



# 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.
- **Optoelectronic sensors**, such as: photovoltaic diodes, photoconductors, photodiodes, phototransistors, positron-sensitive photodetectors, optoisolators, photodiode arrays, charge-coupled devices, light-emitting diodes, injection lasers and liquid-crystal 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.
- **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.

- **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.

## AUDIENCE

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Academic and Industrial Researchers in Applied Physics and Instrument Development

## IMPACT FACTOR

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## GUIDE FOR AUTHORS

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### *Aims and Scope*

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**Optoelectronic sensors** such as: photovoltaic diodes, photoconductors, photodiodes, phototransistors, position-sensitive photodetectors, optoisolators, photodiode arrays, charge-coupled devices, light-emitting diodes, injection lasers and liquid crystal 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, telemetry, sensor arrays, and automotive, environmental, monitoring and control, consumer, medical, alarm and security, robotic, nautical, aeronautical and space measurement systems.

### *Types of paper*

Sensors and Actuators A: Physical, welcomes full length research papers, review articles, and short communications and letters to the Editor. Full length papers should in general not exceed 5000 words or about 12 printed pages including tables and diagrams. Short communications and letters to the Editor should not exceed 2000 words or 4 printed pages. The author should remember that the journal is international and read widely by those whose first language may be other than that in which the paper is written. Clarity and precision are best achieved by the use of short words and simple sentences. Papers which do not satisfy the English language requirements will not be accepted.

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This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. [More information on types of peer review](#).

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

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[4] 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.

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

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aging  
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  
p-type (adj.)  
printout  
readout  
reverse-bias (adj.)  
rod-like (adj.)  
semicontinuous  
short-circuit (adj.)  
single-crystal (adj.)

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