunctions. ACS Applied Electronic Materials, 2022, 4, 768-775.	2.0	9
61	A Dual Axis Accelerometer Utilizing Low Doped Silicon Thermistor. IEEJ Transactions on Sensors and Micromachines, 2006, 126, 190-194.	0.0	8
62	A Fully Integrated MEMS-Based Convective 3-DOF Gyroscope. , 2007, , .		8
63	Microfluidic valveless pump actuated by electromagnetic force. , 2009, , .		8
64	Towards highly sensitive strain sensing based on nanostructured materials. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2010, 1, 045012.	0.7	8
65	Soft ionic liquid multi-point touch sensor. RSC Advances, 2019, 9, 10733-10738.	1.7	8
66	A Circulatory Ionic Wind for Inertial Sensing Application. IEEE Electron Device Letters, 2019, 40, 1182-1185.	2.2	8
67	Calcium phosphate stability on melt electrowritten PCL scaffolds. Journal of Science: Advanced Materials and Devices, 2020, 5, 30-39.	1.5	8
68	Ultra miniature novel three-axis micro accelerometer. , 2009, , .		7
69	Lithography and Etchingâ€Free Microfabrication of Silicon Carbide on Insulator Using Direct UV Laser Ablation. Advanced Engineering Materials, 2020, 22, 1901173.	1.6	7
70	Estimating the effect of asymmetric electrodes in bipolar discharge ion wind generator. IEEE Transactions on Dielectrics and Electrical Insulation, 2018, 25, 900-907.	1.8	6
71	Effect of axisymmetric magnetic field strength on heat transfer from a current-carrying micro-wire in ferrofluid. International Journal of Thermal Sciences, 2021, 167, 106976.	2.6	6
72	Adual Axis Gas Gyroscope Based on Convective and Thermo-Resistive Effects in Silicon with Low Thermal-Induced Stress Sensing Element. , 0, , .		5

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73	Stem and root rot ofTelosma cordatacaused byPhytophthora palmivorain Vietnam â€“ a newly recognised disease. Australasian Plant Disease Notes, 2008, 3, 135.	0.4	5
74	Phytophthora stem rot of purple passionfruit in Vietnam. Australasian Plant Disease Notes, 2015, 10, 1.	0.4	5
75	Study on the PZT diaphragm actuated multiple jet flow in a circulatory miniaturized system. , 2015, , .		5
76	A valveless micropump based on additive fabrication technology. International Journal of Nanotechnology, 2018, 15, 1010.	0.1	5
77	Transient Characteristics of a Fluidic Device for Circulatory Jet Flow. Sensors, 2018, 18, 849.	2.1	5
78	A Robust Two-axis Tilt Angle Sensor Based on Air/Liquid Two-phase Dielectric Capacitive Sensing Structure. IETE Journal of Research, 2020, 66, 685-696.	1.8	5
79	Design and Simulation of Convective Inertial Sensor. , 2008, , .		4
80	Study on geometry of valveless-micropump. , 2009, , .		4
81	Development of a jet-generator and its application to angular rate sensor. , 2015, , .		4
82	An electrohydrodynamic gyroscope. Sensors and Actuators A: Physical, 2020, 315, 112291.	2.0	4
83	Development of a 3-DOF silicon piezoresistive micro accelerometer. , 0, , .		3
84	Fabrication and Characterization of 2-DOF Micro Convective Accelerometer. , 2006, , .		3
85	Design and Fabrication of a Convective 3-DOF Angular Rate Sensor. , 2007, , .		3
86	Sensitivity enhancement of piezoresistive micro acceleration sensors with Nanometer Stress Concentration Regions on sensing elements. , 2009, , .		3
87	Development of new electrostatic micro cam system driven by elastic wings. Microsystem Technologies, 2017, 23, 5669-5675.	1.2	3
88	Study on Point-to-Ring Corona Based Gyroscope. , 2019, , .		3
89	Flexible and Wearable Flow Sensor Using Spinnable Carbon Nanotube Nanofilm for Respiration Monitoring. , 2020, , .		3
90	First report ofPhoma terrestriscausing pink root rot of Chinese onion in Vietnam. Australasian Plant Disease Notes, 2008, 3, 147.	0.4	3

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91	Light-Harvesting Self-Powered Monolithic-Structure Temperature Sensing Based on 3C-SiC/Si Heterostructure. ACS Applied Materials & Interfaces, 2022, 14, 22593-22600.	4.0	3
92	Stretchable, Skin-Breathable, and Ultrasensitive Respiration Sensor Using Graphite on Paper With Smart Structures. IEEE Sensors Journal, 2022, 22, 16804-16810.	2.4	3
93	Design and fabrication process of a micropump using bulk Pb(Zr,Ti)O 3 for microfluidic devices. , 2007, 6800, 439.		2
94	Optimization of PZT Diaphragm Pump for the Convective Gyroscope. IEEJ Transactions on Sensors and Micromachines, 2007, 127, 347-352.	0.0	2
95	Numerical design and performance of a valveless micropump. , 2008, , .		2
96	Piezoresistive and thermoelectric effects of CNT thin film patterned by EB lithography. , 2009, , .		2
97	Design and Simulation of a Valveless Micro Pump. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2009, 3, 69-75.	0.3	2
98	Jet flow focusing by corona discharge for fluidic application. , 2016, , .		2
99	Absolute pressure sensing with bipolar corona discharge: Design, simulation and experimental validation. , 2016, , .		2
100	Ionic JET flow in a circulatory miniaturized system. , 2017, , .		2
101	Computational and experimental study on ion wind scheme based aerosol sampling for biomedical applications. , 2017, , .		2
102	Design and Simulation of MEMS Based Piezoresitive Pressure Sensor for Microfluidic Applications. , 2018, , .		2
103	Experimental Characterization of an Ionically Conductive Fluid Based High Flexibility Strain Sensor. Lecture Notes in Networks and Systems, 2019, , 318-323.	0.5	2
104	Wearable Fluidic Strain Sensor for Human Motion Sensing. , 2020, , .		2
105	Low-Cost Multifunctional Ionic Liquid Pressure and Temperature Sensor. Smart Innovation, Systems and Technologies, 2019, , 184-192.	0.5	2
106	Low-power static and dynamic tactile sensing using in-situ fabricated PVDF-TrFE e-skin. , 2021, , .		2
107	Electric Field-Enhanced Electrohydrodynamic Process For Fabrication of Highly Sensitive Piezoelectric Sensor. , 2022, , .		2
108	Design and Simulation of Piezoresistive Micro Accelerometers for Wearable Sensing Applications. , 2008, , .		1

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109	Fabrication and characterization of silicon micro mirror with CNT hinge. , 2011, , .		1
110	Fabrication of Piezoelectric Vibration Power Harvester using Bulk PZT. Key Engineering Materials, 0, 483, 631-634.	0.4	1
111	Coplanar differential capacitively coupled contactless conductivity detection (CD-C4D) sensor for micro object inside fluidic flow recognization. , 2017, , .		1
112	Dielectrophoresis enrichment with built-in capacitive sensor microfluidic platform for tumor rare cell detection. , 2017, , .		1
113	A symmetrically arranged electrodes for corona discharge anemometry. , 2017, , .		1
114	Robust Angular Rate Sensor Based on Corona Discharge Ion Wind. , 2018, , .		1
115	Liquid Pumping and Mixing by Pzt Synthetic Jet. , 2019, , .		1
116	Study on Flow-Focusing Microfluidic Device with External Electric Field for Droplet Generation. Lecture Notes in Networks and Systems, 2019, , 553-559.	0.5	1
117	Design and development of an automated fluid management system for endoscopy aided gynaecological surgeries. IOP Conference Series: Materials Science and Engineering, 2020, 922, 012008.	0.3	1
118	Physical Sensors: Thermal Sensors. , 2021, , .		1
119	In-Situ Depostion of Pressure and Temperature Sensitive E-Skin for Robotic Applications. , 2021, , .		1
120	Carbon Nanotube Four-Terminal Devices for Pressure Sensing Applications. Smart Innovation, Systems and Technologies, 2019, , 199-207.	0.5	1
121	Integration of CNTs thin film for sensing and actuating micro structures. Vietnam Journal of Mechanics, 2012, 34, 299-309.	0.2	1
122	Seebeck coefficient in SiC/Si heterojunction for self-powered thermal sensor. , 2021, , .		1
123	Design and fabrication of paper-based stretchable sensor for respiration monitoring. , 2021, , .		1
124	Simultaneous Generation and Delivery of Neutral Polymeric Aerosol by Electro-Hydrodynamic Nebulizer. , 2022, , .		1
125	A dual axis silicon gyroscope based on thermal convective effect. , 0, , .		0
126	Development of micro motion sensors based on piezoresistive and thermo-resistive effects in silicon. , 2005, , .		0

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127	Optimization and characterizations of the dual axis gas gyroscope. , 0, , .		0
128	Development of a Dual Axis Convective Gyroscope with Embedded Heater and Low Thermal-stress Thermistors. , 2006, , .		0
129	Fabrication of a gas flow device consisting of micro-jet pump and flow sensor. Proceedings of SPIE, 2008, , .	0.8	0
130	A cross-junction channel valveless-micropump with integrated hotwires for fluidic application. , 2009, , .		0
131	Comparison of Bonding of Bulk PZT to Silicon by Intermediate Glass Layer and by Intermediate Au Layer. Materials Science Forum, 0, 663-665, 490-493.	0.3	0
132	A Closed Device to Generate Vortex Flow Using PZT. , 2018, , .		0
133	Angular Rate Sensing by Circulatory Vortex Flow: Design, Simulation and Experiment. , 2019, , .		0
134	Numerical Study and Experimental Investigation of an Electrohydrodynamic Device for Inertial Sensing. , 2021, , .		0
135	Invited Talk: Flexible electronics fabricated by electric field- enhanced electrospinning. , 2021, , .		0
136	Characterization of Gelatin and PVA Nanofibers Fabricated Using Electrospinning Process. Lecture Notes in Networks and Systems, 2021, , 216-222.	0.5	0
137	Study on Thermal Convective Gas Gyroscope Based on Corona Discharge Ion Wind and Coriolis Effect. Lecture Notes in Networks and Systems, 2021, , 741-747.	0.5	0
138	Ultrasensitive strain sensor enhanced by Bonded Light Emitting Diodes. , 2021, , .		0
139	Rapid Fabrication of High-responsivity Photodetectors Utilizing AlGaN/GaN on Sapphire. , 2021, , .		0
140	Giant Piezotronic Effect by Photoexcitationâ€“Electronic Coupling in a p-GaN/AlGaN/GaN Heterojunction. ACS Applied Electronic Materials, 2022, 4, 2648-2655.	2.0	0