



SENSORS AND ACTUATORS A: PHYSICAL

An international journal devoted to research and development of physical transducers

AUTHOR INFORMATION PACK

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DESCRIPTION

Sensors and Actuators A: Physical brings together multidisciplinary interests in one journal entirely devoted to disseminating information on all aspects of research and development of **solid-state devices** for transducing **physical signals**. *Sensors and Actuators A: Physical* regularly publishes original papers, letters to the [Editors](#) and from time to time invited review articles within the following device areas:

- **Fundamentals and Physics**, such as: classification of effects, physical effects, measurement theory, modelling of sensors, measurement standards, measurement errors, units and constants, time and frequency measurement. Modeling papers should bring new modeling techniques to the field and be supported by experimental results.
- **Materials and their Processing**, such as: piezoelectric materials, polymers, metal oxides, III-V and II-VI semiconductors, thick and thin films, optical glass fibres, amorphous, polycrystalline and monocrystalline silicon.
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- **Mechanical sensors**, such as: metallic, thin-film and semiconductor strain gauges, diffused silicon pressure sensors, silicon accelerometers, solid-state displacement transducers, piezo junction devices, piezoelectric field-effect transducers (PiFETs), tunnel-diode strain sensors, surface acoustic wave devices, silicon micromechanical switches, solid-state flow meters and electronic flow controllers.
- **Thermal sensors**, such as: platinum resistors, thermistors, diode temperature sensors, silicon transistor thermometers, integrated temperature transducers, PTAT circuits, thermocouples, thermopiles, pyroelectric thermometers, quartz thermometers, power transistors and thick-film thermal print heads.
- **Magnetic sensors**, such as: magnetoresistors, Corbino disks, magnetodiodes, Hall-effect devices, integrated Hall devices, silicon depletion-layer magnetometers, magneto-injection transistors, magnistors, lateral magnetotransistors, carrier-domain magnetometers, MOS magnetic-field sensors, solid-state read and write heads.

- **Micromechanics**, such as: research papers on actuators, structures, integrated sensors-actuators, microsystems, and other devices or subdevices ranging in size from millimetres to sub-microns; micromechatronics; microelectromechanical systems; microoptomechanical systems; microchemomechanical systems; microrobots; silicon and non-silicon fabrication techniques; basic studies of physical phenomena of interest to micromechanics; analysis of microsystems; exploration of new topics and materials related to micromechanics; microsystem-related problems like power supplies and signal transmission, microsystem-related simulation tools; other topics of interest to micromechanics.

- **Interface electronics**: electronic circuits which are designed to interface directly with the above transducers and which are used for improving or complementing the characteristics of these devices, such as linearization, A/D conversion, temperature compensation, light-intensity compensation, current/frequency conversion and microcomputer interfacing.

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Sensors and Actuators A brings together multidisciplinary interest in one journal entirely devoted to disseminating information on all aspects of research and development of solid-state devices for transducing physical signals. Sensors and Actuators A regularly publishes original papers, letters to the Editors and review articles within the following device areas:

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Materials and their Processing such as: piezoelectric materials, polymers, metal oxides, III Vand II VI semiconductors, thick and thin films, optical glass fibres, amorphous, polycrystalline and monocrystalline silicon.

Optoelectronic sensors such as: photovoltaic diodes, photoconductors, photodiodes, phototransistors, position-sensitive photodetectors, optoisolators, photodiodearrays, charge-coupled devices, light-emitting diodes, injection lasers and liquidcrystal displays.

Mechanical sensors such as: metallic, thin-film and semiconductor strain gauges, diffused silicon pressure sensors, silicon accelerometers, solid-state displacement transducers, piezo junction devices, piezoelectric field-effect transducers (PiFETs), tunnel-diode strain sensors, surface acoustic wave devices, silicon micromechanical switches, solid-state flow meters and electronic flow controllers.

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Sensor Systems and Applications such as: sensor buses, multiple-sensor systems, sensor networks, voting systems, telemetering, sensor arrays, and automotive, environmental, monitoring and control, consumer, medical, alarm and security, robotic, nautical, aeronautical and space measurement systems.

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Examples:

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[1] J. van der Geer, J.A.J. Hanraads, R.A. Lupton, The art of writing a scientific article, *J. Sci. Commun.* 163 (2010) 51–59.

Reference to a book:

[2] W. Strunk Jr., E.B. White, *The Elements of Style*, fourth ed., Longman, New York, 2000.

Reference to a chapter in an edited book:

[3] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), *Introduction to the Electronic Age*, E-Publishing Inc., New York, 2009, pp. 281–304.

Reference to a website:

[4] Cancer Research UK, Cancer statistics reports for the UK. <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>, 2003 (accessed 13 March 2003).

Reference to a dataset:

[dataset] [5] M. Oguro, S. Imahiro, S. Saito, T. Nakashizuka, Mortality data for Japanese oak wilt disease and surrounding forest compositions, *Mendeley Data*, v1, 2015. <https://doi.org/10.17632/xwj98nb39r.1>.

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antireflection
artifact
band bending
bandgap
bandwidth
co-evaporate
cross section
cross-sectional
crosstalk
feedback (adj.)

flat-band (adj.)
Gaussian
Kirchhoff
lifetime
linewidth
microelectronics
micromechanics midpoint
multilayer
multi-target
non-crystalline
n-type (adj.)
open-circuit (adj.)
photoemission
photogenerate
photoresist
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printout
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reverse-bias (adj.)
rod-like (adj.)
semicontinuous
short-circuit (adj.)
single-crystal (adj.)

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