

Laser Micro-/Nanoengineering		
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Summary		
C4.IV	<p>Demands in high-tech industries are growing for specialized prototype and high-throughput devices with micro- and nano-scaled structures including fluidic, biologic, chemical, electronic, mechanical or photonic features. The aim of this Symposium is to bring together scientists and engineers working on laser-based processes on micro- and nanometer scale for advanced applications, addressing the current scientific and technological advances related to laser-based technology for micro- and nanoengineering. The papers will be oriented to technical or industrial developments as well as basic research studies describing applications in different technological fields. Furthermore, the basic interactions of laser beams with materials and the influence of such interactions in the mechanisms governing the fabrication processes of the surface micro/nano structures will be discussed. Topics of this symposium will cover the following subjects (but not limited to): fundamental aspects of laser micro/nano processing (dynamics, modeling, and simulation), process monitoring and control, direct writing process, ultra-short pulse laser processing, VUV laser processing, surface treatment (texturing, micro/nano patterning, cleaning, annealing, modification), micro-machining, 3D micro- and nano-fabrication, laser interference patterning, laser transfer techniques, laser drilling and cutting, micro-welding/joining, micro-forming, marking and trimming, manufacturing of micro devices and systems, laser synthesis of nano- and micro-materials, medical and biological applications, optics and systems for laser microprocessing, photonic structures, laser devices, and photochemistry.</p>	