

MSS References

(Olfactory system, Electronic nose, Odor sensing)

The list of references below is not exhaustive. If your paper is missing, you are cordially invited to send it to us at info@nanosensors.com.

2017:

- K. Shiba, R. Tamura, G. Imamura, and G. Yoshikawa, "Data-driven nanomechanical sensing: specific information extraction from a complex system", *Scientific Reports* 7, Article number: 3661 (2017) DOI: 10.1038/s41598-017-03875-7
- (Article in Japanese) 今村 岳, 柴 弘太, 吉川 元起, 「人工嗅覚実現に向けた総合的研究開発」 *Oyo Buturi* vol. 86 No. 2 (2017), p. 127 ISSN 0369-8009
- I. Osica, G. Imamura, K. Shiba, Q. Ji, L. Kumar Shrestha, J. P. Hill, K. J. Kurzydłowski, G. Yoshikawa, and K. Ariga, "Highly Networked Capsular Silica–Porphyrin Hybrid Nanostructures as Efficient Materials for Acetone Vapor Sensing", *ACS Appl. Mater. Interfaces*, 2017, 9 (11), pp 9945–9954 DOI: 10.1021/acsami.6b15680
- I. Osica, A.F.A.A. Melo, G. Imamura, K. Shiba, Q. Ji, J. P. Hill, F. Crespilho, K.J. Kurzydłowski, G. Yoshikawa, K. Ariga, "Fabrication of Silica-Protein Hierarchical Nanoarchitecture with Gas-Phase Sensing Activity", *J. of Nanosci. and Nanotec.*, Vol.17, No.8 (2017) pp. 5908-5917 DOI: 10.1166/jnn.2017.14388

2016:

- H. P. Lang, F. Loizeau, A. Hiou, J.-P. Rivals, P. Romero, T. Akiyama, Ch. Gerber and E. Meyer, "Piezoresistive Membrane Surface Stress Sensors for Characterization of Breath Samples of Head & Neck Cancer Patients", *Sensors (Basel)* 2016 Jul; 16(7): 1149. DOI: 10.3390/s16071149
- G. Imamura, K. Shiba, G. Yoshikawa, "Finite Element Analysis on Nanomechanical Sensing of Cellular Forces", *Analytical Sciences* 32 11 1189 1194 DOI: 10.2116/analsci.32.1189
- G. Imamura, K. Shiba, G. Yoshikawa, "Smell identification of spices using nanomechanical membrane-type surface stress sensors", *Jap. J. of APPLIED PHYSICS*. 55 [11] (2016) 1102B3-1 DOI: 10.7567/jjap.55.1102b3

2015:

- F. Huber, H.P. Lang, J. Zhang, D. Rimoldi, Ch. Gerber, "Nanosensors for cancer detection", *Swiss Med Wkly*. 2015 Feb 9;145:w14092. DOI: 10.4414/smw.2015.14092.
- F. Loizeau, T. Akiyama, S. Gautsch, P. Vettiger, G. Yoshikawa, N. F. de Rooij, "Comparing membrane- and cantilever-based surface stress sensors for reproducibility", *SENSORS AND ACTUATORS A-PHYSICAL*. 228 (2015) 9 DOI: 10.1016/j.sna.2015.02.039

2014:

- (Ph.D Thesis) F. Loizeau, *Microfabricated Sensor Arrays for Life Science Applications*, <https://infoscience.epfl.ch/record/197077?ln=en>, DOI: 10.5075/epfl-thesis-6100

- R. J. S. Guerrero, F. Nguyen, G. Yoshikawa, “Real-time gas identification on mobile platforms using a nanomechanical membrane-type surface stress sensor”, EPJ TECHNIQUES AND INSTRUMENTATION. 1 [1] (2014) 9(1) DOI: 10.1140/epjti/s40485-014-0009-z
- G. Yoshikawa, C. J. Y. Lee, K. Shiba, “Effects of Coating Materials on Two Dimensional Stress-Induced Deflection of Nanomechanical Sensors”, J. of NANOSCIENCE AND NANOTECHNOLOGY. 14 [4] (2014) 2908 DOI: 10.1166/jnn.2014.8604
- (in Japanese) G. Yoshikawa, “Nanomechanical Membrane-Type Surface Stress Sensor (MSS)”, J. of THE SURFACE SCIENCE SOCIETY OF JAPAN (表面科学). 35 [10] (2014) 571 DOI: 10.1380/jssj.35.571

2013:

- G. Yoshikawa, F. Loizeau, C. J. Y. Lee, T. Akiyama, K. Shiba, S. Gautsch, T. Nakayama, P. Vettiger, N. F. de Rooij, M. Aono, “Double-side-coated nanomechanical membrane-type surface stress sensor (MSS) for one-chip-one-channel setup”, Langmuir. 29 [24] (2013) 7551 DOI: 10.1021/la3046719

2012:

- F. Loizeau, T. Akiyama, S. Gautsch, P. Vettiger, G. Yoshikawa, N. de Rooij, “Membrane-Type Surface Stress Sensor with Piezoresistive Readout”, Procedia Engineering 47 (2012) 1085 – 1088 DOI: 10.1016/j.proeng.2012.09.339
- G. Yoshikawa, T. Akiyama, F. Loizeau, K. Shiba, S. Gautsch, T. Nakayama, P. Vettiger, N. F. de Rooij, M. Aono, “Two dimensional array of piezoresistive nanomechanical Membrane-type Surface Stress Sensor (MSS) with improved sensitivity”, Sensors (Basel). 2012 Nov 16; 12(11):15873-87. DOI: 10.3390/s121115873

2011:

- G. Yoshikawa, T. Akiyama, S. Gautsch, P. Vettiger, and H. Rohrer, “Nanomechanical Membrane-type Surface Stress Sensor”, Nano Lett., 2011, 11 (3), pp 1044–1048 DOI: 10.1021/nl103901a