

Krishna C Persaud

List of Publications by Year in descending order

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131
papers

5,269
citations

109321

35
h-index

91884

69
g-index

136
all docs

136
docs citations

136
times ranked

4814
citing authors

#	ARTICLE	IF	CITATIONS
1	Odorant binding proteins from <i>Hermetia illucens</i> : potential sensing elements for detecting volatile aldehydes involved in early stages of organic decomposition. <i>Nanotechnology</i> , 2022, 33, 205501.	2.6	7
2	REducing Colonoscopies in patients without significant bowEl Disease: the RECEDE Study - protocol for a prospective diagnostic accuracy study. <i>BMJ Open</i> , 2022, 12, e058559.	1.9	2
3	Odorant Binding Proteins and Porphyrins Mixed Gas Sensor Array. , 2022, , .		0
4	P173â€¦Exploration of the use of urinary volatile organic compounds in comparison to alpha fetoprotein. , 2021, , .		0
5	P175â€¦Urinary analysis of hepatocellular carcinoma patients using solid phase microextraction. , 2021, , .		0
6	Pheromone receptor of the globally invasive quarantine pest of the palm tree, the red palm weevil (<i>Rhynchophorus ferrugineus</i>). <i>Molecular Ecology</i> , 2021, 30, 2025-2039.	3.9	30
7	Biosensor array based on ligand binding proteins for narcotics and explosives detection. <i>Sensors and Actuators B: Chemical</i> , 2021, 334, 129587.	7.8	16
8	Systematic review with meta-analysis: volatile organic compound analysis to improve faecal immunochemical testing in the detection of colorectal cancer. <i>Alimentary Pharmacology and Therapeutics</i> , 2021, 54, 14-23.	3.7	20
9	Artificial Olfaction in the 21 st Century. <i>IEEE Sensors Journal</i> , 2021, 21, 12969-12990.	4.7	46
10	Editorial: volatile organic compound analysis to improve faecal immunochemical testing in the detection of colorectal cancerâ€”Authors' reply. <i>Alimentary Pharmacology and Therapeutics</i> , 2021, 54, 506-507.	3.7	2
11	<i>Hermetia illucens</i> (L.) (Diptera: Stratiomyidae) Odorant Binding Proteins and Their Interactions with Selected Volatile Organic Compounds: An In Silico Approach. <i>Insects</i> , 2021, 12, 814.	2.2	25
12	Differentiating cancer types using a urine test for volatile organic compounds. <i>Journal of Breath Research</i> , 2021, 15, 017102.	3.0	16
13	Amine Detection Using Organic Field Effect Transistor Gas Sensors. <i>Sensors</i> , 2021, 21, 13.	3.8	14
14	Suspended graphene arrays for gas sensing applications. <i>2D Materials</i> , 2021, 8, 025006.	4.4	15
15	Gravimetric biosensors. <i>Methods in Enzymology</i> , 2020, 642, 435-468.	1.0	12
16	Modification of an <i>Anopheles gambiae</i> odorant binding protein to create an array of chemical sensors for detection of drugs. <i>Scientific Reports</i> , 2020, 10, 3890.	3.3	21
17	Robust High-Capacitance Polymer Gate Dielectrics for Stable Low-Voltage Organic Field-Effect Transistor Sensors. <i>Advanced Electronic Materials</i> , 2020, 6, 1901127.	5.1	29
18	Engineering Olfaction. , 2020, , 743-757.		0

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19	Pheromone Detection Using Odorant Binding Protein Sensors. , 2019, , .		5
20	Effects of point mutations in the binding pocket of the mouse major urinary protein MUP20 on ligand affinity and specificity. Scientific Reports, 2019, 9, 300.	3.3	18
21	The Optimization of a Lateral Flow Immunoassay for Detection of Aflatoxin B ₁ in Potable Water Samples. IEEE Sensors Journal, 2019, 19, 404-412.	4.7	11
22	Qualitative and Quantitative Assessment of Petroleum Contaminants in Soils under Tropical Weather Conditions. American Journal of Analytical Chemistry, 2019, 10, 112-125.	0.9	2
23	A commentary on the 18 th International Symposium on Olfaction and Electronic Nose (ISOEN 2019). Journal of Japan Association on Odor Environment, 2019, 50, 393-398.	0.0	0
24	Analysis of volatile organic compounds in exhaled breath for lung cancer diagnosis using a sensor system. Sensors and Actuators B: Chemical, 2018, 255, 800-807.	7.8	111
25	A study on volatile organic compounds emitted by in-vitro lung cancer cultured cells using gas sensor array and SPME-GCMS. BMC Cancer, 2018, 18, 362.	2.6	55
26	Towards bionic noses. Sensor Review, 2017, 37, 165-171.	1.8	7
27	River water quality analysis via headspace detection of volatile organic compounds. AIP Conference Proceedings, 2017, , .	0.4	0
28	Rapid evaluation of microbial count in river water based on headspace concentration of volatile organic compounds. , 2017, , .		1
29	Fully solution processed low voltage OFET platform for vapour sensing applications. , 2017, , .		4
30	Biomimetic diamond MEMS sensors based on odorant-binding proteins: Sensors validation through an autonomous electronic system. , 2017, , .		7
31	Odorant binding proteins based sniffing device for detection of tobacco. , 2017, , .		1
32	Major Urinary Proteins on Nanodiamond-Based Resonators Toward Artificial Olfaction. IEEE Sensors Journal, 2016, 16, 6543-6550.	4.7	15
33	Sample handling for electronic nose technology: State of the art and future trends. TrAC - Trends in Analytical Chemistry, 2016, 82, 222-236.	11.4	54
34	Electronic Noses and Tongues in the Food Industry. , 2016, , 1-12.		10
35	Capacitance-modulated transistor detects odorant binding protein chiral interactions. Nature Communications, 2015, 6, 6010.	12.8	204
36	Butanol production in <i>S. cerevisiae</i> via a synthetic ABE pathway is enhanced by specific metabolic engineering and butanol resistance. Biotechnology for Biofuels, 2015, 8, 97.	6.2	41

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37	An Efficient Approach for Preprocessing Data from a Large-Scale Chemical Sensor Array. <i>Sensors</i> , 2014, 14, 17786-17806.	3.8	4
38	Structure and biotechnological applications of odorant-binding proteins. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 61-70.	3.6	133
39	A biomimetic approach to machine olfaction, featuring a very large-scale chemical sensor array and embedded neuro-bio-inspired computation. <i>Microsystem Technologies</i> , 2014, 20, 729-742.	2.0	36
40	Synthesis of poly-[2,5-di(thiophen-2-yl)-1H-pyrrole] derivatives and the effects of the substituents on their properties. <i>Synthetic Metals</i> , 2014, 196, 158-165.	3.9	16
41	Development of a New Generation of Ammonia Sensors on Printed Polymeric Hotplates. <i>Analytical Chemistry</i> , 2014, 86, 8951-8958.	6.5	41
42	Grafting odorant binding proteins on diamond bio-MEMS. <i>Biosensors and Bioelectronics</i> , 2014, 60, 311-317.	10.1	47
43	Description and Characterisation of a Large Array of Sensors Mimicking an Artificial Olfactory Epithelium. <i>Procedia Engineering</i> , 2014, 87, 863-866.	1.2	1
44	Biosensors Based on Odorant Binding Proteins. , 2014, , 171-190.		3
45	Printed micro-hotplates on flexible substrates for gas sensing. , 2013, , .		1
46	A software tool for large-scale synthetic experiments based on polymeric sensor arrays. <i>Sensors and Actuators B: Chemical</i> , 2013, 177, 596-604.	7.8	8
47	Engineering Aspects of Olfaction. <i>Frontiers in Neuroengineering Series</i> , 2013, , 1-58.	0.4	4
48	Large-Scale Chemical Sensor Array Testing Biological Olfaction Concepts. <i>IEEE Sensors Journal</i> , 2012, 12, 3174-3183.	4.7	36
49	Guest Editorial - Special issue on machine olfaction. <i>IEEE Sensors Journal</i> , 2012, 12, 3105-3107.	4.7	4
50	Biomimetic Olfactory Sensors. <i>IEEE Sensors Journal</i> , 2012, 12, 3108-3112.	4.7	28
51	Nanofibrous PANI-based conductive polymers for trace gas analysis. <i>Thin Solid Films</i> , 2011, 520, 978-985.	1.8	35
52	Biologically Inspired Computation for Chemical Sensing. <i>Procedia Computer Science</i> , 2011, 7, 226-227.	2.0	7
53	A Large Scale Virtual Gas Sensor Array. , 2011, , .		1
54	Novel Signal Processing Techniques Based on PDF Information for Sensor-Drift Compensation. <i>Sensor Letters</i> , 2011, 9, 439-443.	0.4	4

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55	A New Compensation Method for Sensor-Drift Effect Based on the Cross-Correntropy Concept. Sensor Letters, 2011, 9, 710-713.	0.4	2
56	Drift compensation of gas sensor array data by common principal component analysis. Sensors and Actuators B: Chemical, 2010, 146, 460-465.	7.8	167
57	Design of a very large chemical sensor system for mimicking biological olfaction. Sensors and Actuators B: Chemical, 2010, 146, 446-452.	7.8	73
58	Drift compensation of gas sensor array data by Orthogonal Signal Correction. Chemometrics and Intelligent Laboratory Systems, 2010, 100, 28-35.	3.5	189
59	Wound-State Monitoring for Burn Patients Using E-Nose/SPME System. ETRI Journal, 2010, 32, 440-446.	2.0	54
60	Fault detection, identification, and reconstruction of faulty chemical gas sensors under drift conditions, using Principal Component Analysis and Multiscale-PCA. , 2010, , .		10
61	Blind subjects explore and navigate the visual world using video images encoded in musical form. Journal of Vision, 2010, 2, 511-511.	0.3	0
62	Electrical characterization of a pig odorant binding protein by Impedance Spectroscopy. , 2009, , .		5
63	Sensor Drift Compensation Algorithm based on PDF Distance Minimization. , 2009, , .		1
64	Development of conducting polymer sensor arrays for wound monitoring. Sensors and Actuators B: Chemical, 2008, 131, 5-9.	7.8	27
65	Identification of wound infection by limited set of volatile products. , 2008, , .		5
66	Development of a perimeter odor monitoring system for landfill sites. , 2008, , .		3
67	Solid State Chemical Sensors: Technologies and Applications. , 2007, , .		1
68	Poisoning fault diagnosis in chemical gas sensor arrays using multivariate statistical signal processing and structured residuals generation. , 2007, , .		2
69	Recovery of drifting sensor responses by means of DWT analysis. Sensors and Actuators B: Chemical, 2007, 120, 411-416.	7.8	30
70	Normalization approach to the stochastic gradient radial basis function network algorithm for odor sensing systems. Sensors and Actuators B: Chemical, 2007, 124, 407-412.	7.8	7
71	Development of an electronic nose for fire detection. Sensors and Actuators B: Chemical, 2006, 116, 55-61.	7.8	51
72	Generic system for the detection of statutory potato pathogens. Sensors and Actuators B: Chemical, 2006, 116, 100-106.	7.8	13

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73	Monitoring urinary tract infections and bacterial vaginosis. <i>Sensors and Actuators B: Chemical</i> , 2006, 116, 116-120.	7.8	14
74	On Training Neural Network Algorithms for Odor Identification for Future Multimedia Communication Systems. , 2006, , .		2
75	A powerful method for feature extraction and compression of electronic nose responses. <i>Sensors and Actuators B: Chemical</i> , 2005, 105, 378-392.	7.8	21
76	Polymers for chemical sensing. <i>Materials Today</i> , 2005, 8, 38-44.	14.2	138
77	'Electronic Nose'--New Condition Monitoring Devices for Environmental Applications. <i>Chemical Senses</i> , 2005, 30, i252-i253.	2.0	20
78	Medical Applications of Odor-Sensing Devices. <i>International Journal of Lower Extremity Wounds</i> , 2005, 4, 50-56.	1.1	22
79	Evanescent sensing of alkaline and acidic vapours using a plastic clad silica fibre doped with poly(o-methoxyaniline). <i>Sensors and Actuators B: Chemical</i> , 2004, 97, 174-181.	7.8	16
80	Drift counteraction with multiple self-organising maps for an electronic nose. <i>Sensors and Actuators B: Chemical</i> , 2004, 98, 305-317.	7.8	101
81	Fibre-optic evanescent sensing of gaseous ammonia with two forms of a new near-infrared dye in comparison to phenol red. <i>Sensors and Actuators B: Chemical</i> , 2003, 90, 37-45.	7.8	31
82	Remote detection of gaseous ammonia using the near infrared transmission properties of polyaniline. <i>Sensors and Actuators B: Chemical</i> , 2003, 90, 163-169.	7.8	115
83	The influence of non-specific molecular partitioning of analytes on the electrical responses of conducting organic polymer gas sensors. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 3482-3490.	2.8	44
84	Dynamic Cluster Recognition with Multiple Self-Organising Maps. <i>Pattern Analysis and Applications</i> , 2002, 5, 306-315.	4.6	34
85	On the study of feature extraction methods for an electronic nose. <i>Sensors and Actuators B: Chemical</i> , 2002, 87, 274-288.	7.8	160
86	An optical biosensor employing tiron-immobilised polypyrrole films for estimating monophenolase activity in apple juice. <i>Biosensors and Bioelectronics</i> , 2001, 16, 287-294.	10.1	16
87	Development of a relationship between olfactory response and major odorants from organic wastes. <i>Journal of the Science of Food and Agriculture</i> , 2001, 81, 188-193.	3.5	24
88	An investigation into the use of electrochromic polymers in optical fibre gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2001, 74, 138-144.	7.8	50
89	Acute and chronic exposure to ammonia and olfactory acuity for n-butanol in the pig. <i>Applied Animal Behaviour Science</i> , 2001, 71, 13-28.	1.9	17
90	Evaluation of a radial basis function neural network for the determination of wheat quality from electronic nose data. <i>Sensors and Actuators B: Chemical</i> , 2000, 69, 348-358.	7.8	85

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91	Automated indirect method of ammonia flux measurement for agriculture: effect of incident wind angle on airflow measurements. <i>Sensors and Actuators B: Chemical</i> , 2000, 69, 389-396.	7.8	5
92	Sensing Volatile Chemicals Using Conducting Polymer Arrays. , 2000, , 149-181.		11
93	The perception of visual images encoded in musical form: a study in cross-modality information transfer. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 1999, 266, 2427-2433.	2.6	58
94	A smart gas sensor for monitoring environmental changes in closed systems: results from the MIR space station. <i>Sensors and Actuators B: Chemical</i> , 1999, 55, 118-126.	7.8	35
95	On-line analysis of sample atmospheres using membrane inlet mass spectrometry as a method of monitoring vegetable respiration rate. <i>Analytica Chimica Acta</i> , 1999, 394, 43-54.	5.4	8
96	An Artificial Neural Network Based Encoding of an Invariant Sammon Map for Real-Time Projection of Patterns from Odour Sensor Arrays. , 1999, , 187-194.		0
97	Application of inverse gas chromatography to characterisation of a polypyrrole surface. <i>Analytica Chimica Acta</i> , 1998, 363, 147-156.	5.4	36
98	Pseudo-random binary sequence interrogation technique for gas sensors. <i>Sensors and Actuators B: Chemical</i> , 1998, 47, 118-124.	7.8	30
99	Fully Operational FTIR Based Multi-Component Gas Analysis System for Spacecraft Cabin Air Monitoring. , 1998, , .		7
100	Application of unsupervised clustering methods to the assessment of malodour in agriculture using an array of conducting polymer odour sensors. <i>Computers and Electronics in Agriculture</i> , 1997, 17, 233-247.	7.7	28
101	An intelligent gas sensing system. <i>Sensors and Actuators B: Chemical</i> , 1997, 44, 512-516.	7.8	30
102	Use of an Electronic Nose to Measure Odour Concentration Following Application of Cattle Slurry to Grassland. <i>Biosystems Engineering</i> , 1997, 66, 213-220.	0.4	56
103	Measurement of Sensory Quality Using Electronic Sensing Systems. <i>Measurement and Control</i> , 1996, 29, 17-20.	1.8	3
104	Multi-frequency measurements of organic conducting polymers for sensing of gases and vapours. <i>Sensors and Actuators B: Chemical</i> , 1996, 33, 137-141.	7.8	38
105	Sensor array techniques for mimicking the mammalian olfactory system. <i>Sensors and Actuators B: Chemical</i> , 1996, 36, 267-273.	7.8	58
106	Assessment of Conducting Polymer Odour Sensors for Agricultural Malodour Measurements. <i>Chemical Senses</i> , 1996, 21, 495-505.	2.0	58
107	Application of Radial Basis Function Neural Networks to odour sensing using a broad specificity array of conducting polymers. <i>Lecture Notes in Computer Science</i> , 1996, , 299-304.	1.3	2
108	High-frequency a.c. investigation of conducting polymer gas sensors. <i>Sensors and Actuators B: Chemical</i> , 1995, 23, 223-226.	7.8	30

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109	High-frequency measurements of conducting polymers: development of a new technique for sensing volatile chemicals. <i>Measurement Science and Technology</i> , 1995, 6, 1500-1507.	2.6	47
110	Applications for an Electronic Aroma Detector in the Analysis of Beer and Raw Materials. <i>Journal of the American Society of Brewing Chemists</i> , 1995, 53, 39-42.	1.1	10
111	Towards an integrated electronic nose using conducting polymer sensors. <i>Sensors and Actuators B: Chemical</i> , 1994, 18, 221-228.	7.8	147
112	Odor Evaluation of Foods Using Conducting Polymer Arrays and Neural Net Pattern Recognition. , 1994, , 708-710.		6
113	Synthesis, chemical characterisation and multifrequency measurements of poly N-(2-pyridyl) pyrrole for sensing volatile chemicals. <i>Materials Science and Engineering C</i> , 1993, 1, 17-22.	7.3	23
114	Development of an enzyme-based biosensor for atrazine detection. <i>Analyst, The</i> , 1993, 118, 419.	3.5	74
115	Design Strategies For Gas And Odour Sensors Which Mimic The Olfactory System. , 1993, , 579-602.		7
116	Electronic gas and odour detectors that mimic chemoreception in animals. <i>TrAC - Trends in Analytical Chemistry</i> , 1992, 11, 61-67.	11.4	53
117	Odour detection using sensor arrays. <i>Analytical Proceedings</i> , 1991, 28, 339.	0.4	11
118	Direct measurement of translingual epithelial NaCl and KCl currents during the chorda tympani taste response. <i>Biophysical Journal</i> , 1989, 55, 843-857.	0.5	44
119	Ion transport across the frog olfactory mucosa: the action of cyclic nucleotides on the basal and odorant-stimulated states. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1988, 944, 49-62.	2.6	27
120	Binding and metabolism of the urinous odorant 5 α -androstane-3-one in sheep olfactory mucosa. <i>Chemical Senses</i> , 1988, 13, 231-245.	2.0	18
121	Binding proteins for sweet compounds from gustatory papillae of the cow, pig and rat. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1988, 967, 65-75.	2.4	9
122	Gas Sensors: Towards an Artificial Nose. , 1988, , 361-381.		25
123	Voltage-Clamp Studies of the Isolated Olfactory Mucosa. , 1988, , 159-181.		0
124	Ion transport across the frog olfactory mucosa: the basal and odorant-stimulated states. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1987, 902, 65-79.	2.6	24
125	Purification and characterisation of an odorant-binding protein from cow nasal tissue. <i>FEBS Journal</i> , 1985, 149, 227-231.	0.2	156
126	Analysis of discrimination mechanisms in the mammalian olfactory system using a model nose. <i>Nature</i> , 1982, 299, 352-355.	27.8	1,305

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127	Biochemical studies in olfaction. Biochemical Society Transactions, 1981, 9, 107-108.	3.4	5
128	Biochemical Mechanisms in Vertebrate Primary Olfactory Neurons. , 1981, , 333-357.		10
129	Correlating Electronic Nose and Sensory Panel Data. , 0, , 377-397.		0
130	Medical Diagnostics and Health Monitoring. , 0, , 445-460.		2
131	Hand-held electronic nose (HHEN) for dry rot detection in buildings. , 0, , .		0