

# Pietro Siciliano

## List of Publications by Year in descending order

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126  
papers

3,370  
citations

126907

33  
h-index

155660

55  
g-index

130  
all docs

130  
docs citations

130  
times ranked

4402  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative Analysis of Supervised Classifiers for the Evaluation of Sarcopenia Using a sEMG-Based Platform. <i>Sensors</i> , 2022, 22, 2721.	3.8	15
2	Ambient and Wearable Sensor Technologies for Energy Expenditure Quantification of Ageing Adults. <i>Sensors</i> , 2022, 22, 4893.	3.8	3
3	Analysis of Skeletal Muscles Contractility Using Smart SEMG-Based Socks. <i>Lecture Notes in Electrical Engineering</i> , 2021, , 39-47.	0.4	0
4	Modeling, Fabrication and Integration of Wearable Smart Sensors in a Monitoring Platform for Diabetic Patients. <i>Sensors</i> , 2021, 21, 1847.	3.8	9
5	Blood, urine and semen Volatile Organic Compound (VOC) pattern analysis for assessing health environmental impact in highly polluted areas in Italy. <i>Environmental Pollution</i> , 2021, 286, 117410.	7.5	28
6	Comparison Between Deep Learning Models and Traditional Machine Learning Approaches for Facial Expression Recognition in Ageing Adults. <i>Journal of Computer Science and Technology</i> , 2020, 35, 1127-1146.	1.5	23
7	Rhodium as efficient additive for boosting acetone sensing by TiO <sub>2</sub> nanocrystals. Beyond the classical view of noble metal additives. <i>Sensors and Actuators B: Chemical</i> , 2020, 319, 128338.	7.8	6
8	Synthesis and Piezoelectric Characterization of UV-Curable Nanocellulose/ZnO/AlN Polymeric Flexible Films for Green Energy Generation Applications. <i>Proceedings (mdpi)</i> , 2020, 56, .	0.2	0
9	Smart EMG-based Socks for Leg Muscles Contraction Assessment. , 2019, , .		10
10	Big Data Analytics in Smart Living Environments for Elderly Monitoring. <i>Lecture Notes in Electrical Engineering</i> , 2019, , 301-309.	0.4	2
11	Radar Sensing of Vital Signs in Assisted Living Applications. <i>Lecture Notes in Electrical Engineering</i> , 2019, , 3-22.	0.4	1
12	Facial Expression Recognition in Ageing Adults: A Comparative Study. <i>Lecture Notes in Electrical Engineering</i> , 2019, , 349-359.	0.4	2
13	Out-of-plane deformation and pull-in voltage of cantilevers with residual stress gradient: experiment and modelling. <i>Microsystem Technologies</i> , 2019, 25, 3581-3588.	2.0	9
14	Supervised machine learning scheme for electromyography-based pre-fall detection system. <i>Expert Systems With Applications</i> , 2018, 100, 95-105.	7.6	58
15	A Fall Detector Based on Ultra-Wideband Radar Sensing. <i>Lecture Notes in Electrical Engineering</i> , 2018, , 373-382.	0.4	3
16	Chromatographic analysis of VOC patterns in exhaled breath from smokers and nonsmokers. <i>Biomedical Chromatography</i> , 2018, 32, e4132.	1.7	36
17	HS-SPME-GC-MS metabolomics approach for sperm quality evaluation by semen volatile organic compounds (VOCs) analysis. <i>Biomedical Physics and Engineering Express</i> , 2018, 5, 015006.	1.2	21
18	100 nm-Gap Fingers Dielectrophoresis Functionalized MOX Gas Sensor Array for Low Temperature VOCs Detection. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	1

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19	Multi-sensor Platform for Detection of Anomalies in Human Sleep Patterns. Lecture Notes in Electrical Engineering, 2018, , 276-285.	0.4	2
20	Radar-Based Fall Detection Using Deep Machine Learning: System Configuration and Performance. Lecture Notes in Electrical Engineering, 2018, , 257-268.	0.4	0
21	Inorganic Photocatalytic Enhancement: Activated RhB Photodegradation by Surface Modification of SnO <sub>2</sub> Nanocrystals with V <sub>2</sub> O <sub>5</sub> -like species. Scientific Reports, 2017, 7, 44763.	3.3	17
22	Solvothermal Synthesis, Gas Sensing Properties, and Solar Cell-Aided Investigation of TiO <sub>2</sub> -MoO <sub>x</sub> Nanocrystals. ChemNanoMat, 2017, 3, 798-807.	2.8	2
23	A Radar-Based Smart Sensor for Unobtrusive Elderly Monitoring in Ambient Assisted Living Applications. Biosensors, 2017, 7, 55.	4.7	92
24	Influence of design and fabrication on RF performance of capacitive RF MEMS switches. Microsystem Technologies, 2016, 22, 1741-1746.	2.0	24
25	Acetone sensors based on TiO <sub>2</sub> nanocrystals modified with tungsten oxide species. Journal of Alloys and Compounds, 2016, 665, 345-351.	5.5	32
26	Experimental assessment of thermoelectric generator package properties: Simulated results validation and real gradient capabilities. Energy, 2015, 86, 300-310.	8.8	14
27	Heterogeneous sensor platform for circadian rhythm analysis. , 2015, , .		3
28	People occupancy detection and profiling with 3D depth sensors for building energy management. Energy and Buildings, 2015, 92, 246-266.	6.7	61
29	TiO <sub>2</sub> colloidal nanocrystals surface modification by V <sub>2</sub> O <sub>5</sub> species: Investigation by <sup>47</sup> Ti MAS-NMR and H <sub>2</sub> , CO and NO <sub>2</sub> sensing properties. Applied Surface Science, 2015, 351, 1169-1173.	6.1	18
30	On the electrostatic actuation of capacitive RF MEMS switches on GaAs substrate. Sensors and Actuators A: Physical, 2015, 232, 202-207.	4.1	29
31	An open NFC-based platform for vital signs monitoring. , 2015, , .		3
32	Surface modification, heterojunctions, and other structures: composing metal oxide nanocrystals for chemical sensors. Proceedings of SPIE, 2015, , .	0.8	0
33	Surface Modification of TiO <sub>2</sub> Nanocrystals by WO <sub>3</sub> Coating or Wrapping: Solvothermal Synthesis and Enhanced Surface Chemistry. ACS Applied Materials & Interfaces, 2015, 7, 6898-6908.	8.0	21
34	Improving holographic reconstruction by automatic Butterworth filtering for microelectromechanical systems characterization. Applied Optics, 2015, 54, 3428.	2.1	29
35	A 5.8-13 GHz SDR RF front-end for wireless sensors network robust to out-of-band interferers in 65nm CMOS. , 2015, , .		5
36	A flexible thermoelectric generator with a fully electrical, low startup voltage and high efficiency DC-DC converter. , 2015, , .		2

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37	Evidence of catalytic activation of anatase nanocrystals by vanadium oxide surface layer: Acetone and ethanol sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2015, 217, 193-197.	7.8	21
38	Aircraft Distributed Flow Turbulence Sensor Network with Embedded Flow Control Actuators. , 2014, , .		7
39	Open and low power near field communication-based platform in healthcare applications. , 2014, , .		0
40	Structural, Morphological, and Chemical Properties of Cu/TiN Versus Cu Thin Layers for HEMT Backside Metallization. <i>IEEE Transactions on Device and Materials Reliability</i> , 2014, 14, 890-897.	2.0	3
41	Automatic digital filtering for the accuracy improving of a digital holographic measurement system. <i>Proceedings of SPIE</i> , 2014, , .	0.8	1
42	A Virtual Trainer by Natural User Interface for Cognitive Rehabilitation in Dementia. <i>Lecture Notes in Computer Science</i> , 2014, , 300-309.	1.3	2
43	Solvothermal, Chloroalkoxide-based Synthesis of Monoclinic WO <sub>3</sub> Quantum Dots and Gas-Sensing Enhancement by Surface Oxygen Vacancies. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 16808-16816.	8.0	78
44	Soft chemistry routes to transparent metal oxide thin films. The case of sol-gel synthesis and structural characterization of Ta <sub>2</sub> O <sub>5</sub> thin films from tantalum chloromethoxide. <i>Thin Solid Films</i> , 2014, 555, 39-41.	1.8	10
45	In-home hierarchical posture classification with a time-of-flight 3D sensor. <i>Gait and Posture</i> , 2014, 39, 182-187.	1.4	16
46	Time-of-Flight Sensor-Based Platform for Posture Recognition in AAL Applications. <i>Lecture Notes in Electrical Engineering</i> , 2014, , 207-211.	0.4	0
47	Expert System for Wearable Fall Detector. , 2014, , 99-106.		0
48	PDMS/Kapton Interface Plasma Treatment Effects on the Polymeric Package for a Wearable Thermoelectric Generator. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 6586-6590.	8.0	43
49	Analytical characterisation of Negroamaro red wines by "Aroma Wheels". <i>Food Chemistry</i> , 2013, 141, 2906-2915.	8.2	65
50	Support Vector Machine for tri-axial accelerometer-based fall detector. , 2013, , .		8
51	Suppression of the NO <sub>2</sub> interference by chromium addition in WO <sub>3</sub> -based ammonia sensors. Investigation of the structural properties and of the related sensing pathways. <i>Sensors and Actuators B: Chemical</i> , 2013, 187, 308-312.	7.8	7
52	Supervised machine learning scheme for tri-axial accelerometer-based fall detector. , 2013, , .		2
53	Supervised wearable wireless system for fall detection. , 2013, , .		2
54	TOF Sensor Network for AAL Monitoring Services. <i>Procedia Computer Science</i> , 2013, 19, 511-515.	2.0	0

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55	Human posture recognition with a time-of-flight 3D sensor for in-home applications. Expert Systems With Applications, 2013, 40, 744-751.	7.6	32
56	Colloidal Counterpart of the TiO <sub>2</sub> -Supported V <sub>2</sub> O <sub>5</sub> System: A Case Study of Oxide-on-Oxide Deposition by Wet Chemical Techniques. Synthesis, Vanadium Speciation, and Gas-Sensing Enhancement. Journal of Physical Chemistry C, 2013, 117, 20697-20705.	3.1	34
57	Aroma analysis by GC/MS and electronic nose dedicated to Negroamaro and Primitivo typical Italian Apulian wines. Sensors and Actuators B: Chemical, 2013, 179, 259-269.	7.8	70
58	Supervised Expert System for Wearable MEMS Accelerometer-Based Fall Detector. Journal of Sensors, 2013, 2013, 1-11.	1.1	44
59	Context-Aware AAL Services through a 3D Sensor-Based Platform. Journal of Sensors, 2013, 2013, 1-10.	1.1	5
60	Reliability Enhancement by Suitable Actuation Waveforms for Capacitive RF MEMS Switches in III-V Technology. Journal of Microelectromechanical Systems, 2012, 21, 414-419.	2.5	21
61	A multi-feature scheme for posture recognition with 3D TOF sensor. , 2012, , .		1
62	Pt doping triggers growth of TiO <sub>2</sub> nanorods: nanocomposite synthesis and gas-sensing properties. CrystEngComm, 2012, 14, 3882.	2.6	26
63	Surface chemical functionalization of single walled carbon nanotubes with a bacteriorhodopsin mutant. Nanoscale, 2012, 4, 6434.	5.6	11
64	Capacitive RF MEMS Switches With Tantalum-Based Materials. Journal of Microelectromechanical Systems, 2011, 20, 365-370.	2.5	39
65	Performance of Machine Olfaction: Effect of Uniqueness of the Initial Data and Information Coding on the Discrimination Ability of Multisensor Arrays. IEEE Sensors Journal, 2011, 11, 649-656.	4.7	8
66	Geodesic-based human posture analysis by using a single 3D TOF camera. , 2011, , .		11
67	Topological and volumetric posture recognition with active vision sensor in AAL contexts. , 2011, , .		3
68	Development of capacitive RF MEMS switches with TaN and Ta <sub>2</sub> O <sub>5</sub> thin films. Proceedings of SPIE, 2011, , .	0.8	2
69	Two step, hydrolytic-solvothermal synthesis of redispersible titania nanocrystals and their gas-sensing properties. Journal of Sol-Gel Science and Technology, 2011, 60, 254-259.	2.4	9
70	Detecting falls with 3D range camera in ambient assisted living applications: A preliminary study. Medical Engineering and Physics, 2011, 33, 770-781.	1.7	69
71	From doping to phase transformation: Ammonia sensing performances of chloroalkoxide-derived WO <sub>3</sub> powders modified with chromium. Sensors and Actuators B: Chemical, 2010, 148, 200-206.	7.8	13
72	Morphological and structural characterization of WO <sub>3</sub> and Cr-doped WO <sub>3</sub> thin films synthesized by sol-gel process. Thin Solid Films, 2010, 518, 4512-4514.	1.8	4

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73	Ta <sub>2</sub> O <sub>5</sub> Thin Films for Capacitive RF MEMS Switches. Journal of Sensors, 2010, 2010, 1-5.	1.1	15
74	An automated active vision system for fall detection and posture analysis in Ambient Assisted Living applications. , 2010, , .		1
75	Reproducibility and Uniqueness of Information Coding as Key Factors For Array Optimization. , 2009, , .		1
76	Chloro-Alkoxide Route to Transition Metal Oxides. Synthesis of WO <sub>3</sub> Thin Films and Powders from a Tungsten Chloro-Methoxide. Chemistry of Materials, 2009, 21, 5215-5221.	6.7	39
77	The Chloroalkoxide Route to Transition Metal Oxides. Synthesis of V <sub>2</sub> O <sub>5</sub> Thin Films and Powders from a Vanadium Chloromethoxide. Chemistry of Materials, 2009, 21, 1618-1626.	6.7	12
78	Chemoresistive sensing of light alkanes with SnO <sub>2</sub> nanocrystals: a DFT-based insight. Physical Chemistry Chemical Physics, 2009, 11, 3634.	2.8	10
79	Metal oxide gas sensor array for the detection of diesel fuel in engine oil. Sensors and Actuators B: Chemical, 2008, 131, 125-133.	7.8	34
80	Chemical synthesis of In <sub>2</sub> O <sub>3</sub> nanocrystals and their application in highly performing ozone-sensing devices. Sensors and Actuators B: Chemical, 2008, 130, 483-487.	7.8	34
81	TiO <sub>2</sub> thin films from titanium butoxide: Synthesis, Pt addition, structural stability, microelectronic processing and gas-sensing properties. Sensors and Actuators B: Chemical, 2008, 130, 599-608.	7.8	61
82	The hydrolytic route to Co-porphyrin-doped SnO <sub>2</sub> gas-sensing materials. Inorganica Chimica Acta, 2008, 361, 79-85.	2.4	9
83	Use of a toasted durum whole meal in the production of a traditional Italian pasta: chemical, mechanical, sensory and image analyses. International Journal of Food Science and Technology, 2008, 43, 1610-1618.	2.7	12
84	Synthesis and Gas-Sensing Properties of Pd-Doped SnO <sub>2</sub> Nanocrystals. A Case Study of a General Methodology for Doping Metal Oxide Nanocrystals. Crystal Growth and Design, 2008, 8, 1774-1778.	3.0	69
85	The Role of Surface Oxygen Vacancies in the NO <sub>2</sub> Sensing Properties of SnO <sub>2</sub> Nanocrystals. Journal of Physical Chemistry C, 2008, 112, 19540-19546.	3.1	181
86	A miniaturized gas-chromatographic system for the evaluation of fish freshness. , 2008, , .		2
87	Application of a gas sensors array to the detection of fuel as contamination defect in engine oil. , 2008, , .		4
88	The role of oxygen vacancies in the sensing properties of SnO <sub>2</sub> nanocrystals. , 2008, , .		1
89	A CMOS 2D Micro-Fluxgate Earth Magnetic Field Sensor with Digital Output. , 2007, , .		5
90	Silicon substrate microelectrodes voltammetry performances in white wine faults identification and quantification. , 2007, , .		0

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91	Detection of unburned fuel as contaminant in engine oil by a gas microsensor array. , 2007, , .		0
92	Nanocrystals as Very Active Interfaces:â€‰% Ultrasensitive Room-Temperature Ozone Sensors with In <sub>2</sub> O <sub>3</sub> Nanocrystals Prepared by a Low-Temperature Solâˆ“Gel Process in a Coordinating Environment. Journal of Physical Chemistry C, 2007, 111, 13967-13971.	3.1	38
93	Recovery of drifting sensor responses by means of DWT analysis. Sensors and Actuators B: Chemical, 2007, 120, 411-416.	7.8	30
94	Oxide nanocrystals from a low-temperature, self-limiting solâˆ“gel transition in a coordinating environment: Nanocrystal synthesis, processing of gas-sensing devices and application to organic compounds. Sensors and Actuators B: Chemical, 2007, 126, 163-167.	7.8	7
95	Structural distinctions of Fe <sub>2</sub> O <sub>3</sub> âˆ“In <sub>2</sub> O <sub>3</sub> composites obtained by various solâˆ“gel procedures, and their gas-sensing features. Sensors and Actuators B: Chemical, 2007, 124, 133-142.	7.8	39
96	SnO <sub>2</sub> thin films from metalorganic precursors: Synthesis, characterization, microelectronic processing and gas-sensing properties. Sensors and Actuators B: Chemical, 2007, 124, 217-226.	7.8	19
97	Synthesis, electrical characterization, and gas sensing properties of molybdenum oxide nanorods. Applied Physics Letters, 2006, 88, 152111.	3.3	120
98	Gas-Sensor Interface Circuit Based on Calibration Free Novel Frequency Measurement Approach with 16-Bit Digital Output. , 2006, , .		0
99	Solution Synthesis of Thin Films in the SnO <sub>2</sub> âˆ“In <sub>2</sub> O <sub>3</sub> System: A Case Study of the Mixing of Solâˆ“Gel and Metal-Organic Solution Processes. Chemistry of Materials, 2006, 18, 840-846.	6.7	40
100	Nanostructured In <sub>2</sub> O <sub>3</sub> âˆ“SnO <sub>2</sub> solâˆ“gel thin film as material for NO <sub>2</sub> detection. Sensors and Actuators B: Chemical, 2006, 114, 646-655.	7.8	126
101	Influence of electrodes ageing on the properties of the gas sensors based on SnO <sub>2</sub> . Sensors and Actuators B: Chemical, 2006, 115, 396-402.	7.8	20
102	IEEE1451.4: A way to standardize gas sensor. Sensors and Actuators B: Chemical, 2006, 114, 141-151.	7.8	45
103	Oxide nanopowders from the low-temperature processing of metal oxide sols and their application as gas-sensing materials. Sensors and Actuators B: Chemical, 2006, 118, 105-109.	7.8	26
104	A novel method based on gas microsensors to analyze diesel engine oil contaminated by diluent unburned diesel fuel. , 2006, , .		0
105	Design of an Electronic Nose for Selective Phosphine Detection in Cereals. Sensor Letters, 2006, 4, 229-234.	0.4	5
106	<title>Microhotplate-based silicon gas sensor arrays with linear temperature gradient for wine quality monitoring</title>. , 2005, , .		3
107	<title>Cheap silicon technology integrated sol-gel combustion sensor</title>. , 2005, 5836, 255.		0
108	Synthesis of SnO <sub>2</sub> and ZnO Colloidal Nanocrystals from the Decomposition of Tin(II) 2-Ethylhexanoate and Zinc(II) 2-Ethylhexanoate. Chemistry of Materials, 2005, 17, 6468-6472.	6.7	65

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109	Spin-coated thin films of different metal phthalocyanines and porphyrin-phthalocyanine blend for optochemical sensors of volatile organic compounds. , 2004, , .		1
110	Drift counteraction with multiple self-organising maps for an electronic nose. Sensors and Actuators B: Chemical, 2004, 98, 305-317.	7.8	101
111	Preparation and characterization of cobalt porphyrin modified tin dioxide films for sensor applications. Sensors and Actuators B: Chemical, 2004, 103, 339-343.	7.8	67
112	Ambient Pressure Synthesis of Corundum-Type $\text{In}_2\text{O}_3$ .. ChemInform, 2004, 35, no.	0.0	0
113	Titanium dioxide thin films prepared by seeded supersonic beams for gas sensing applications. Sensors and Actuators B: Chemical, 2004, 100, 177-184.	7.8	24
114	Ambient Pressure Synthesis of Corundum-Type $\text{In}_2\text{O}_3$ . Journal of the American Chemical Society, 2004, 126, 4078-4079.	13.7	108
115	Synthesis and Characterization of $\text{MoO}_3$ Thin Films and Powders from a Molybdenum Chloromethoxide. Chemistry of Materials, 2004, 16, 5495-5501.	6.7	50
116	Support vector machines for olfactory signals recognition. Sensors and Actuators B: Chemical, 2003, 88, 30-39.	7.8	115
117	$\text{CH}_3\text{SH}$ -sensing characteristics of $\text{LaFeO}_3$ thick-film prepared by co-precipitation method. Sensors and Actuators B: Chemical, 2003, 94, 197-200.	7.8	25
118	Polycrystalline Well-Shaped Blocks of Indium Oxide Obtained by the SolâGel Method and Their Gas-Sensing Properties. Chemistry of Materials, 2003, 15, 4377-4383.	6.7	116
119	On the study of feature extraction methods for an electronic nose. Sensors and Actuators B: Chemical, 2002, 87, 274-288.	7.8	160
120	Comparison and integration of arrays of quartz resonators and metal-oxide semiconductor chemoresistors in the quality evaluation of olive oils. Sensors and Actuators B: Chemical, 2001, 78, 303-309.	7.8	34
121	$\text{SnO}_2$ solâgel derived thin films for integrated gas sensors. Sensors and Actuators B: Chemical, 2001, 77, 496-502.	7.8	39
122	SolâGel Processing and Characterization of Pure and MetalâDoped $\text{SnO}_{2\text{}}$ Thin Films. Journal of the American Ceramic Society, 2001, 84, 48-54.	3.8	57
123	<title>Investigation of $\text{MoO}_3\text{-WO}_3$ thin film microstructure for gas sensing applications</title>. , 2001, 4590, 243.		0
124	Odor discrimination using adaptive resonance theory. Sensors and Actuators B: Chemical, 2000, 69, 248-252.	7.8	27
125	Preparation, characterisation and applications of thin films for gas sensors prepared by cheap chemical method. Sensors and Actuators B: Chemical, 2000, 70, 153-164.	7.8	111
126	Compositional and optical characterization of rf sputter deposited $\text{TeO}_x$ thin films for optical disk application. Vacuum, 1992, 43, 305-308.	3.5	8