Janusz M Smulko

List of Publications by Year
in descending order

113	1,548	257450 24	361022 35
papers	citations	h-index	g-index

115	115	115	1535
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of UV light irradiation on fluctuation enhanced gas sensing by carbon nanotube networks. Sensors and Actuators B: Chemical, 2022, 352, 131069.	7.8	19
2	Combined chemoresistive and in situ FTIR spectroscopy study of nanoporous NiO films for light-activated nitrogen dioxide and acetone gas sensing. Sensors and Actuators B: Chemical, 2022, 353, 131125.	7.8	24
3	Novel Interpolation Method of Multi-DFT-Bins for Frequency Estimation of Signal With Parameter Step Change. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-14.	4.7	4
4	Analysis of exhaled breath for dengue disease detection by low-cost electronic nose system. Measurement: Journal of the International Measurement Confederation, 2022, 190, 110733.	5.0	10
5	Design of Intelligent Low-Voltage Load Switch for Remote Control System in Smart Grid. Iranian Journal of Science and Technology - Transactions of Electrical Engineering, 2021, 45, 585-595.	2.3	1
6	Risk Analysis by a Probabilistic Model of the Measurement Process. Sensors, 2021, 21, 2053.	3.8	4
7	An Instantaneous Engine Speed Estimation Method Using Multiple Matching Synchrosqueezing Transform. Journal of Sensors, 2021, 2021, 1-11.	1.1	0
8	Room temperature depinning of the charge-density waves in quasi-two-dimensional 1T-TaS2 devices. Applied Physics Letters, 2021, 118, .	3.3	15
9	Utilizing pulse dynamics for non-invasive Raman spectroscopy of blood analytes. Biosensors and Bioelectronics, 2021, 180, 113115.	10.1	11
10	Generation-recombination and 1/f noise in carbon nanotube networks. Applied Physics Letters, 2021, 118, .	3.3	8
11	Embedded gas sensing setup for air samples analysis. Review of Scientific Instruments, 2021, 92, 074102.	1.3	8
12	Assessment of Fuel Cellsâ€™ State of Health by Low-Frequency Noise Measurements. Energies, 2021, 14, 8340.	3.1	4
13	Advanced operating methods. , 2020, , 189-208.		0
14	Comparability of Raman Spectroscopic Configurations: A Large Scale Cross-Laboratory Study. Analytical Chemistry, 2020, 92, 15745-15756.	6.5	46
15	UV Light-Modulated Fluctuation-Enhanced Gas Sensing by Layers of Graphene Flakes/TiO₂ Nanoparticles. Journal of Sensors, 2020, 2020, 1-9.	1.1	2
16	Fluctuation-Enhanced Sensing (FES): A Promising Sensing Technique. Applied Sciences (Switzerland), 2020, 10, 5818.	2.5	9
17	Ammonia Gas Sensors: Comparison of Solid-State and Optical Methods. Applied Sciences (Switzerland), 2020, 10, 5111.	2.5	46
18	Fluctuation-Enhanced Sensing. Journal of Sensors, 2020, 2020, 1-2.	1.1	0

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19	Assessment of Electronic Sensing Techniques for the Rapid Identification of Alveolar Echinococcosis through Exhaled Breath Analysis. Sensors, 2020, 20, 2666.	3.8	6
20	Temperature distribution of supercapacitors prepared by various technologies. Materials Today: Proceedings, 2020, 33, 2440-2444.	1.8	0
21	Formaldehyde detection with chemical gas sensors based on WO3 nanowires decorated with metal nanoparticles under dark conditions and UV light irradiation. Sensors and Actuators B: Chemical, 2020, 320, 128331.	7.8	59
22	Analysis of Vibration and Acoustic Signals for Noncontact Measurement of Engine Rotation Speed. Sensors, 2020, 20, 683.	3.8	10
23	Methods of Assessing Degradation of Supercapacitors by Using Various Measurement Techniques. Applied Sciences (Switzerland), 2019, 9, 2311.	2.5	7
24	Methods of trend removal in electrochemical noise data â€“ Overview. Measurement: Journal of the International Measurement Confederation, 2019, 131, 569-581.	5.0	60
25	Exhaled breath gas sensing using pristine and functionalized WO3 nanowire sensors enhanced by UV-light irradiation. Sensors and Actuators B: Chemical, 2018, 273, 1719-1729.	7.8	45
26	Feasibility study of a Raman spectroscopic route to drug detection. , 2017, , .		1
27	Noise sources in Raman spectroscopy of biological objects. , 2017, , .		2
28	Portable measurement system for breath analysis by real-time fluctuation enhanced sensing method. , 2017, , .		0
29	Facts and myths about zero-point thermal noise, and information entropy versus thermal entropy. , 2017, , .		0
30	Corrosion process monitoring by AFM higher harmonic imaging. Measurement Science and Technology, 2017, 28, 114001.	2.6	2
31	Fluctuation-enhanced and conductometric gas sensing with nanocrystalline NiO thin films: A comparison. Sensors and Actuators B: Chemical, 2017, 242, 132-139.	7.8	9
32	Non-Gaussian Resistance Fluctuations in Gold-Nanoparticle-Based Gas Sensors: An Appraisal of Different Evaluation Techniques. Sensors, 2017, 17, 757.	3.8	2
33	Measurements of flicker noise in supercapacitor cells. , 2017, , .		6
34	Computational complexity and length of recorded data for fluctuation enhanced sensing method in resistive gas sensors. IOP Conference Series: Materials Science and Engineering, 2016, 104, 012032.	0.6	0
35	Fluctuation enhanced gas sensing with WO3-based nanoparticle gas sensors modulated by UV light at selected wavelengths. Sensors and Actuators B: Chemical, 2016, 234, 453-461.	7.8	51
36	Fluctuation-enhanced sensing with organically functionalized gold nanoparticle gas sensors targeting biomedical applications. Talanta, 2016, 160, 9-14.	5.5	14

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37	Detection of Gaseous Compounds with Different Techniques. Metrology and Measurement Systems, 2016, 23, 205-224.	1.4	29
38	UV-Light-Induced Fluctuation Enhanced Sensing by WO₃-Based Gas Sensors. IEEE Sensors Journal, 2016, 16, 5152-5159.	4.7	16
39	System of breath collection and analysis for diseases detection. Przeglad Elektrotechniczny, 2016, 1, 49-52.	0.2	0
40	Waves in a short cable at low frequencies, or just hand-waving? What does physics say?. , 2015, , .		0
41	Determination Of Gas Mixture Components Using Fluctuation Enhanced Sensing And The LS-SVM Regression Algorithm. Metrology and Measurement Systems, 2015, 22, 341-350.	1.4	51
42	Gas selectivity enhancement by sampling-and-hold method in resistive gas sensors. Sensors and Actuators B: Chemical, 2015, 219, 17-21.	7.8	16
43	Efficiency of gas detection algorithms using fluctuation enhanced sensing. , 2015, , .		1
44	Critical remarks on Landauer's principle of erasure-dissipation: Including notes on Maxwell demons and Szilard engines. , 2015, , .		5
45	Nickel oxide thin film sensor for fluctuation-enhanced gas sensing of formaldehyde. , 2015, , .		0
46	New approaches for improving selectivity and sensitivity of resistive gas sensors: a review. Sensor Review, 2015, 35, 340-347.	1.8	75
47	Noise in biological Raman spectroscopy. , 2015, , .		7
48	Analysis of an Attenuator Artifact in an Experimental Attack by Gunnâ€“Allisonâ€“Abbott Against the Kirchhoff-Lawâ€“Johnson-Noise (KLJN) Secure Key Exchange System. Fluctuation and Noise Letters, 2015, 14, 1550011.	1.5	23
49	Analytical fluctuation enhanced sensing by resistive gas sensors. Sensors and Actuators B: Chemical, 2015, 213, 390-396.	7.8	17
50	Sensing of anesthetic drugs in blood with Raman spectroscopy. , 2015, , .		0
51	Performance Analysis of the "Intelligent" Kirchhoff-Lawâ€“Johnson-Noise Secure Key Exchange. Fluctuation and Noise Letters, 2014, 13, 1450024.	1.5	19
52	Detection of Denatonium Benzoate (Bitrex) Remnants in Noncommercial Alcoholic Beverages by Raman Spectroscopy. Journal of Forensic Sciences, 2014, 59, 1358-1363.	1.6	19
53	Anatomy of noise in quantitative biological Raman spectroscopy. Bioanalysis, 2014, 6, 411-421.	1.5	26
54	Quality assessment of ZnO-based varistors by 1/f noise. Microelectronics Reliability, 2014, 54, 192-199.	1.7	8

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55	Performance analysis of the â€œintelligentâ€•Kirchhoff-Law-Johnson-Noise secure key exchange. International Journal of Modern Physics Conference Series, 2014, 33, 1460368.	0.7	0
56	New approaches for improving selectivity and sensitivity of resistive gas sensors: A review. International Journal on Smart Sensing and Intelligent Systems, 2014, 7, 1-6.	0.7	0
57	Fluctuation enhanced gas sensing using UV irradiated Au-nanoparticle-decorated WO₃-nanowire films. International Journal on Smart Sensing and Intelligent Systems, 2014, 7, 1-5.	0.7	3
58	Enhancing capabilities of Atomic Force Microscopy by tip motion harmonics analysis. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2013, 61, 535-539.	0.8	0
59	Improving AFM Images with Harmonic Interference by Spectral Analysis. Microscopy and Microanalysis, 2012, 18, 186-195.	0.4	1
60	Problems of Varistor Quality Assessment During Exploitation. Metrology and Measurement Systems, 2012, 19, 395-404.	1.4	3
61	Investigation of Noise-Induced Instabilities in Quantitative Biological Spectroscopy and Its Implications for Noninvasive Glucose Monitoring. Analytical Chemistry, 2012, 84, 8149-8156.	6.5	44
62	Fluctuation Enhanced Gas Sensing at Modulated Temperature of Gas Sensor. International Journal on Measurement Technologies and Instrumentation Engineering, 2012, 2, 41-52.	0.3	0
63	Quality testing methods of foil-based capacitors. Microelectronics Reliability, 2012, 52, 603-609.	1.7	7
64	Low Current Transformer Utilizing Co-Based Amorphous Alloys. IEEE Transactions on Magnetics, 2012, 48, 1493-1496.	2.1	23
65	Low-frequency noise in ZnO varistor structures. , 2011, , .		1
66	Fluctuation-Enhanced Sensing for Biological Agent Detection and Identification. IEEE Nanotechnology Magazine, 2011, 10, 1238-1242.	2.0	12
67	Comparison of effectiveness of gas sensing by low frequency fluctuations in resistance and microbalance quartz gas sensors. , 2011, , .		1
68	Acoustic emission for detecting deterioration of capacitors under aging. Microelectronics Reliability, 2011, 51, 621-627.	1.7	13
69	Fluctuation-enhanced scent sensing using a single gas sensor. Sensors and Actuators B: Chemical, 2011, 157, 85-91.	7.8	14
70	Fluctuation-enhanced gas sensing in practice. , 2011, , .		6
71	Portable Raman spectrometer - design rules and applications. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2011, 59, 325-329.	0.8	23
72	Detection of illicit chemicals by portable Raman spectrometer. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2011, 59, 449-452.	0.8	0

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73	HAZARDOUS GASES DETECTION BY FLUCTUATION-ENHANCED GAS SENSING. Fluctuation and Noise Letters, 2010, 09, 359-371.	1.5	34
74	Algorithms of Chemicals Detection Using Raman Spectra. Metrology and Measurement Systems, 2010, 17, 549-559.	1.4	39
75	Scent Emitting Multimodal Computer Interface for Learning Enhancement. , 2010, , .		3
76	Pitting corrosion characterization by electrochemical noise measurements on asymmetric electrodes. Journal of Solid State Electrochemistry, 2009, 13, 1681-1686.	2.5	29
77	Classification of high-voltage varistors into groups of differentiated quality. Microelectronics Reliability, 2009, 49, 1483-1490.	1.7	4
78	Quality assessment of varistor ZnO structures by resonant ultrasound spectroscopy. Insight: Non-Destructive Testing and Condition Monitoring, 2009, 51, 262-265.	0.6	5
79	Electrochromic foil-based devices: Optical transmittance and modulation range, effect of ultraviolet irradiation, and quality assessment by 1/f current noise. Thin Solid Films, 2008, 516, 5921-5926.	1.8	40
80	Application of 1/f current noise for quality and age monitoring of electrochromic devices. Solar Energy Materials and Solar Cells, 2008, 92, 914-918.	6.2	11
81	Advanced Agent Identification With Fluctuation-Enhanced Sensing. IEEE Sensors Journal, 2008, 8, 706-713.	4.7	42
82	Resonant ultrasonic spectroscopy in high-voltage varistor diagnostics. , 2008, , .		1
83	Low-frequency current noise in electrochromic devices. Smart Materials and Structures, 2008, 17, 025005.	3.5	4
84	Novel Applications of Noise in Sensing and Communications. AIP Conference Proceedings, 2007, , .	0.4	0
85	Fluctuation-enhanced sensing. , 2007, , .		1
86	Oxide-based electrochromics for energy efficient buildings: materials, technologies, testing, and perspectives. Journal of Physics: Conference Series, 2007, 93, 012021.	0.4	5
87	Resistance noise in TiO₂-based thin film gas sensors under ultraviolet irradiation. Journal of Physics: Conference Series, 2007, 76, 012056.	0.4	19
88	On the selectivity of nanostructured semiconductor gas sensors. Physica Status Solidi (B): Basic Research, 2007, 244, 4331-4335.	1.5	28
89	On Electrochemical Noise Analysis for Monitoring of Uniform Corrosion Rate. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 2018-2023.	4.7	17
90	Quality assessments of electrochromic devices: the possible use of 1/f current noise. Ionics, 2007, 13, 179-182.	2.4	6

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91	The Measurement Setup for Gas Detection by Resistance Fluctuations of Gas Sensors. , 2006, , .		5
92	Novel Method of Local Corrosion Events Characterization by Electrochemical Noise Analysis. , 2006, , .		0
93	Comparison of classical and fluctuation-enhanced gas sensing with PdxWO3 nanoparticle films. Sensors and Actuators B: Chemical, 2006, 113, 310-315.	7.8	53
94	Evaluation of reinforcement corrosion rate in concrete structures by electrochemical noise measurements. Russian Journal of Electrochemistry, 2006, 42, 546-550.	0.9	8
95	METHODS OF ELECTROCHEMICAL NOISE ANALYSIS FOR INVESTIGATION OF CORROSION PROCESSES. Fluctuation and Noise Letters, 2006, 06, R1-R9.	1.5	26
96	The Measurement Setup for Gas Detection by Resistance Fluctuations of Gas Sensors. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	0
97	Novel Method of Local Corrosion Events Characterization by Electrochemical Noise Analysis. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	0
98	Correlation between destruction of the metal surface caused by pitting corrosion and intensity of the observed electrochemical noise (Invited Paper). , 2005, , .		0
99	Higher-order spectra for harmonics detection in nonlinear systems at presence of Gaussian noise. , 2005, 5846, 70.		0
100	Gas sensing by thermoelectric voltage fluctuations in SnO nanoparticle films. Sensors and Actuators B: Chemical, 2005, 106, 708-712.	7.8	33
101	Detecting harmful gases using fluctuation-enhanced sensing with Taguchi sensors. IEEE Sensors Journal, 2005, 5, 671-676.	4.7	35
102	Gas sensing by resistance fluctuations in Pd x WO 3 nanoparticle films. , 2004, 5472, 191.		0
103	HIGHER-ORDER SPECTRA IN NANOPARTICLE GAS SENSORS. Fluctuation and Noise Letters, 2004, 04, L597-L603.	1.5	9
104	Uniform corrosion monitoring of carbon steel in concrete. , 2004, 5472, 333.		0
105	Resistance noise higher-order spectrums in nanoparticle gas sensors. , 2004, , .		0
106	Nonlinearity of electrochemical noise caused by pitting corrosion. Journal of Electroanalytical Chemistry, 2003, 545, 59-63.	3.8	24
107	Application of nonlinearity measures to chemical sensor signals. , 2003, , .		3
108	Fluctuation-enhanced chemical sensing. , 2003, 5115, 377.		2

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109	Electrochemical noise analysis methods for the investigation of corrosion processes. , 2003, 5115, 86.		2
110	The stationarity characteristics of electrochemical current noise. Anti-Corrosion Methods and Materials, 2002, 49, 27-32.	1.5	1
111	Pitting corrosion in steel and electrochemical noise intensity. Electrochemistry Communications, 2002, 4, 388-391.	4.7	39
112	Detection of random transients caused by pitting corrosion. Electrochimica Acta, 2002, 47, 1297-1303.	5.2	27
113	ON THE STATISTICAL ANALYSIS OF NOISE IN CHEMICAL SENSORS AND ITS APPLICATION FOR SENSING. Fluctuation and Noise Letters, 2001, 01, L147-L153.	1.5	39