EUROMAT 2019 / Area A

SYMPOSIUM: A7

Title: Materials for Organic Electronics		
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Abstract

Organic electronics is a fast-growing technological field in which innovative devices based on organic materials perform functions traditionally accomplished by conventional semiconductors. These devices have already started to enter the commercial world as thin mobile devices, high-resolution and flexible displays, and photovoltaic cells. Organic materials also show exciting prospects for new technologies such as health monitoring and bioelectronics.

Despite the tremendous progress achieved, some fundamental challenges still need to be addressed, such as the design of new, better performing organic materials, the understanding of physico-chemical and physical properties and processes, and the control of nano/microscale material morphology and structure.

This symposium aims to bring together key researchers to present and discuss novel approaches and concepts pertaining to the field of organic materials for organic electronics, covering topics such as:

- Design and synthesis of pi-conjugated materials: small molecules, oligomers and polymers
- Organic semiconductors and dyes
- Structure-performance correlation studies
- Polymorphism
- Organic semiconductor deposition methods
- Low and ultra-low bandgap polymers
- Photophysics: from solution to solid state
- Aggregation-induced emission
- Thermally activated delayed fluorescence (TADF)
- Electroluminescent materials for OLEDs
- Stimulated emission and lasing
- Charge transport in organic semiconductors
- Materials for organic spintronics, organic radicals
- Donor-acceptor materials for organic photovoltaics and photodetectors
- Photoinduced charge generation and charge transport in bulk heterojunctions

- Control of nano- and micro-structures
- Sensing and photodetectors
- Materials for biosensors and bioelectronics