

## Topical Collection

# Microdevices and Applications Based on Advanced Glassy Materials

### Message from the Collection Editors

Microtechnology has transformed our world since the last century, when silicon microelectronics revolutionized sensor, control and communication areas, with applications ranging from domotics to biomedicine. The present century, however, is also seeing an accelerating pace of innovation in glassy materials, in particular for optoelectronics and photonics. For instance, glass-ceramics, which effectively combine the properties of an amorphous matrix with those of micro- or nano-crystals, offer a significant design flexibility to chemists, physicists and engineers, enabling the conception and implementation of advanced microdevices. The contemporary availability of microfabrication technologies, such as direct laser writing or 3D printing, alongside common processes like deposition, lithography and etching, facilitates the development of novel or advanced microdevices based on glassy materials. This Topical Collection aims to collect new contributions related to glassy materials and their fabrication technologies, device design and fabrication, characterization, and potential applications. Papers in all areas of glass, glass-ceramic, and polymer microdevices will be considered.

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### Collection Editors

Dr. Giancarlo C. Righini  
Dr. Luigi Sirleto  
Dr. Francesco Enrichi

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## Micromachines

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