

# Nguyen Van Toan

## List of Publications by Year in descending order

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91  
papers

800  
citations

471509

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h-index

610901

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g-index

91  
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91  
docs citations

91  
times ranked

539  
citing authors

#	ARTICLE	IF	CITATIONS
1	High Density Micro-Thermoelectric Generator Based On Electrodeposition of Bi <sub>2</sub> Te <sub>3</sub> and Sb <sub>2</sub> Te <sub>3</sub> . , 2022, , .		0
2	Self-powered wireless sensing system driven by daily ambient temperature energy harvesting. Applied Energy, 2022, 311, 118679.	10.1	4
3	Ultra-flexible thermoelectric generator based on silicone rubber sheet and electrodeposited thermoelectric material for waste heat harvesting. Energy Reports, 2022, 8, 5026-5037.	5.1	14
4	High-performance flexible thermoelectric generator for self-powered wireless BLE sensing systems. Journal of Power Sources, 2022, 536, 231504.	7.8	7
5	Density effects of vertical graphene nanowalls on supercapacitor performance. Materials Advances, 2022, 3, 5406-5417.	5.4	2
6	Nanoengineered nanochannels for thermally ionic nanofluidic energy harvesting. Energy Conversion and Management, 2022, 264, 115760.	9.2	1
7	Micro-heat sink based on silicon nanowires formed by metal-assisted chemical etching for heat dissipation enhancement to improve performance of micro-thermoelectric generator. Energy Conversion and Management, 2022, 267, 115923.	9.2	5
8	Torsional resonator of Pd–Si–Cu metallic glass with a low rotational spring constant. Microsystem Technologies, 2021, 27, 929-935.	2.0	1
9	Aluminum doped zinc oxide deposited by atomic layer deposition and its applications to micro/nano devices. Scientific Reports, 2021, 11, 1204.	3.3	25
10	Morphological Analysis and Properties Evaluation of Electrodeposited Thick BiSbTe Films with Cooperative Interactions among Multiple Additives. Journal of the Electrochemical Society, 2021, 168, 022505.	2.9	12
11	Heat storage thermoelectric generator as an electrical power source for wireless IoT sensing systems. International Journal of Energy Research, 2021, 45, 15557-15568.	4.5	21
12	Formation and Evaluation of Silicon Substrate with Highly-Doped Porous Si Layers Formed by Metal-Assisted Chemical Etching. Nanoscale Research Letters, 2021, 16, 64.	5.7	8
13	Heat Storage Thermoelectric Generator for Wireless IOT Sensing Systems. , 2021, , .		3
14	Vertically-oriented graphene electrodeposited with MnO <sub>2</sub> on native SiO <sub>2</sub> /Si for high-performance supercapacitor electrodes. Journal of Electroanalytical Chemistry, 2021, 895, 115507.	3.8	12
15	Evaluation of Microfluidic Channels With Thin Si Windows and Trapping Structures. Journal of Microelectromechanical Systems, 2021, 30, 560-568.	2.5	0
16	Thermoelectric generator with a high integration density for portable and wearable self-powered electronic devices. Energy Conversion and Management, 2021, 245, 114571.	9.2	25
17	Temperature-dependence of the electrical impedance properties of sodium hydroxide-contained polyethylene oxide as an ionic liquid. Sensors and Actuators A: Physical, 2020, 316, 112369.	4.1	4
18	Bridged resonator based on assembled Si thin wire. Journal of Micromechanics and Microengineering, 2020, 30, 105015.	2.6	2

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19	Micro-Fabricated Pressure Sensor Using 50 nm-Thick of Pd-Based Metallic Glass Freestanding Membrane. <i>Scientific Reports</i> , 2020, 10, 10108.	3.3	12
20	Thermoelectrical properties of silicon substrates with nanopores synthesized by metal-assisted chemical etching. <i>Nanotechnology</i> , 2020, 31, 455705.	2.6	12
21	Magnetostrictive Performance of Electrodeposited $Tb_xDy_{(1-x)}Fe_y$ Thin Film with Microcantilever Structures. <i>Micromachines</i> , 2020, 11, 523.	2.9	10
22	Liquid and solid states on-chip micro-supercapacitors using silicon nanowire-graphene nanowall-pani electrode based on microfabrication technology. <i>Materials Research Bulletin</i> , 2020, 131, 110977.	5.2	17
23	Micropatterning and Integration of Electrospun PVDF Membrane Into Microdevice. <i>Journal of Microelectromechanical Systems</i> , 2020, 29, 438-445.	2.5	6
24	High Performance Micro-Thermoelectric Generator Based on Metal Doped Electrochemical Deposition. , 2020, , .		0
25	Carbon Black Nanoparticles Inclusion in Bismuth Telluride Film for Micro Thermoelectric Generator Application. , 2020, , .		3
26	Theoretical and experimental investigation of a thermoelectric generator (TEG) integrated with a phase change material (PCM) for harvesting energy from ambient temperature changes. <i>Energy Reports</i> , 2020, 6, 2022-2029.	5.1	51
27	Thermoelectric generators for heat harvesting: From material synthesis to device fabrication. <i>Energy Conversion and Management</i> , 2020, 225, 113442.	9.2	32
28	High Performance Thermoelectric Films with Nanoengineered Electrochemical Process for Micro Thermoelectric Power Generators. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 1204-1204.	0.0	1
29	Low Cost and High Aspect Ratio Micro/Nano Device Fabrication by Using Innovative Metal-Assisted Chemical Etching Method. <i>Advanced Engineering Materials</i> , 2019, 21, 1900490.	3.5	19
30	Electrolyte Based Thermal to Electric Energy Conversion Utilising 10 nm Diameter $Al_2O_3$ Nanochannels. , 2019, , .		1
31	Temperature Sensor Using Two Thermoelectric Liquid Electrolytes in Microfluidic Channels. , 2019, , .		0
32	Nanoelectromechanical Logical Gates Utilising Selective Tungsten Chemical Vapor Deposition. , 2019, , .		0
33	Thermoelectric power battery using $Al_2O_3$ nanochannels of 10 nm diameter for energy harvesting of low-grade waste heat. <i>Energy Conversion and Management</i> , 2019, 199, 111979.	9.2	24
34	Metal-Assisted Chemical Etching Method Subjected to Micro/Nano Device Fabrication. , 2019, , .		0
35	Electrostatically Driven Nanoelectromechanical Logical Gates Utilising Selective Tungsten Chemical Vapor Deposition. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800797.	1.8	2
36	Liquid Thermocouple Using Thermoelectric Ionic Liquids. , 2019, 3, 1-4.		12

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37	Metal-assisted-chemical-etching of silicon nanowires for templating 3D graphene growth towards energy storage in microsystems. Journal of Micromechanics and Microengineering, 2019, 29, 055007.	2.6	25
38	Investigation of the Impact of External Stress on Memory Characteristics by Modifying the Backside of Substrate. IEEE Transactions on Electron Devices, 2019, 66, 1741-1746.	3.0	1
39	Fabrication of on-chip vacuum pump using a silicon nanostructure by metal-assisted chemical etching. IEEJ Transactions on Electrical and Electronic Engineering, 2019, 14, 954-958.	1.4	1
40	Magnetostrictive Performance of Electrodeposited TBXDY(1-X)FEY Thin Filmevaluated from Microactuator. , 2019, , .		0
41	<i>(Invited)</i> Nanoengineered Thermoelectric Energy Devices for IoT Sensing Applications. ECS Transactions, 2019, 92, 163-168.	0.5	10
42	Resonant magnetic sensor using concentration of magnetic field gradient by asymmetric permalloy plates. Microsystem Technologies, 2019, 25, 3983-3989.	2.0	2
43	Logic gates based on electrically driven nanoelectromechanical switches. IEEJ Transactions on Electrical and Electronic Engineering, 2019, 14, 335-336.	1.4	1
44	Mechanical Resonant Magnetic Sensor Utilizing Magnetically Induced Compressive Load from Magnetostrictive Material. IEEJ Transactions on Sensors and Micromachines, 2019, 139, 21-26.	0.1	1
45	Carbon-Based Nanomaterials for Elastocaloric Cooling. The Proceedings of the Symposium on Micro-Nano Science and Technology, 2019, 2019.10, 20am2PN211.	0.0	0
46	Capacitive Silicon Resonator Structures. , 2019, , 9-20.		0
47	Knudsen pump produced via silicon deep RIE, thermal oxidation, and anodic bonding processes for on-chip vacuum pumping. Journal of Micromechanics and Microengineering, 2018, 28, 055001.	2.6	8
48	Evaluation of Piezoresistive Property of Vanadium Oxide Thin Film Deposited by Sputtering. , 2018, 2, 1-4.		8
49	Ion transport by gating voltage to nanopores produced via metal-assisted chemical etching method. Nanotechnology, 2018, 29, 195301.	2.6	18
50	Evaluation of piezoresistive property of vanadium oxide thin film. , 2018, , .		0
51	Electrically driven ion transport in nanopores fabricated by metal assisted chemical etching method. , 2018, , .		0
52	Impact of etch angles on cell characteristics in 3D NAND flash memory. Microelectronics Journal, 2018, 79, 1-6.	2.0	22
53	Fabrication of a SiO <sub>2</sub> optical window for controlling light transmission. Microsystem Technologies, 2017, 23, 919-927.	2.0	6
54	Fabrication of high aspect aluminum doped zinc oxide nanomechanical structures by deep RIE and ALD. , 2017, , .		0

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55	Flexible thermoelectric power generators based on electrochemical deposition process of Bi <sub>2</sub> Te <sub>3</sub> and Sb <sub>2</sub> Te <sub>3</sub> . , 2017, , .		1
56	Reversible low voltage electrowetting with SiO <sub>2</sub> ; capillary window for optical imaging. , 2017, , .		0
57	Cantilever with High Aspect Ratio Nanopillars on Its Top Surface for Moisture Detection in Electronic Products. Advanced Engineering Materials, 2017, 19, 1700203.	3.5	14
58	Fabrication and evaluation of capacitive silicon resonators with piezoresistive heat engines. Sensors and Actuators A: Physical, 2017, 262, 99-107.	4.1	11
59	High Aspect Ratio Silicon Structures Produced via Metal-Assisted Chemical Etching and Assembly Technology for Cantilever Fabrication. IEEE Nanotechnology Magazine, 2017, 16, 567-573.	2.0	24
60	Fabrication of <i>I</i> -type flexible thermoelectric generators using an electrochemical deposition method for thermal energy harvesting applications at room temperature. Journal of Micromechanics and Microengineering, 2017, 27, 125006.	2.6	42
61	Piezoresistive property of an aluminum-doped zinc oxide thin film deposited via atomic-layer deposition for microelectromechanical system/nanoelectromechanical system applications. IEEE Transactions on Electrical and Electronic Engineering, 2017, 12, S120.	1.4	3
62	High-aspect-ratio aluminum-doped zinc oxide nanomechanical resonator. IEEE Transactions on Electrical and Electronic Engineering, 2017, 12, S141.	1.4	1
63	Capacitive silicon resonators with piezoresistive heat engines. , 2017, , .		1
64	Knudsen pump based on silicon etching and thermal oxidation process for on-chip vacuum pumping. , 2017, , .		0
65	Synthesis and Evaluation of Thick Films of Electrochemically Deposited Bi <sub>2</sub> Te <sub>3</sub> and Sb <sub>2</sub> Te <sub>3</sub> Thermoelectric Materials. Materials, 2017, 10, 154.	2.9	45
66	Design and Fabrication of Capacitive Silicon Nanomechanical Resonators with Selective Vibration of a High-Order Mode. Micromachines, 2017, 8, 312.	2.9	6
67	Progress in performance enhancement methods for capacitive silicon resonators. Japanese Journal of Applied Physics, 2017, 56, 110101.	1.5	8
68	Vacuum Packaged Micro-Cantilever with a Magnetic Particle. IEEE Transactions on Sensors and Micromachines, 2017, 137, 245-246.	0.1	3
69	Humidity sensor based on the mechanical response of a cantilever with nanostructures on the surface. The Proceedings of Conference of Tohoku Branch, 2017, 2017.52, 164.	0.0	0
70	An Investigation of Processes for Glass Micromachining. Micromachines, 2016, 7, 51.	2.9	26
71	Fabrication of Vacuum-Sealed Capacitive Micromachined Ultrasonic Transducer Arrays Using Glass Reflow Process. Micromachines, 2016, 7, 76.	2.9	11
72	Glass reflow process and its applications. , 2016, , .		0

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73	Fabrication of High Aspect Ratio SiO <sub>2</sub> and Tempax Glass Pillar Structures and Its Application for Optical Modulator Device. Journal of Microelectromechanical Systems, 2016, 25, 668-674.	2.5	12
74	Single and mechanically coupled capacitive silicon nanomechanical resonators. Micro and Nano Letters, 2016, 11, 591-594.	1.3	9
75	Design and fabrication of a large area freestanding compressive stress SiO <sub>2</sub> optical window. Journal of Micromechanics and Microengineering, 2016, 26, 075016.	2.6	4
76	Flexible thermoelectric power generator based on electrochemical deposition process. , 2016, , .		1
77	Glass reflow process for microsystem applications. Journal of Micromechanics and Microengineering, 2016, 26, 115018.	2.6	5
78	Glass capillaries based on a glass reflow into nano-trench for controlling light transmission. Microsystem Technologies, 2016, 22, 2835-2840.	2.0	8
79	High Aspect Ratio SiO <sub>2</sub> Pillar Structures Capable of the Integration of an Image Sensor for Application of Optical Modulator. IEEJ Transactions on Sensors and Micromachines, 2016, 136, 41-42.	0.1	4
80	Fabrication of nano-gap structures based on plastic deformation of strained Si springs by stiction effects. Microsystem Technologies, 2015, 21, 649-654.	2.0	3
81	Capacitive silicon resonator structure with movable electrodes to reduce capacitive gap widths based on electrostatic parallel plate actuation. , 2014, , .		5
82	A capacitive silicon resonator with a movable electrode structure for gap width reduction. Journal of Micromechanics and Microengineering, 2014, 24, 025006.	2.6	22
83	Fabrication and evaluation of silicon micromechanical resonator using neutral beam etching technology. , 2014, , .		2
84	Mechanical quality factor enhancement in a silicon micromechanical resonator by low-damage process using neutral beam etching technology. Journal of Micromechanics and Microengineering, 2014, 24, 085005.	2.6	28
85	A Long Bar Type Silicon Resonator with a High Quality Factor. IEEJ Transactions on Sensors and Micromachines, 2014, 134, 26-31.	0.1	14
86	Microfabrication: Glass Reflow. , 2014, , 1-7.		0
87	Fabrication of an hermetically packaged silicon resonator on LTCC substrate. Microsystem Technologies, 2013, 19, 1165-1175.	2.0	30
88	Fabrication and packaging process of silicon resonators capable of the integration of LSI for application of timing device. , 2013, , .		2
89	Glass Patterning: Technologies and Applications. , 0, , .		1
90	Density Effects of Vertical Graphene Nanowalls on Supercapacitor Performance. SSRN Electronic Journal, 0, , .	0.4	0

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91	Micro-Thermoelectric Generators: Material Synthesis, Device Fabrication, and Application Demonstration. , 0, , .		3