

Lab on a Chip, 2004

Miniaturisation for Chemistry and Biology & Bioengineering

Lab on a Chip (LOC) provides a unique forum for the publication of significant and original work related to miniaturisation (on or off chips) at the micro- and nano-scale across a variety of disciplines including: chemistry, biology, bioengineering, physics, electronics, clinical/medical science, chemical engineering and materials science, which is likely to be of interest to the multidisciplinary community that the journal addresses. Critical/tutorial reviews, cutting-edge primary papers, communications and technical notes are all welcome. All manuscripts should be written such that they are accessible to scientists in all disciplines associated with the subject, across both academic and industrial sectors. All article types should highlight, at the end of the abstract, the novel features and explain the significance of the work and likely impact on relevant (micro- and nano-) lab-on-a-chip communities.

Submissions from academic and industrial scientists involved with fundamental research, development or applications for micro- and nano-systems, technologies and devices in the following disciplines are sought and encouraged (LOC also deals with off-chip systems):

- Chemical and biological micro-/nano-reactors for: chemical and bio-synthesis, high-throughput synthesis, combinatorial chemistry, generation of hazardous chemicals at point-of-requirement, safer synthesis
- Micro-/nano-fabrication technologies (in silicon, plastics, glass and other materials) including laser micro-/nano-fabrication, photochemistry, micro-/nano-photolithography, micro-/nano-machining etc
- Monitoring in micro-/nano-reactors
- Environmental monitoring
- Micro-/nano-electronics and micro-/nano-robotics
- Micro-/nano-mechanics and engineering in chip-based systems
- Biotechnology and its applications on the micro-/nano-scale
- Polynucleotide arrays for genetic sequence analysis
- Genomics, proteomics, celloomics, DNA probes and PCR
- High-speed catalysis in miniaturised systems
- Micro-/nano-technical interfaces and interconnections
- Fluidics, fluids for micro-/nano-systems, their mobilisation and control
- Medical diagnostics and screening, point-of-care clinical analyses, disease detection, drug delivery, implantable devices
- Micro total analytical systems (uTAS) its components and applications, nanochips, nanodevices
- Sample preparation in micro-/nano-structured devices, nanoencapsulation, nanotubes
- Micro- and nanochip-based separation systems
- Micro-/nano-optics and on-chip detection systems
- Electrochemistry on a chip, electrophoresis
- Micro-/nano-sensor systems
- Reduction of toxic wastes/increases in efficiency, reliability and performance
- Waste minimisation (decreases in power, reagent consumption, time and cost)

Organisation of manuscripts

Full papers/communications/reviews—typescripts should be single sided, double spaced throughout, and should usually be organised as follows:

- 40 word contents entry indicating the novel aspects/significance of the article
- Title and author information
- Summary/abstract(50–250 words)—setting out the main objectives and results in a clear and interesting way
- Introduction – a concise overview of the context of the work reported and its relevance/significance for miniaturisation
- Main body of article (aim of investigation; experimental; results and discussion), with appropriate section headings
- Acknowledgements
- References
- Tables and table captions
- Figure captions and scheme captions
- Figures and schemes (guidelines for artwork are available at www.rsc.org/is/journals/illustrations/illustrations.htm)

Please supply the following to the appropriate editor—

- The manuscript as a single word file or PDF with figures embedded. This file will be used for online refereeing where possible. (see www.rsc.org/submissions)
- *Text only contents entry (about 30 words) indicating the **novelty, significance and relevance of your work to the miniaturisation and/or the general scientific community.***
- Any other relevant data for deposition
- Fax and e-mail details for correspondence
- Copies of any relevant preliminary Communications
- Suggested referees (optional)
- Please highlight up to a maximum of 5 key references by the award of single or double “stars” (*, **) with the highest rating (two stars) reflecting the most important in the author’s judgement. **Starred references (only) should be amplified by brief comments (two or three sentences) that summarise its content and/or highlight its particular importance or relevance.** For example, “This paper was the first to highlight the potential of miniaturisation for organic synthesis”

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