

TACKLING GLOBAL CHALLENGES WITH ELECTROSPINNING

The contribution of CNR (Italy) in developing advanced technological solutions for a variety of applications

Electrospinning is internationally recognized as one of the key nanotechnologies of the future. It is currently the most economical, versatile and efficient technology for manufacturing structures successfully used in numerous applications (energy, sensors, medicine, textiles, filtration, packaging, agriculture) due to their large surface area, high and adjustable porosity (e.g. controlled release systems), modular robustness (combination of components) and ease of functionalization (encapsulation, blending, surface functionalization). The use of solvents and green methods as well as materials from waste from agro-industrial chains represents one of the last frontiers towards a sustainable approach.

One hundred years after the foundation of the CNR, the workshop aims to promote the versatility of this technology and the advances achieved in this regard by research in the CNR, encouraged by the birth in Italy of enterprises dedicated both to the development of customized equipment and functional materials for applications in both R&D and various fields (such as smart textiles, advanced filtration systems, sustainable packaging, cosmetics, slow-release biomedical gauze, etc.).

The workshop is part of the NANOINNOVATION2023 Conference.

As in previous editions, access to and participation in the event does not require any fee, but the online registration on the website is mandatory, both for the participants who will actively present, and for the auditors.

Nano Rome, 18-22 September
2023 Innovation
Conference & Exhibition

WORKSHOP Program, 22 September 2023, Rome,

<https://www.nanoinnovation2023.eu/home/index.php/programme/workshop/tackling-global-challenges-with-electrospinning>

<i>Chairs: Antonella Macagnano, Fabrizio De Cesare</i>			
SESSIONS	TIME	AUTHORS	TITLES
9:00-10:30 <i>Session 1</i> Challenges in Health and biomedicine	9:00-9:05	<i>Macagnano Antonella, IIA-CNR</i>	The contribution of CNR (Italy) in developing advanced technological solutions for a variety of applications
	9:05-9:35	<i>Zussman Eyal, TECHNION (Israel)</i>	Electrospinning: a bridge between nanotechnologies and bioinspired applications
	9:35-9:55	<i>Varesano Alessio, STIIMA-CNR</i>	Keratin-based nanofibres for biomedical applications and electrospun filter media
	9:55-10:15 10:15-10:30	<i>Bonadies Irene, IPCB-CNR</i> <i>Focarete Maria Letizia, UNIBO & SpinBOW</i>	The use of natural and bio-based polymers in electrospinning University-Industry cooperation. Functional electrospun polymeric nanofibers: from nanohybrid to bioactive materials
11:00-11:30	Coffee Break		
11:30-13:00 <i>Session 2</i> Challenges in Environment & Energy	11:30-11:50	<i>Macagnano Antonella, IIA-CNR</i>	Flexible strategies to design selective sensors for gaseous markers (MOSSA Project)
	11:50-12:10	<i>Figoli Alberto, ITM-CNR</i>	Toward a sustainable membrane fabrication by electrospinning
	12:10-12:30	<i>Stufano Paolo, NANOTEC-CNR</i>	Bio-based nano-composites for Energy conversion and storage
	12:30-12:45 12:45-13:00	<i>Linari Stefano, Linari Engineering Srl</i> <i>Lorenzoni Stefano, SKE Research Equipment Srl</i>	Design and fabrication of nanocomposites for biomedical and industrial applications Nanofibers technology: from lab to market
13:00-14:00	Lunch		
14:00-15:30 <i>Session 3</i> Challenges for a sustainable life	14:00-14:20	<i>Camposeo Andrea, NANO-CNR</i>	Networks of electrospun nanofibers for tunable light sources
	14:20-14:40	<i>De Cesare Fabrizio, IIA-CNR/UNITUS</i>	Tackling future food demand developing electrospun nanofibrous products for sustainable agriculture
	14:40-15:00	<i>Mari Massimo, IIA-CNR</i>	The electrospinning technology: a precious tool to innovate productive cycles, promote the eco-design of products and support the ecological transition.
	15:00-15:15	<i>Pellegrini Simona, Invenio Srl</i>	I find, I discover-INVENIO SRL: production of innovative, highly performing and eco-friendly electrospun materials
15:30-15:45	ROUND TABLES and GREETINGS		

Il Centenario del CNR è realizzato con il contributo della Presidenza del Consiglio dei Ministri e con il Patrocinio di Rai

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Conference Venue: Sapienza University of Rome,
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Conference WebSite: <https://www.nanoinnovation2023.eu/home/>