

Hossam Haick

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

244
papers

14,973
citations

71
h-index

116
g-index

268
ext. papers

17,587
ext. citations

10.6
avg, IF

7.15
L-index

#	Paper	IF	Citations
244	Diagnosing lung cancer in exhaled breath using gold nanoparticles. <i>Nature Nanotechnology</i> , 2009 , 4, 669-737	28.7	893
243	Volatile organic compounds of lung cancer and possible biochemical pathways. <i>Chemical Reviews</i> , 2012 , 112, 5949-66	68.1	524
242	Detection of lung, breast, colorectal, and prostate cancers from exhaled breath using a single array of nanosensors. <i>British Journal of Cancer</i> , 2010 , 103, 542-51	8.7	515
241	Oxidation of Polycrystalline Copper Thin Films at Ambient Conditions. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 1101-1108	3.8	491
240	Assessment, origin, and implementation of breath volatile cancer markers. <i>Chemical Society Reviews</i> , 2014 , 43, 1423-49	58.5	371
239	Sensors for breath testing: from nanomaterials to comprehensive disease detection. <i>Accounts of Chemical Research</i> , 2014 , 47, 66-76	24.3	365
238	Flexible sensors based on nanoparticles. <i>ACS Nano</i> , 2013 , 7, 8366-78	16.7	364
237	Diagnosis and Classification of 17 Diseases from 1404 Subjects via Pattern Analysis of Exhaled Molecules. <i>ACS Nano</i> , 2017 , 11, 112-125	16.7	279
236	Advanced Materials for Use in Soft Self-Healing Devices. <i>Advanced Materials</i> , 2017 , 29, 1604973	24	265
235	Nanomaterial-based sensors for detection of disease by volatile organic compounds. <i>Nanomedicine</i> , 2013 , 8, 785-806	5.6	229
234	Electrostatic Properties of Ideal and Non-ideal Polar Organic Monolayers: Implications for Electronic Devices. <i>Advanced Materials</i> , 2007 , 19, 4103-4117	24	212
233	Artificial sensing intelligence with silicon nanowires for ultrasensitive detection in the gas phase. <i>Nano Letters</i> , 2014 , 14, 933-8	11.5	180
232	Ultrasensitive silicon nanowire for real-world gas sensing: noninvasive diagnosis of cancer from breath volatolome. <i>Nano Letters</i> , 2015 , 15, 1288-95	11.5	173
231	Detecting simulated patterns of lung cancer biomarkers by random network of single-walled carbon nanotubes coated with nonpolymeric organic materials. <i>Nano Letters</i> , 2008 , 8, 3631-5	11.5	170
230	Making contact: Connecting molecules electrically to the macroscopic world. <i>Progress in Surface Science</i> , 2008 , 83, 217-261	6.6	168
229	Advanced Materials for Health Monitoring with Skin-Based Wearable Devices. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1700024	10.1	165
228	Motivation to learn in massive open online courses: Examining aspects of language and social engagement. <i>Computers and Education</i> , 2016 , 94, 49-60	9.5	165

227	Hybrid volatolomics and disease detection. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 11036-46.4	16.4	161
226	Self-Healing, Fully Functional, and Multiparametric Flexible Sensing Platform. <i>Advanced Materials</i> , 2016 , 28, 138-43	24	160
225	A nanomaterial-based breath test for distinguishing gastric cancer from benign gastric conditions. <i>British Journal of Cancer</i> , 2013 , 108, 941-50	8.7	153
224	Sniffing the unique "odor print" of non-small-cell lung cancer with gold nanoparticles. <i>Small</i> , 2009 , 5, 2618-24	11	143
223	Chemical sensors based on molecularly modified metallic nanoparticles. <i>Journal Physics D: Applied Physics</i> , 2007 , 40, 7173-7186	3	143
222	Diagnosis of head-and-neck cancer from exhaled breath. <i>British Journal of Cancer</i> , 2011 , 104, 1649-55	8.7	142
221	Silicon Nanowire Sensors Enable Diagnosis of Patients via Exhaled Breath. <i>ACS Nano</i> , 2016 , 10, 7047-57	16.7	142
220	Classification of lung cancer histology by gold nanoparticle sensors. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2012 , 8, 580-9	6	139
219	Multiplexed Nanomaterial-Based Sensor Array for Detection of COVID-19 in Exhaled Breath. <i>ACS Nano</i> , 2020 , 14, 12125-12132	16.7	137
218	Tunable touch sensor and combined sensing platform: toward nanoparticle-based electronic skin. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 5531-41	9.5	135
217	Disease Detection with Molecular Biomarkers: From Chemistry of Body Fluids to Nature-Inspired Chemical Sensors. <i>Chemical Reviews</i> , 2019 , 119, 11761-11817	68.1	134
216	Electrical characteristics and chemical stability of non-oxidized, methyl-terminated silicon nanowires. <i>Journal of the American Chemical Society</i> , 2006 , 128, 8990-1	16.4	134
215	Dynamic Nanoparticle-Based Flexible Sensors: Diagnosis of Ovarian Carcinoma from Exhaled Breath. <i>Nano Letters</i> , 2015 , 15, 7023-8	11.5	133
214	Gas Sensors Based on Chemi-Resistive Hybrid Functional Nanomaterials. <i>Nano-Micro Letters</i> , 2020 , 12, 71	19.5	131
213	Synergy between nanomaterials and volatile organic compounds for non-invasive medical evaluation. <i>Chemical Society Reviews</i> , 2018 , 47, 4781-4859	58.5	131
212	Detection of Alzheimer's and Parkinson's disease from exhaled breath using nanomaterial-based sensors. <i>Nanomedicine</i> , 2013 , 8, 43-56	5.6	130
211	Nanoscale Sensor Technologies for Disease Detection via Volatolomics. <i>Small</i> , 2015 , 11, 6142-64	11	128
210	Non-invasive breath analysis of pulmonary nodules. <i>Journal of Thoracic Oncology</i> , 2012 , 7, 1528-33	8.9	127

209	Nanomaterials for cross-reactive sensor arrays. <i>MRS Bulletin</i> , 2010 , 35, 797-803	3.2	127
208	Detection of nonpolar molecules by means of carrier scattering in random networks of carbon nanotubes: toward diagnosis of diseases via breath samples. <i>Nano Letters</i> , 2009 , 9, 1362-8	11.5	120
207	Enhanced sensing of nonpolar volatile organic compounds by silicon nanowire field effect transistors. <i>ACS Nano</i> , 2011 , 5, 5620-6	16.7	119
206	Contacting organic molecules by soft methods: towards molecule-based electronic devices. <i>Accounts of Chemical Research</i> , 2008 , 41, 359-66	24.3	114
205	Self-Healable Sensors Based Nanoparticles for Detecting Physiological Markers via Skin and Breath: Toward Disease Prevention via Wearable Devices. <i>Nano Letters</i> , 2016 , 16, 4194-202	11.5	113
204	Effect of humidity on nanoparticle-based chemiresistors: a comparison between synthetic and real-world samples. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 317-25	9.5	113
203	A Highly Sensitive Diketopyrrolopyrrole-Based Ambipolar Transistor for Selective Detection and Discrimination of Xylene Isomers. <i>Advanced Materials</i> , 2016 , 28, 4012-8	24	112
202	Detection of cancer through exhaled breath: a systematic review. <i>Oncotarget</i> , 2015 , 6, 38643-57	3.3	111
201	Materials and Wearable Devices for Autonomous Monitoring of Physiological Markers. <i>Advanced Materials</i> , 2018 , 30, e1705024	24	110
200	Detection of precancerous gastric lesions and gastric cancer through exhaled breath. <i>Gut</i> , 2016 , 65, 400-79.2	19.2	104
199	Autonomous Flexible Sensors for Health Monitoring. <i>Advanced Materials</i> , 2018 , 30, e1802337	24	101
198	Hybrids of organic molecules and flat, oxide-free silicon: high-density monolayers, electronic properties, and functionalization. <i>Langmuir</i> , 2012 , 28, 9920-9	4	98
197	Detection of multiple sclerosis from exhaled breath using bilayers of polycyclic aromatic hydrocarbons and single-wall carbon nanotubes. <i>ACS Chemical Neuroscience</i> , 2011 , 2, 687-93	5.7	96
196	Interactive effect of hysteresis and surface chemistry on gated silicon nanowire gas sensors. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 2604-17	9.5	95
195	Controlling semiconductor/metal junction barriers by incomplete, nonideal molecular monolayers. <i>Journal of the American Chemical Society</i> , 2006 , 128, 6854-69	16.4	95
194	Highly stable organic monolayers for reacting silicon with further functionalities: the effect of the C-C bond nearest the silicon surface. <i>Journal of the American Chemical Society</i> , 2008 , 130, 13727-34	16.4	93
193	Remote Photocatalytic Activity as Probed by Measuring the Degradation of Self-Assembled Monolayers Anchored near Microdomains of Titanium Dioxide. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 3045-3051	3.4	91
192	Breath testing as potential colorectal cancer screening tool. <i>International Journal of Cancer</i> , 2016 , 138, 229-36	7.5	91

191	A nanomaterial-based breath test for short-term follow-up after lung tumor resection. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2013 , 9, 15-21	6	87
190	Nanoarray of polycyclic aromatic hydrocarbons and carbon nanotubes for accurate and predictive detection in real-world environmental humidity. <i>ACS Nano</i> , 2011 , 5, 6743-53	16.7	86
189	Carbon nanotube/hexa-peri-hexabenzocoronene bilayers for discrimination between nonpolar volatile organic compounds of cancer and humid atmospheres. <i>Advanced Materials</i> , 2010 , 22, 4317-20	24	86
188	Long-Range Effects of Noble Metals on the Photocatalytic Properties of Titanium Dioxide. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 2319-2326	3.4	85
187	Assessment of ovarian cancer conditions from exhaled breath. <i>International Journal of Cancer</i> , 2015 , 136, E614-22	7.5	83
186	Molecular gating of silicon nanowire field-effect transistors with nonpolar analytes. <i>ACS Nano</i> , 2012 , 6, 335-45	16.7	83
185	Electronic Noses: From Advanced Materials to Sensors Aided with Data Processing. <i>Advanced Materials Technologies</i> , 2018 , 4, 1800488	6.8	83
184	Molecular electronics at metal/semiconductor junctions. Si inversion by sub-nanometer molecular films. <i>Nano Letters</i> , 2009 , 9, 2390-4	11.5	82
183	Sniffing chronic renal failure in rat model by an array of random networks of single-walled carbon nanotubes. <i>ACS Nano</i> , 2009 , 3, 1258-66	16.7	81
182	Combined volatolomics for monitoring of human body chemistry. <i>Scientific Reports</i> , 2014 , 4, 4611	4.9	79
181	Engineering crystalline quasi-two-dimensional polyaniline thin film with enhanced electrical and chemiresistive sensing performances. <i>Nature Communications</i> , 2019 , 10, 4225	17.4	78
180	Volatile fingerprints of cancer specific genetic mutations. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2013 , 9, 758-66	6	78
179	Monolayer-capped gold nanoparticles for disease detection from breath. <i>Nanomedicine</i> , 2014 , 9, 1991-2002	9.02	77
178	Classification of breast cancer precursors through exhaled breath. <i>Breast Cancer Research and Treatment</i> , 2011 , 126, 791-6	4.4	77
177	Selective photocatalysis by means of molecular recognition. <i>Journal of the American Chemical Society</i> , 2001 , 123, 10776-7	16.4	75
176	Detecting active pulmonary tuberculosis with a breath test using nanomaterial-based sensors. <i>European Respiratory Journal</i> , 2014 , 43, 1522-5	13.6	73
175	Gold nanoparticle sensors for detecting chronic kidney disease and disease progression. <i>Nanomedicine</i> , 2012 , 7, 639-50	5.6	73
174	Tuning the electrical properties of Si nanowire field-effect transistors by molecular engineering. <i>Small</i> , 2009 , 5, 2761-9	11	72

173	Assessment of the exhalation kinetics of volatile cancer biomarkers based on their physicochemical properties. <i>Journal of Breath Research</i> , 2014 , 8, 016003	3.1	66
172	Monolayer-Capped Cubic Platinum Nanoparticles for Sensing Nonpolar Analytes in Highly Humid Atmospheres. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 14042-14049	3.8	66
171	Chemical Passivation of Silicon Nanowires with C16 Alkyl Chains through Covalent Si-C Bonds. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 19168-19172	3.8	66
170	Arrays of chemisensitive monolayer-capped metallic nanoparticles for diagnostic breath testing. <i>Reviews in Chemical Engineering</i> , 2010 , 26,	5	65
169	Electrical Contacts to Organic Molecular Films by Metal Evaporation: Effect of Contacting Details. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 2318-2329	3.8	65
168	Exhaled Breath Analysis for Monitoring Response to Treatment in Advanced Lung Cancer. <i>Journal of Thoracic Oncology</i> , 2016 , 11, 827-37	8.9	64
167	Direct observation of the transition point between quasi-spherical and cubic nanoparticles in a two-step seed-mediated growth method. <i>Small</i> , 2008 , 4, 2059-66	11	62
166	High-resolution unpixelated smart patches with antiparallel thickness gradients of nanoparticles. <i>Advanced Materials</i> , 2015 , 27, 1779-84	24	60
165	Highly Efficient and Water-Insensitive Self-Healing Elastomer for Wet and Underwater Electronics. <i>Advanced Functional Materials</i> , 2020 , 30, 1910196	15.6	59
164	Effect of functional groups on the sensing properties of silicon nanowires toward volatile compounds. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 2289-99	9.5	55
163	Covalent Attachment of Alkyl Functionality to 50 nm Silicon Nanowires through a Chlorination/Alkylation Process. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 14823-14828	3.8	55
162	Pd versus Au as evaporated metal contacts to molecules. <i>Applied Physics Letters</i> , 2005 , 86, 042113	3.4	55
161	Contacting organic molecules by metal evaporation. <i>Physical Chemistry Chemical Physics</i> , 2004 , 6, 4538	3.6	55
160	A Multifunctional Electronic Skin Empowered with Damage Mapping and Autonomic Acceleration of Self-Healing in Designated Locations. <i>Advanced Materials</i> , 2020 , 32, e2000246	24	53
159	Discontinuous Molecular Films Can Control Metal/Semiconductor Junctions. <i>Advanced Materials</i> , 2004 , 16, 2145-2151	24	52
158	Detection of volatile organic compounds in cattle naturally infected with Mycobacterium bovis. <i>Sensors and Actuators B: Chemical</i> , 2012 , 171-172, 588-594	8.5	50
157	Effect of chain length on the sensing of volatile organic compounds by means of silicon nanowires. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 5748-56	9.5	50
156	The scent fingerprint of hepatocarcinoma: in-vitro metastasis prediction with volatile organic compounds (VOCs). <i>International Journal of Nanomedicine</i> , 2012 , 7, 4135-46	7.3	49

155	Controlled mass transport as a means for obtaining selective photocatalysis. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2003 , 160, 77-85	4.7	49
154	Chemically sensitive resistors based on monolayer-capped cubic nanoparticles: towards configurable nanoporous sensors. <i>Small</i> , 2009 , 5, 1158-61	11	48
153	Charge transport across metal/molecular (alkyl) monolayer-Si junctions is dominated by the LUMO level. <i>Physical Review B</i> , 2012 , 85,	3.3	48
152	Analysis of exhaled breath for diagnosing head and neck squamous cell carcinoma: a feasibility study. <i>British Journal of Cancer</i> , 2014 , 111, 790-8	8.7	46
151	Field effect transistors based on polycyclic aromatic hydrocarbons for the detection and classification of volatile organic compounds. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 3431-40	9.5	46
150	Tailoring the Work Function of Gold Surface by Controlling Coverage and Disorder of Polar Molecular Monolayers. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 12988-12992	3.8	46
149	Spray-coating route for highly aligned and large-scale arrays of nanowires. <i>ACS Nano</i> , 2012 , 6, 4702-12	16.7	45
148	Measurement of temperature and relative humidity in exhaled breath. <i>Sensors and Actuators B: Chemical</i> , 2020 , 304, 127371	8.5	45
147	Differentiation between genetic mutations of breast cancer by breath volatolomics. <i>Oncotarget</i> , 2015 , 6, 44864-76	3.3	44
146	Chemical sensors for breath gas analysis: the latest developments at the Breath Analysis Summit 2013. <i>Journal of Breath Research</i> , 2014 , 8, 027103	3.1	42
145	Oxide-free hybrid silicon nanowires: From fundamentals to applied nanotechnology. <i>Progress in Surface Science</i> , 2013 , 88, 39-60	6.6	42
144	Detection of asymptomatic nigrostriatal dopaminergic lesion in rats by exhaled air analysis using carbon nanotube sensors. <i>ACS Chemical Neuroscience</i> , 2012 , 3, 161-6	5.7	42
143	Silicon nanowires terminated with methyl functionalities exhibit stronger Si-C bonds than equivalent 2D surfaces. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 3845-8	3.6	42
142	Multi-Parametric Sensing Platforms Based on Nanoparticles. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600206	6.8	38
141	Spongelike structures of hexa-peri-hexabenzocoronene derivatives enhance the sensitivity of chemiresistive carbon nanotubes to nonpolar volatile organic compounds of cancer. <i>Langmuir</i> , 2009 , 25, 5411-6	4	38
140	Highly stable organic modification of Si(111) surfaces: towards reacting Si with further functionalities while preserving the desirable chemical properties of full Si-C atop site terminations. <i>Journal of the American Chemical Society</i> , 2008 , 130, 9184-5	16.4	38
139	A proof of concept for the detection and classification of pulmonary arterial hypertension through breath analysis with a sensor array. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2013 , 188, 756-9	10.2	37
138	Detection of Lung Cancer and EGFR Mutation by Electronic Nose System. <i>Journal of Thoracic Oncology</i> , 2017 , 12, 1544-1551	8.9	37

137	A Highly Aligned Nanowire-Based Strain Sensor for Ultrasensitive Monitoring of Subtle Human Motion. <i>Small</i> , 2020 , 16, e2001363	11	36
136	Discriminative power of chemically sensitive silicon nanowire field effect transistors to volatile organic compounds. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 11172-83	9.5	36
135	Stable scaffolds for reacting Si nanowires with further organic functionalities while preserving Si-C passivation of surface sites. <i>Journal of the American Chemical Society</i> , 2008 , 130, 17670-1	16.4	36
134	Detecting COVID-19 from Breath: A Game Changer for a Big Challenge. <i>ACS Sensors</i> , 2021 , 6, 1408-1417	9.2	36
133	Self-Healing Soft Sensors: From Material Design to Implementation. <i>Advanced Materials</i> , 2021 , 33, e2004190	11.0	35
132	Sensors for detecting pulmonary diseases from exhaled breath. <i>European Respiratory Review</i> , 2019 , 28,	9.8	34
131	Unique volatolomic signatures of TP53 and KRAS in lung cells. <i>British Journal of Cancer</i> , 2014 , 111, 1213-8.7	8.7	34
130	Sensor Arrays Based on Polycyclic Aromatic Hydrocarbons: Chemiresistors versus Quartz-Crystal Microbalance. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 11641-53	9.5	34
129	Effect of molecular binding to a semiconductor on metal/molecule/semiconductor junction behavior. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 9622-30	3.4	34
128	Artificial Intelligence in Medical Sensors for Clinical Decisions. <i>ACS Nano</i> , 2021 , 15, 3557-3567	16.7	34
127	"Dark" photocatalysis: the degradation of organic molecules anchored to dark microdomains of titanium dioxide. <i>ChemPhysChem</i> , 2003 , 4, 617-20	3.2	33
126	Time-space-resolved origami hierarchical electronics for ultrasensitive detection of physical and chemical stimuli. <i>Nature Communications</i> , 2019 , 10, 1120	17.4	32
125	Free-Standing and Eco-Friendly Polyaniline Thin Films for Multifunctional Sensing of Physical and Chemical Stimuli. <i>Advanced Functional Materials</i> , 2017 , 27, 1703147	15.6	32
124	Directly transforming SnS ₂ nanosheets to hierarchical SnO ₂ nanotubes: Towards sensitive and selective sensing of acetone at relatively low operating temperatures. <i>Sensors and Actuators B: Chemical</i> , 2019 , 292, 148-155	8.5	31
123	Sensor arrays based on nanoparticles for early detection of kidney injury by breath samples. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2014 , 10, 1767-76	6	31
122	A Freestanding Stretchable and Multifunctional Transistor with Intrinsic Self-Healing Properties of all Device Components. <i>Small</i> , 2019 , 15, e1803939	11	31
121	Composites of Polymer and Carbon Nanostructures for Self-Healing Chemical Sensors. <i>Advanced Materials Technologies</i> , 2016 , 1, 1600187	6.8	30
120	Geographical variation in the exhaled volatile organic compounds. <i>Journal of Breath Research</i> , 2013 , 7, 047102	3.1	29

119	Distinguishing idiopathic Parkinson's disease from other parkinsonian syndromes by breath test. <i>Parkinsonism and Related Disorders</i> , 2015 , 21, 150-3	3.6	28
118	Effect of Perforation on the Sensing Properties of Monolayer-Capped Metallic Nanoparticle Films. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 15361-15368	3.8	28
117	Profiling Single Cancer Cells with Volatolomics Approach. <i>IScience</i> , 2019 , 11, 178-188	6.1	28
116	Breath analysis of cancer in the present and the future. <i>European Respiratory Review</i> , 2019 , 28,	9.8	27
115	Coverage Effect of Self-Assembled Polar Molecules on the Surface Energetics of Silicon. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 12599-12601	3.8	26
114	Volatolomics of breath as an emerging frontier in pulmonary arterial hypertension. <i>European Respiratory Journal</i> , 2017 , 49,	13.6	25
113	Polycyclic aromatic hydrocarbon for the detection of nonpolar analytes under counteracting humidity conditions. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 4960-5	9.5	25
112	Controlling Au/n-GaAs junctions by partial molecular monolayers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006 , 203, 3438-3451	1.6	25
111	Exhaled Breath Markers for Nonimaging and Noninvasive Measures for Detection of Multiple Sclerosis. <i>ACS Chemical Neuroscience</i> , 2017 , 8, 2402-2413	5.7	24
110	Cancerous glucose metabolism in lung cancer-evidence from exhaled breath analysis. <i>Journal of Breath Research</i> , 2016 , 10, 026012	3.1	22
109	Self-Healable Materials for Underwater Applications. <i>Advanced Materials Technologies</i> , 2019 , 4, 19000816.8		21
108	Light-Regulated Electrochemical Sensor Array for Efficiently Discriminating Hazardous Gases. <i>ACS Sensors</i> , 2017 , 2, 1467-1473	9.2	21
107	Catalyst-free functionalization for versatile modification of nonoxidized silicon structures. <i>Langmuir</i> , 2011 , 27, 4764-71	4	21
106	Highly Efficient Self-Healing Multifunctional Dressing with Antibacterial Activity for Sutureless Wound Closure and Infected Wound Monitoring. <i>Advanced Materials</i> , 2021 , e2106842	24	21
105	Cancer metabolism: the volatile signature of glycolysis-in vitro model in lung cancer cells. <i>Journal of Breath Research</i> , 2017 , 11, 016008	3.1	20
104	Detection of halitosis in breath: Between the past, present, and future. <i>Oral Diseases</i> , 2018 , 24, 685-695	3.5	20
103	Controlling properties of field effect transistors by intermolecular cross-linking of molecular dipoles. <i>Applied Physics Letters</i> , 2009 , 95, 233103	3.4	20
102	Diketopyrrolopyrrole copolymers based chemical sensors for the detection and discrimination of volatile organic compounds. <i>Sensors and Actuators B: Chemical</i> , 2017 , 251, 49-56	8.5	19

101	Programmed Nanoparticles for Tailoring the Detection of Inflammatory Bowel Diseases and Irritable Bowel Syndrome Disease via Breathprint. <i>Advanced Healthcare Materials</i> , 2016 , 5, 2339-44	10.1	19
100	Detection of volatile organic compounds in Brucella abortus-seropositive bison. <i>Analytical Chemistry</i> , 2013 , 85, 11146-52	7.8	19
99	Field-effect transistors based on silicon nanowire arrays: effect of the good and the bad silicon nanowires. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 4251-8	9.5	19
98	Controlling Surface Energetics of Silicon by Intermolecular Interactions between Parallel Self-Assembled Molecular Dipoles. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 1993-1997	3.8	19
97	Wearable Sensors and Systems for Wound Healing-Related pH and Temperature Detection. <i>Micromachines</i> , 2021 , 12,	3.3	18
96	Controlling the Sensing Properties of Silicon Nanowires via the Bonds Nearest to the Silicon Nanowire Surface. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 11315-21	9.5	17
95	Printing Ultrasensitive Artificially Intelligent Sensors Array with a Single Self-Propelled Droplet Containing Nanoparticles. <i>Advanced Functional Materials</i> , 2016 , 26, 6359-6370	15.6	17
94	Sensor Array for Detection of Early Stage Parkinson's Disease before Medication. <i>ACS Chemical Neuroscience</i> , 2018 , 9, 2548-2553	5.7	17
93	Wound Dressing: From Nanomaterials to Diagnostic Dressings and Healing Evaluations.. <i>ACS Nano</i> , 2022 ,	16.7	17
92	Ex vivo emission of volatile organic compounds from gastric cancer and non-cancerous tissue. <i>Journal of Breath Research</i> , 2018 , 12, 046005	3.1	16
91	Impact of hemodialysis on exhaled volatile organic compounds in end-stage renal disease: a pilot study. <i>Nanomedicine</i> , 2014 , 9, 1035-45	5.6	16
90	UV regulation of non-equilibrated electrochemical reaction for detecting aromatic volatile organic compounds. <i>Sensors and Actuators B: Chemical</i> , 2016 , 237, 30-40	8.5	16
89	Analysis of the effects of microbiome-related confounding factors on the reproducibility of the volatolomic test. <i>Journal of Breath Research</i> , 2016 , 10, 037101	3.1	15
88	Screening for gastric cancer using exhaled breath samples. <i>British Journal of Surgery</i> , 2019 , 106, 1122-1135	3.5	15
87	Formation of ultrasmooth and highly stable copper surfaces through annealing and self-assembly of organic monolayers. <i>Langmuir</i> , 2010 , 26, 191-201	4	15
86	Chemically Modified Polyaniline for the Detection of Volatile Biomarkers of Minimal Sensitivity to Humidity and Bending. <i>Advanced Healthcare Materials</i> , 2018 , 7, e1800232	10.1	15
85	Printing Nanostructures with a Propelled Anti-Pinning Ink Droplet. <i>Advanced Functional Materials</i> , 2015 , 25, 2411-2419	15.6	13
84	UV-induced SiC nanowire sensors. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 055102	3	13

83	Utility of Resistance and Capacitance Response in Sensors Based on Monolayer-Capped Metal Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , 2011 , 2, 1912-1916	6.4	13
82	Designing Thin Film-Capped Metallic Nanoparticles Configurations for Sensing Applications. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 1903-1909	3.8	12
81	Analysis of volatile organic compounds in rats with dopaminergic lesion: Possible application for early detection of Parkinson's disease. <i>Neurochemistry International</i> , 2014 , 76, 82-90	4.4	12
80	Organic Transistor Based on Cyclopentadithiophene-Benzothiadiazole Donor-Acceptor Copolymer for the Detection and Discrimination between Multiple Structural Isomers. <i>Advanced Functional Materials</i> , 2019 , 29, 1808188	15.6	12
79	Associations of diet and lifestyle factors with common volatile organic compounds in exhaled breath of average-risk individuals. <i>Journal of Breath Research</i> , 2019 , 13, 026006	3.1	12
78	Establishing the validity and reliability of a modified tool for assessing innovative thinking of engineering students. <i>Assessment and Evaluation in Higher Education</i> , 2020 , 45, 212-223	3.1	12
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