

**There will be 4
Special Issues of the Journal Micro and Nano Engineering (MNE)
published that include selected papers from the
49th Micro and Nano Engineering conference [MNE2023](#)**

The 4 special editions are called:

- 1. Advanced Micro and Nano Patterning 2023 dedicated to the memory of nanopatterning pioneer Michael Hatzakis**
- 2. Sustainable Micro- and Nanofabrication 2023**
- 3. Advanced Micro and Nano Devices and Systems for Life Sciences, Biology, Environment & Agrofood**
- 4. Advanced Micro and Micro Devices and Systems 2023**

Accepted papers will be freely available on ScienceDirect as OPEN ACCESS papers without article processing charges. This is a special agreement between the MNE2023 conference and the MNE journal.

For more information on the submission and on the topics, see below.

Paper submission deadline: November 19th, 2023

**Information on the journal:
www.sciencedirect.com/journal/micro-and-nano-engineering**

Advanced Micro and Nano Patterning 2023 dedicated to the memory of nanopatterning pioneer Michael Hatzakis

Short title: NanoPattern 2023-MikeHatzakis

including selected papers from the 49th Micro and Nano Engineering conference [MNE2023](#)

The NanoPatterning special issue for 2023 is dedicated to the memory of Mike Hatzakis, a pioneer in the field, an IBM fellow and US Academy of Engineering member, a director of the Institute of Microelectronics in NCSR Demokritos in Greece, an inventor of e-beam lithography and of the famous lift-off process back in the early 1970s. Mike Hatzakis passed away in February 2023. More information about Mike can be found [here](#). This issue is an ‘open call’. This means that, while including selected papers presented at MNE2023, it is also open to other authors and to experts in the field who wish to honour the memory of Michael Hatzakis with a research article, an opinion paper, or a review paper. This special issue includes topics mainly related to semiconductor research and industry and in addition to other research and manufacturing sectors where lithography and pattern transfer are important. Contributions can cover the lithographic materials, lithographic processes, metrology, and advanced etching and patterning. Contributions should be mainly concentrated on a single process/method from the list below:

- **EUV and Optical Lithography**
- **Electron and Ion Beam Lithography**
- **Nanoimprint Lithography, including R2R nanoimprint, Soft Lithography**
- **Mask or Template Fabrication, Mask-Less Lithography, Scanning Probe Techniques**
- **Materials for Micro and Nanolithography**
- **Directed Self-assembly**
- **Novel Nanolithography and Nanopatterning Methods**
- **Advanced Plasma Etching, Plasma Ashing**
- **Nanometrology, Inspection and Process Control**
- **Lithography and Etching Simulation**
- **History of Nanopatterning, Reviews of Aspects of the Field, Opinions on the Direction of the Field, as well as other Aspects related to Michael Hatzakis’ Contributions**

Manuscript submission deadline: November 19th 2023

Your paper and associated supplementary information should comprise a complete, novel, and full description of your work. Manuscripts of the special issue will be submitted and reviewed via the online Elsevier Editorial System (EES). To be part of MNE2023 special issues, you need to choose MNE journal. Articles will then be processed and published with the standard Elsevier publishing timeline for each individual manuscript following acceptance. **Accepted papers will be freely available on ScienceDirect as OPEN ACCESS papers WITHOUT any article processing charges. This is a SPECIAL agreement between MNE2023 conference and MNE journal.**

Guest Editors

- Dr. Jens Bolten (AMO GmbH)
- Prof. Dieter Kern (University of Tübingen)
- Prof. Francesco Perez-Murano (IMB-CNM, CSIC)

Instructions for authors

- The standard submitted manuscripts are **regular articles** of MNE journal (4-6 pages).
- **Review papers (7-10 pages) are encouraged from invited/plenary speakers and leading members of the community.** If you are not an MNE invited speaker and you **wish to submit a review, please contact [Evangelos Gogolides](#)** (Editor-in-Chief, of MNE journal) or **[Max C. Lemme](#)** (MNE 2023 Program Chair) with a proposal and outline.
- **News and opinions** papers are also welcome from plenary/invited speakers. Again, please contact the Editor-in-Chief or the MNE 2023 Program Chair with a proposal.
- **Highly novel work that deserves rapid dissemination** can be submitted as an **accelerated publication** (up to 4 pages) and will be given high priority. In that case, please declare that in your cover letter and explain the reasons.
- For all publications, we encourage you to supply additional information, audios/videos, etc. as on-line supplementary material to appear on the web but not in the printed version. Your supplementary material will be available directly from ScienceDirect or Scopus
- For general enquiries, please contact Max C. Lemme, MNE Program Chair.
- Please submit papers directly using the **[MNE journal submission web page](#)**. Select the appropriate special issue **NanoPattern 2023 - Mike Hatzakis** and the correct file type (regular paper, review paper, etc.). **The submission opens on October 7th 2023 and closes after the submission deadline.**

Please note that the special issue papers undergo the same high-standard review process as any other MNE paper. At least two reviews need to be in agreement per paper before a decision, and the typical rejection rate is 50-60%. Therefore, **please make sure that both the technical content of your paper and your presentation style and language are of high quality** and that the content is novel, unpublished, and not being considered for publication elsewhere. ***Do NOT submit work that is not complete yet, or has partially been published before, even if that work is presented in the conference.*** Please also note that online software is used to check plagiarism and duplicate publications. Please check the [author guidelines](#).

Sustainable Micro- and Nanofabrication 2023

Short title: Sustainable-NanoFab 2023

**including selected papers from the
49th Micro and Nano Engineering conference [MNE2023](#)**

The sustainability of traditional nanofabrication and ecological concerns are at the heart of the MNE conference community and the MNE journal. A sustainability committee within the MNE conference has been reevaluating the traditional top-down nanofabrication methods already before the COVID outbreak. This year, the traditional special issue on Micro- and Nanofabrication following the MNE conference embraces the sustainability dimension and eco-friendly approaches of micro- and nanofabrication. This issue is an ‘open call’. This means that, while including selected papers presented at MNE2023, it is also open to other authors. This special issue aims at presenting novel approaches or improvements in the fabrication of nanostructures, surfaces, or nanomaterials in 0D, 1D, 2D, or 3D, including biomimetic architectures. The special issue also covers original research that demonstrates (multi)functionality and other specific properties of the nanostructures or surfaces. Topics include but are not limited to:

- **Nanofabrication, particularly addressing sustainability, energy efficiency, recycling of water and chemicals, etc**
- **Micro- and Nanomanufacturing addressing also sustainability, energy efficiency, recycling of water and chemicals, etc**
- **Plasma surface engineering and other dry techniques, addressing also gas abatement and fluorocarbon gas elimination**
- **3D nanomanufacturing, 3D microprinting and rapid prototyping**
- **“Smart” (multi) functional surfaces with wetting, optical and / or biological functionality, their sustainable fabrication, including PFAS-free approaches**
- **Bioinspired approaches to nanofabrication**
- **2D materials**
- **Metamaterials**
- **Nanometrology of structures and surfaces**
- **Sustainable Semiconductor Fabrication in light of the Chips Act in Europe.**
- **Artificial Intelligence in Aid of sustainable manufacturing and material design**

Manuscript submission deadline: November 19th 2023

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Advanced Micro and Nano Devices and Systems for Life Sciences, Biology, Environment & Agrofood

Short title: NanoLife 2023

including selected papers from the
49th Micro and Nano Engineering Conference [MNE2023](#)

This issue is an ‘open call’. This means that, while including selected papers presented at MNE2023, it is also open to other authors. Contributions to this topic should address biological, bioanalytical, and analytical problems, health, environment, food and agrofood monitoring and safety, and show how micro/nano engineering can provide the appropriate solution, starting from microfluidics, scaffolds, biosensors, all the way to BioMEMS, lab on a chip and organ-on-a-chip. Targeted areas should include one or more of the following:

- **Micro & Nanofluidics**
- **Chemical Sensors**
- **BioSensors & BioMEMS**
- **Lab on Chip**
- **Cell on Chip, Organ on Chip**
- **Micro Total Analysis Systems (microTAS)**
- **Applications in health, environmental monitoring, food safety or agrofood**

Manuscript submission deadline: November 19th 2023

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Advanced Micro and Micro Devices and Systems 2023

Short title: NanoDevices 2023

including selected papers from the
49th Micro and Nano Engineering conference [MNE2023](#)

This issue is an ‘open call’. This means that, while including selected papers presented at MNE2023, it is also open to other authors. This topic encompasses the use of micro/nanofabrication methods for demonstrating new device and system solutions for applications in Nanoelectronics, Photonics, Plasmonics, Physical Sensing and Energy Harvesting. The solutions can be in the form of devices or complete microsystems. Contributions should not only describe the fabrication procedure but should also include the demonstration of the application and integration steps. This topic includes but is not limited to:

- **Nanoelectronic Devices, including low power and energy efficient solutions**
- **Photonic and Plasmonic Devices**
- **Nanomagnetism, Data Storage**
- **Physical Sensors, including low and zero-power**
- **Energy Harvesting SeVICES**
- **Paper Electronics, Flexible Electronics**
- **Micro & Nano Mechanical Systems (MEMS, NEMS)**
- **Integration and Packaging**

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