

Julian W Gardner

List of Publications by Year in descending order

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342
papers

9,567
citations

34076

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87
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415
all docs

415
docs citations

415
times ranked

6622
citing authors

#	ARTICLE	IF	CITATIONS
1	A brief history of electronic noses. <i>Sensors and Actuators B: Chemical</i> , 1994, 18, 210-211.	4.0	773
2	Gas identification by modulating temperatures of SnO ₂ -based thick film sensors. <i>Sensors and Actuators B: Chemical</i> , 1997, 43, 45-51.	4.0	298
3	Detection of vapours and odours from a multisensor array using pattern recognition Part 1. Principal component and cluster analysis. <i>Sensors and Actuators B: Chemical</i> , 1991, 4, 109-115.	4.0	294
4	Electronic nose for monitoring the flavour of beers. <i>Analyst, The</i> , 1993, 118, 371.	1.7	210
5	An electronic nose system to diagnose illness. <i>Sensors and Actuators B: Chemical</i> , 2000, 70, 19-24.	4.0	198
6	Application of an electronic nose to the discrimination of coffees. <i>Sensors and Actuators B: Chemical</i> , 1992, 6, 71-75.	4.0	186
7	Tea quality prediction using a tin oxide-based electronic nose: an artificial intelligence approach. <i>Sensors and Actuators B: Chemical</i> , 2003, 94, 228-237.	4.0	175
8	CMOS Interfacing for Integrated Gas Sensors: A Review. <i>IEEE Sensors Journal</i> , 2010, 10, 1833-1848.	2.4	175
9	The prediction of bacteria type and culture growth phase by an electronic nose with a multi-layer perceptron network. <i>Measurement Science and Technology</i> , 1998, 9, 120-127.	1.4	174
10	Ultrasensitive WO ₃ gas sensors for NO ₂ detection in air and low oxygen environment. <i>Sensors and Actuators B: Chemical</i> , 2017, 239, 1051-1059.	4.0	165
11	Application of artificial neural networks to an electronic olfactory system. <i>Measurement Science and Technology</i> , 1990, 1, 446-451.	1.4	146
12	Odour discrimination with an electronic nose. <i>Sensors and Actuators B: Chemical</i> , 1992, 8, 1-11.	4.0	145
13	Non-destructive banana ripeness determination using a neural network-based electronic nose. <i>Measurement Science and Technology</i> , 1999, 10, 538-548.	1.4	136
14	Tungsten-Based SOI Microhotplates for Smart Gas Sensors. <i>Journal of Microelectromechanical Systems</i> , 2008, 17, 1408-1417.	1.7	130
15	Bacteria classification using Cyranose 320 electronic nose. <i>BioMedical Engineering OnLine</i> , 2002, 1, 4.	1.3	127
16	CMOS integration of inkjet-printed graphene for humidity sensing. <i>Scientific Reports</i> , 2015, 5, 17374.	1.6	124
17	Analog VLSI Circuit Implementation of an Adaptive Neuromorphic Olfaction Chip. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2007, 54, 60-73.	0.1	122
18	Electronic noses – development and future prospects. <i>TrAC - Trends in Analytical Chemistry</i> , 1996, 15, 486-493.	5.8	113

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19	Electronic nose based tea quality standardization. <i>Neural Networks</i> , 2003, 16, 847-853.	3.3	113
20	A non-linear diffusion-reaction model of electrical conduction in semiconductor gas sensors. <i>Sensors and Actuators B: Chemical</i> , 1990, 1, 166-170.	4.0	108
21	Detection of vapours and odours from a multisensor array using pattern-recognition techniques Part 2. Artificial neural networks. <i>Sensors and Actuators B: Chemical</i> , 1992, 9, 9-15.	4.0	105
22	Design and simulations of SOI CMOS micro-hotplate gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2001, 78, 180-190.	4.0	105
23	A polymer gate FET sensor array for detecting organic vapours. <i>Sensors and Actuators B: Chemical</i> , 2001, 77, 155-162.	4.0	103
24	ZnO nanowires grown on SOI CMOS substrate for ethanol sensing. <i>Sensors and Actuators B: Chemical</i> , 2010, 146, 559-565.	4.0	101
25	Thermal modelling and characterisation of micropower chemoresistive silicon sensors. <i>Sensors and Actuators B: Chemical</i> , 1997, 45, 19-26.	4.0	100
26	Intelligent vapour discrimination using a composite 12-element sensor array. <i>Sensors and Actuators B: Chemical</i> , 1990, 1, 256-260.	4.0	97
27	Enhancing electronic nose performance by sensor selection using a new integer-based genetic algorithm approach. <i>Sensors and Actuators B: Chemical</i> , 2005, 106, 114-121.	4.0	96
28	Fuzzy neural computing of coffee and tainted-water data from an electronic nose. <i>Sensors and Actuators B: Chemical</i> , 1996, 30, 185-190.	4.0	95
29	Fuzzy ARTMAP based electronic nose data analysis. <i>Sensors and Actuators B: Chemical</i> , 1999, 61, 183-190.	4.0	94
30	Integrated array sensor for detecting organic solvents. <i>Sensors and Actuators B: Chemical</i> , 1995, 26, 135-139.	4.0	89
31	The application of discrimination technique to alcohols and tobaccos using tin-oxide sensors. <i>Sensors and Actuators</i> , 1989, 18, 361-371.	1.8	88
32	Novel design and characterisation of SOI CMOS micro-hotplates for high temperature gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2007, 127, 260-266.	4.0	88
33	Application of conducting polymer technology in microsystems. <i>Sensors and Actuators A: Physical</i> , 1995, 51, 57-66.	2.0	85
34	An electronic nose system for monitoring the quality of potable water. <i>Sensors and Actuators B: Chemical</i> , 2000, 69, 336-341.	4.0	84
35	Design and optimisation of a high-temperature silicon micro-hotplate for nanoporous palladium pellistors. <i>Microelectronics Journal</i> , 2003, 34, 115-126.	1.1	84
36	Non-destructive egg freshness determination: an electronic nose based approach. <i>Measurement Science and Technology</i> , 2003, 14, 190-198.	1.4	84

#	ARTICLE	IF	CITATIONS
37	Identification of Staphylococcus aureus infections in hospital environment: electronic nose based approach. Sensors and Actuators B: Chemical, 2005, 109, 355-362.	4.0	79
38	A multisensor system for beer flavour monitoring using an array of conducting polymers and predictive classifiers. Sensors and Actuators B: Chemical, 1994, 18, 240-243.	4.0	78
39	Wavelet transform and fuzzy ARTMAP-based pattern recognition for fast gas identification using a micro-hotplate gas sensor. Sensors and Actuators B: Chemical, 2002, 83, 238-244.	4.0	75
40	Miniature taste sensing system based on dual SH-SAW sensor device: an electronic tongue. Sensors and Actuators B: Chemical, 2004, 103, 233-239.	4.0	75
41	Potential disorder in granular metal systems: the field effect in discontinuous metal films. Journal of Physics C: Solid State Physics, 1984, 17, 4633-4644.	1.5	74
42	Identification of paper quality using a hybrid electronic nose. Sensors and Actuators B: Chemical, 1995, 27, 246-249.	4.0	73
43	Gas sensing through thick film technology. Sensors and Actuators B: Chemical, 2002, 84, 72-77.	4.0	72
44	Air Pollution Monitoring Using Near Room Temperature Resistive Gas Sensors: A Review. IEEE Transactions on Electron Devices, 2019, 66, 3254-3264.	1.6	70
45	Performance definition and standardization of electronic noses. Sensors and Actuators B: Chemical, 1996, 33, 60-67.	4.0	69
46	Combined electronic nose and tongue for a flavour sensing system. Sensors and Actuators B: Chemical, 2011, 156, 832-839.	4.0	69
47	Temperature-modulated graphene oxide resistive humidity sensor for indoor air quality monitoring. Nanoscale, 2016, 8, 4565-4572.	2.8	69
48	Micro-gas-sensor with conducting polymers. Sensors and Actuators B: Chemical, 2002, 84, 66-71.	4.0	66
49	A diffusion-reaction model of electrical conduction in tin oxide gas sensors. Semiconductor Science and Technology, 1989, 4, 345-350.	1.0	65
50	Integrated tin oxide odour sensors. Sensors and Actuators B: Chemical, 1991, 4, 117-121.	4.0	64
51	Towards a biosynthetic infochemical communication system. Procedia Chemistry, 2009, 1, 305-308.	0.7	64
52	Liquid and gas micro-calorimeters for (bio)chemical measurements. Sensors and Actuators A: Physical, 1994, 43, 24-30.	2.0	63
53	A laterally driven micromachined resonant pressure sensor. Sensors and Actuators A: Physical, 1996, 52, 86-91.	2.0	54
54	Effect of electrode geometry on gas sensitivity of lead phthalocyanine thin films. Sensors and Actuators B: Chemical, 1992, 9, 133-142.	4.0	53

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55	Neural network based electronic nose for apple ripeness determination. Electronics Letters, 1999, 35, 821.	0.5	50
56	Clinical evaluation of the electronic nose in the diagnosis of ear, nose and throat infection: a preliminary study. Journal of Laryngology and Otology, 2004, 118, 706-9.	0.4	50
57	A multi-electrode probe for parallel imaging in scanning electrochemical microscopy. Electrochemistry Communications, 2004, 6, 91-97.	2.3	49
58	Mask-less deposition of Au@SnO ₂ nanocomposites on CMOS MEMS platform for ethanol detection. Nanotechnology, 2016, 27, 125502.	1.3	49
59	Response model for thermally modulated tin oxide-based microhotplate gas sensors. Sensors and Actuators B: Chemical, 2003, 95, 203-211.	4.0	48
60	Dip pen nanolithography-deposited zinc oxide nanorods on a CMOS MEMS platform for ethanol sensing. RSC Advances, 2015, 5, 47609-47616.	1.7	48
61	Integrated arrays of gas sensors using conducting polymers with molecular sieves. Sensors and Actuators B: Chemical, 1991, 4, 29-33.	4.0	47
62	Design of conducting polymer gas sensors: Modelling and experiment. Synthetic Metals, 1993, 57, 3665-3670.	2.1	47
63	Preliminary Investigation of Breath Sampling as a Monitor of Health in Dairy Cattle. Biosystems Engineering, 1997, 67, 267-275.	0.4	46
64	A modified multilayer perceptron model for gas mixture analysis. Sensors and Actuators B: Chemical, 1993, 16, 344-348.	4.0	45
65	Modelling of gas-sensitive conducting polymer devices. IET Circuits, Devices and Systems, 1995, 142, 321.	0.6	44
66	Classification of bacteria responsible for ENT and eye infections using the Cyranose system. IEEE Sensors Journal, 2002, 2, 247-253.	2.4	44
67	Neural network based electronic nose for classification of tea aroma. Sensing and Instrumentation for Food Quality and Safety, 2008, 2, 7-14.	1.5	43
68	A film bulk acoustic resonator oscillator based humidity sensor with graphene oxide as the sensitive layer. Journal of Micromechanics and Microengineering, 2017, 27, 055017.	1.5	42
69	An electronic nose employing dual-channel odour separation columns with large chemosensor arrays for advanced odour discrimination. Sensors and Actuators B: Chemical, 2009, 141, 134-140.	4.0	40
70	Electrical conduction in solid-state gas sensors. Sensors and Actuators, 1989, 18, 373-387.	1.8	39
71	GasFETs incorporating conducting polymers as gate materials. Sensors and Actuators B: Chemical, 2000, 65, 253-256.	4.0	39
72	High frequency surface acoustic wave resonator-based sensor for particulate matter detection. Sensors and Actuators A: Physical, 2016, 244, 138-145.	2.0	35

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73	Taste sensors utilizing high-frequency SH-SAW devices. <i>Sensors and Actuators B: Chemical</i> , 2006, 118, 349-355.	4.0	34
74	Diffusion and binding of molecules to sites within homogeneous thin films. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1996, 354, 35-57.	1.6	32
75	Smart City Battery Operated IoT Based Indoor Air Quality Monitoring System. , 2020, , .		31
76	Integrated tin oxide sensors of low power consumption for use in gas and odour sensing. <i>Sensors and Actuators B: Chemical</i> , 1993, 15, 32-37.	4.0	30
77	Conducting polymer films by UV-photo processing. <i>Sensors and Actuators A: Physical</i> , 2002, 99, 74-77.	2.0	28
78	Post-CMOS wafer level growth of carbon nanotubes for low-cost microsensors—a proof of concept. <i>Nanotechnology</i> , 2010, 21, 485301.	1.3	27
79	Potential applications of electropolymerized thin organic films in nanotechnology. <i>Nanotechnology</i> , 1991, 2, 19-32.	1.3	26
80	High-precision intelligent interface for a hybrid electronic nose. <i>Sensors and Actuators A: Physical</i> , 1997, 62, 724-728.	2.0	26
81	Response of a poly(pyrrole) resistive micro-bridge to ethanol vapour. <i>Sensors and Actuators B: Chemical</i> , 1998, 48, 289-295.	4.0	26
82	Development of Smart Tongue Devices for Measurement of Liquid Properties. <i>IEEE Sensors Journal</i> , 2004, 4, 543-550.	2.4	26
83	Enhanced spectroscopic gas sensors using <i>in-situ</i> grown carbon nanotubes. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	26
84	Optimising Deep Learning at the Edge for Accurate Hourly Air Quality Prediction. <i>Sensors</i> , 2021, 21, 1064.	2.1	26
85	Effect of micro-electrode geometry on response of thin-film poly(pyrrole) and poly(aniline) chemoresistive sensors. <i>Sensors and Actuators B: Chemical</i> , 1999, 57, 17-27.	4.0	25
86	Drift Compensation, Standards, and Calibration Methods. , 0, , 325-346.		24
87	Towards a truly biomimetic olfactory microsystem: an artificial olfactory mucosa. <i>IET Nanobiotechnology</i> , 2007, 1, 15.	1.9	24
88	Surface acoustic wave electronic tongue for robust analysis of sensory components. <i>Sensors and Actuators B: Chemical</i> , 2015, 207, 1147-1153.	4.0	24
89	Electronic Noses for Well-Being: Breath Analysis and Energy Expenditure. <i>Sensors</i> , 2016, 16, 947.	2.1	24
90	An artificial neural emulator for an odour sensor array. <i>Sensors and Actuators B: Chemical</i> , 1994, 19, 661-664.	4.0	23

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91	Prediction of health of dairy cattle from breath samples using neural network with parametric model of dynamic response of array of semiconducting gas sensors. IET Science, Measurement and Technology, 1999, 146, 102.	0.7	23
92	CMOS temperature sensors - concepts, state-of-the-art and prospects. , 2008, , .		23
93	Graphene-coated Rayleigh SAW Resonators for NO2 Detection. Procedia Engineering, 2014, 87, 999-1002.	1.2	23
94	Particle Sensor Using Solidly Mounted Resonators. IEEE Sensors Journal, 2016, 16, 2282-2289.	2.4	23
95	Pattern Recognition in Odour Sensing. , 1992, , 161-179.		23
96	Polymeric resistive bridge gas sensor array driven by a standard cell CMOS current drive chip. Sensors and Actuators B: Chemical, 1999, 58, 518-525.	4.0	22
97	Investigations on an electronic tongue with polymer microfluidic cell for liquid sensing and identification. Smart Materials and Structures, 2005, 14, 1010-1016.	1.8	22
98	SOI CMOS-Based Smart Gas Sensor System for Ubiquitous Sensor Networks. ETRI Journal, 2008, 30, 516-525.	1.2	22
99	MEMS Thermal Flow Sensors” An Accuracy Investigation. IEEE Sensors Journal, 2019, 19, 2991-2998.	2.4	22
100	Intelligent gas sensing using an integrated sensor pair. Sensors and Actuators B: Chemical, 1995, 27, 261-266.	4.0	21
101	Portable e-Mucosa System: Mimicking the biological olfactory. Procedia Chemistry, 2009, 1, 991-994.	0.7	21
102	Odour Sensors for an Electronic Nose. , 1992, , 31-51.		21
103	FireNose on Mobile Robot in Harsh Environments. IEEE Sensors Journal, 2019, 19, 12418-12431.	2.4	20
104	Investigation of the response of high-bandwidth MOX sensors to gas plumes for application on a mobile robot in hazardous environments. Sensors and Actuators B: Chemical, 2019, 279, 351-360.	4.0	20
105	System identification of electronic nose data from cyanobacteria experiments. IEEE Sensors Journal, 2002, 2, 218-229.	2.4	19
106	Towards an artificial olfactory mucosa for improved odour classification. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 1713-1728.	1.0	19
107	Electrochemical deposition of conducting polymers onto electronic substrates for sensor applications. Sensors and Actuators A: Physical, 1990, 23, 911-914.	2.0	18
108	Identification of CO and NO2 using a thermally resistive microsensor and support vector machine. IET Science, Measurement and Technology, 2003, 150, 11.	0.7	18

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109	Design and simulation of a smart ratiometric ASIC chip for VOC monitoring. Sensors and Actuators B: Chemical, 2003, 95, 232-243.	4.0	18
110	Design and modelling of solidly mounted resonators for low-cost particle sensing. Measurement Science and Technology, 2016, 27, 025101.	1.4	18
111	The Design of an Artificial Olfactory System. , 1990, , 131-173.		18
112	Surface characterisation of electro-active thin polymeric film bearings. International Journal of Machine Tools and Manufacture, 1998, 38, 669-675.	6.2	17
113	Pattern Analysis for Electronic Noses. , 0, , 133-160.		17
114	Design and simulation of resistive SOI CMOS micro-heaters for high temperature gas sensors. Journal of Physics: Conference Series, 2005, 15, 27-32.	0.3	17
115	Identification of Different Vapors Using a Single Temperature Modulated Polymer Sensor With a Novel Signal Processing Technique. IEEE Sensors Journal, 2009, 9, 314-328.	2.4	17
116	Chemical Sensor Array Optimization: Geometric and Information Theoretic Approaches. , 0, , 347-375.		16
117	Multi-field simulations and characterization of CMOS-MEMS high-temperature smart gas sensors based on SOI technology. Journal of Micromechanics and Microengineering, 2008, 18, 075010.	1.5	16
118	Novel Convolution-Based Signal Processing Techniques for an Artificial Olfactory Mucosa. IEEE Sensors Journal, 2009, 9, 929-935.	2.4	16
119	Surface acoustic wave based analytical system for the detection of liquid detergents. Sensors and Actuators B: Chemical, 2012, 171-172, 469-477.	4.0	16
120	A CMOS-MEMS Thermopile with an Integrated Temperature Sensing Diode for Mid-IR Thermometry. Procedia Engineering, 2014, 87, 1127-1130.	1.2	16
121	Introduction to Chemosensors. , 0, , 79-104.		15
122	Data reduction in headspace analysis of blood and urine samples for robust bacterial identification. Computer Methods and Programs in Biomedicine, 2005, 79, 259-271.	2.6	15
123	H ₂ S Sensing in Dry and Humid H ₂ Environment With p-Type CuO Thick-Film Gas Sensors. IEEE Sensors Journal, 2018, 18, 3502-3508.	2.4	15
124	Real-Time Thermal Modulation of High Bandwidth MOX Gas Sensors for Mobile Robot Applications. Sensors, 2019, 19, 1180.	2.1	15
125	Properties of metal/poly(N-methylpyrrole) Schottky barriers. Journal of Physics Condensed Matter, 1989, 1, SB133-SB138.	0.7	14
126	Signal Conditioning and Preprocessing. , 0, , 105-132.		14

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127	Introduction to Olfaction: Perception, Anatomy, Physiology, and Molecular Biology. , 0, , 1-31.		14
128	Parametric model of a polymeric chemoresistor for use in smart sensor design and simulation. Microelectronics Journal, 2003, 34, 865-875.	1.1	14
129	Biomimetic insect infochemical communication system. , 2009, , .		14
130	Mimicking the biological olfactory system: a Portable electronic Mucosa. IET Nanobiotechnology, 2012, 6, 45.	1.9	14
131	Mobile robot multi-sensor unit for unsupervised gas discrimination in uncontrolled environments. , 2017, , .		14
132	SOI diode temperature sensor operated at ultra high temperatures - a critical analysis. , 2008, , .		13
133	Identification and quantification of different vapours using a single polymer chemoresistor and the novel dual transient temperature modulation technique. Sensors and Actuators B: Chemical, 2009, 141, 370-380.	4.0	13
134	Electronic nose simulation tool centred on PSpice. Sensors and Actuators B: Chemical, 2001, 76, 419-429.	4.0	12
135	Classification of Ear, Nose, and Throat Bacteria Using a Neural-Network-Based Electronic Nose. MRS Bulletin, 2004, 29, 709-713.	1.7	12
136	High Temperature SQI CMOS Tungsten Micro-Heaters. , 2006, , .		12
137	Three technologies for a smart miniaturized gas-sensor: SOI CMOS, micromachining, and CNTs - challenges and performance. , 2007, , .		12
138	Rapid processing of chemosensor transients in a neuromorphic implementation of the insect macroglomerular complex. Frontiers in Neuroscience, 2013, 7, 119.	1.4	12
139	Multi-sensor module for a mobile robot operating in harsh environments. , 2016, , .		12
140	Island charging energies and random potentials in discontinuous metal films. Journal of Physics C: Solid State Physics, 1985, 18, 6523-6534.	1.5	11
141	Odour detection using sensor arrays. Analytical Proceedings, 1991, 28, 339.	0.4	11
142	SPICE model for resistive gas and odour sensors. IET Circuits, Devices and Systems, 1999, 146, 101.	0.6	11
143	Conductive polymer gate FET devices for vapour sensing. IET Circuits, Devices and Systems, 2004, 151, 326.	0.6	11
144	Cell-based surface acoustic wave resonant microsensor for biomolecular agent detection. , 2011, , .		11

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145	Identification of H ₂ S Impurity in Hydrogen Using Temperature Modulated Metal Oxide Resistive Sensors with a Novel Signal Processing Technique. , 2017, 1, 1-4.		11
146	A highly stable, nanotube-enhanced, CMOS-MEMS thermal emitter for mid-IR gas sensing. Scientific Reports, 2021, 11, 22915.	1.6	11
147	Velocity-optimized diffusion for ultra-fast polymer-based resistive gas sensors. IET Science, Measurement and Technology, 2006, 153, 94-100.	0.7	10
148	Plasmonic enhanced CMOS non-dispersive infrared gas sensor for acetone and ammonia detection. , 2018, , .		10
149	Tribological properties of electroactive polymeric thin film bearings. Wear, 1993, 169, 43-57.	1.5	9
150	Measurements of tribological properties of poly(pyrrole) thin film bearings. Tribology International, 1998, 31, 313-323.	3.0	9
151	A preliminary study of conducting polymers as microvalve seals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 355, 62-67.	2.6	9
152	Zinc Oxide Nanowire Based Hydrogen Sensor On SOI CMOS Platform. Procedia Engineering, 2011, 25, 1473-1476.	1.2	9
153	Design and Implementation of a Modular Biomimetic Infochemical Communication System. International Journal of Circuit Theory and Applications, 2013, 41, 653-667.	1.3	9
154	Complex sensor systems: odour detection by the sense of smell and by electronic noses. Biochemical Society Transactions, 1991, 19, 36-39.	1.6	8
155	Electronic properties of metal-poly(pyrrole) junctions. International Journal of Electronics, 1994, 77, 173-184.	0.9	8
156	Design of a silicon microsensor array device for gas analysis. Microelectronics Journal, 1996, 27, 449-457.	1.1	8
157	Odor Handling and Delivery Systems. , 0, , 55-78.		8
158	Spatio-temporal information in an artificial olfactory mucosa. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 1057-1077.	1.0	8
159	SOI sensing technologies for harsh environment. , 2012, , .		8
160	1/f noise and its unusual high-frequency deactivation at high biasing currents in carbon black polymers with residual 1/f ³ (f ³ =2.2) noise and a preliminary estimation of the average trap energy. Sensors and Actuators B: Chemical, 2012, 174, 577-585.	4.0	8
161	Ambient Temperature Carbon Nanotube Ammonia Sensor on CMOS Platform. Procedia Engineering, 2014, 87, 224-227.	1.2	8
162	Design and Modelling of a Portable Breath Analyser for Metabolic Rate Measurement. Procedia Engineering, 2014, 87, 668-671.	1.2	8

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163	Biosynthetic infochemical communication. <i>Bioinspiration and Biomimetics</i> , 2015, 10, 043001.	1.5	8
164	Estimation of missing air pollutant data using a spatiotemporal convolutional autoencoder. <i>Neural Computing and Applications</i> , 2022, 34, 16129-16154.	3.2	8
165	Olfactory Feature Maps from an Electronic Nose. <i>Measurement and Control</i> , 1997, 30, 262-268.	0.9	7
166	Strategies for Mimicking Olfaction: The Next Generation of Electronic Noses?. <i>Sensors Update</i> , 1998, 3, 61-130.	0.5	7
167	SQL-CMOS based single crystal silicon micro-heaters for gas sensors. , 2006, , .		7
168	Ratiometric info-chemical communication system based on polymer-coated surface acoustic wave microsensors. <i>Sensors and Actuators B: Chemical</i> , 2012, 173, 547-554.	4.0	7
169	Ratiometric Decoding of Pheromones for a Biomimetic Infochemical Communication System. <i>Sensors</i> , 2017, 17, 2489.	2.1	7
170	Holographic visualisation of a combustion flame. <i>Optics and Lasers in Engineering</i> , 1988, 9, 85-100.	2.0	6
171	Integrated Sensor Arrays for the Dynamic Measurement of Food Flavour Release. <i>Measurement and Control</i> , 1997, 30, 273-279.	0.9	6
172	Identification of bacterial pathogens using quadrupole mass spectrometer data and radial basis function neural networks. <i>IET Science, Measurement and Technology</i> , 2005, 152, 97-102.	0.7	6
173	Detergents sensing system based on SH-SAW devices. <i>Procedia Engineering</i> , 2011, 25, 1125-1128.	1.2	6
174	Ratiometric Chemical Blend Processing with a Neuromorphic Model of the Insect Macroglomerular Complex. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	6
175	A novel biomimetic infochemical communication technology: From insects to robots. , 2012, , .		6
176	Dual high-frequency Surface Acoustic Wave Resonator for ultrafine particle sensing. , 2013, , .		6
177	Application of holographic interferometry to the vibrational analysis of the harpsichord. <i>Optics and Laser Technology</i> , 1988, 20, 199-204.	2.2	5
178	Environmental Monitoring. , 0, , 419-444.		5
179	Hand-Held and Palm-Top Chemical Microsensor Systems for Gas Analysis. , 0, , 201-229.		5
180	Silicon-based Neuromorphic Implementation of the Olfactory Pathway. , 0, , .		5

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181	Challenges of Biomimetic Infochemical Communication. <i>Procedia Computer Science</i> , 2011, 7, 106-109.	1.2	5
182	A low-cost acoustic microsensor based system in package for air quality monitoring. , 2016, , .		5
183	AlN FBAR Particle Sensor With a Thermophoretic Sampling Mechanism. <i>IEEE Sensors Journal</i> , 2021, 21, 19427-19435.	2.4	5
184	Non-Invasive Cardiovascular Hemodynamic Measurements. , 0, , 107-160.		5
185	Applying Convolution-Based Processing Methods To A Dual-Channel, Large Array Artificial Olfactory Mucosa. , 2009, , .		4
186	CMOS Alcohol Sensor Employing ZnO Nanowire Sensing Films. , 2009, , .		4
187	Nanowire hydrogen gas sensor employing CMOS micro-hotplate. , 2009, , .		4
188	Guest Editorial - Special issue on machine olfaction. <i>IEEE Sensors Journal</i> , 2012, 12, 3105-3107.	2.4	4
189	SOI CMOS MEMS Infra-red Thermal Source with Carbon Nanotubes Coating. <i>Procedia Engineering</i> , 2014, 87, 839-842.	1.2	4
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