

## PROGRAM

Room Cavallerizza  
University of Turin  
Via Giuseppe Verdi, 9  
10124 – Torino, Italy

Thursday, December 16 <sup>th</sup>	
08:30 – 09.15	Registration
09:15 – 09:30	Opening Remarks
09:30 – 10:30	<i>Plenary Lecture P-1</i> <b>Growth of semiconducting oxide single crystals and epilayers</b> Roberto Fornari
10:30 – 11:00	Coffe break
SESSION T1 Fundamentals of nucleation and crystal growth: theory, modeling and experiments Chair: Prof. Silvia Rizzato	
11:00 – 11:30	<i>Invited Keynote T1-K1</i> <b>Simulation of aggregation phenomena in solution</b> Leonardo Lo Presti
11:30 – 12:00	<i>Invited Keynote T1-K2</i> <b>Modeling the kinetic-driven morphological evolution in the 3D epitaxy of semiconductor micro- and nano-structures</b> Roberto Bergamaschini
12:00 – 12:15	<i>T1 – O1</i> <b>Microdroplet Approach for Quantifying Nucleation Kinetics</b> Ruel Cedeno
12:15 – 12:30	<i>T1 – O2</i> <b>Crystal structure of a new polymorph of Sr<sub>2</sub>TiO<sub>4</sub> with tetrahedral titanium</b> Dorota Pulmannova
12:30 – 12:45	<i>T1 – O3</i> <b>Crystal growth of 4d perovskite ruthenium oxides: The case of Ca<sub>2</sub>RuO<sub>4</sub> and its current driven insulator to metal transition</b> Rosalba Fittipaldi
12:45 – 13:00	<i>T1 – O4</i> <b>Crystallization processes of spinel-like gallium oxide nanocrystals in germano-silicate bulk glassceramics and thin films</b> Roberto Lorenzi
13:00 – 14:00	Poster Session and Lunch
SESSION T2 Epitaxy of inorganic materials: fundamentals and applications Chair: Prof. Paola Prete	
14:00 – 14:30	<i>Invited Keynote T2-K1</i>

	<b>MOVPE self-assembly, growth modelling and nano-scale properties of III-V and II-VI compound semiconductor nanowires</b> Nicola Lovergine
14:30 – 14:45	<i>T2 – O1</i> <b>Telecom-wavelength InAs/InAlAs(111)A QDs with low fine structure splitting for quantum information applications</b> Stefano Sanguinetti
14:45 – 15:00	<i>T2 – O2</i> <b>Thermodynamic and kinetic effects on nucleation and growth of <math>\epsilon</math>/k- or <math>\beta</math>-Ga<sub>2</sub>O<sub>3</sub> by metal-organic vapour phase epitaxy</b> Roberto Fornari
15:00 – 15:15	<i>T2 – O3</i> <b>Characterization of CHAp synthesized via mild hydrothermal conditions: insight the carbonate defects</b> Andrea Cotellucci
15:15 – 15:30	<i>T2 – O4</i> <b>Lattice dynamics of low-dimensional materials studied by ultrafast electron diffraction</b> Giovanni Maria Vanacore
15:30 – 16:00	Coffe break
<b>SESSION T3</b> <b>Organic Based Materials</b> <b>Chair: Prof. Adele Sassella</b>	
16:00 – 16:30	<i>Invited Keynote T3-K1</i> <b>Self-organization of complete organic monolayers via sequential post-deposition annealing</b> Cristiano Albonetti
16:30 – 16:45	<i>T3 – O1</i> <b>Unveiling the robustness of porphyrin crystalline nanowires</b> Claudio Goletti
16:45 – 17:00	<i>T3 – O2</i> <b>Porphyrin nanocrystals dissolution at controlled pH</b> Gianlorenzo Bussetti
17:00 – 17:15	<i>T3 – O3</i> <b>Interface processes in electrolyte gated organic thin film transistors</b> Matteo Parmeggiani
17:15 – 17:30	<i>T3 – O4</i> <b>Active trap states in organic semiconducting thin films for the detection of ionizing radiation</b> Ilaria Fratelli
20:00	Social Dinner

Friday, December 17 <sup>th</sup>	
<b>SESSION T4</b> <b>Crystallization for the Industry</b> <b>Chair: Dr. Andrea Zappettini</b>	
09:00 – 09:30	<i>Invited Keynote T4-K1</i> <b>A novel 200mm silicon carbide epitaxial reactor for power devices: equipment and process prospective</b> Danilo Crippa
09:30 – 09:45	<i>T4 – O1</i> <b>Sol-gel deposition of Cu<sub>2</sub>XYs<sub>4</sub> thin-films with tunable bandgap as absorbers for photovoltaic applications</b> Giorgio Tseberlidis
09:45 – 10:00	<i>T4 – O2</i> <b>Tungsten-Tin solid solutions: synthesis, morphological, structural, electronic, and gas sensing properties</b> Ambra Fioravanti
10:00 – 10:15	<i>T4 – O3</i> <b>HP/HT syntheses: an ideal tool for multifunctional single-phase materials</b> Chiara Coppi
10:15 – 10:30	<i>T4 – O4</i> <b>Brown CIGS by ball milling: a suitable top cell for high efficient 4-T tandem solar cells</b> Elena Del Canale
10:30 – 10:45	<i>T4 – O5</i> <b>Crystal engineering meets host-guest chemistry: from solubility enhancement of agrochemicals to sunscreen photoprotection</b> Simone d'Agostino
10:45 – 11:15	Coffee break
<b>SESSION T5</b> <b>Crystal Growth in Biology</b> <b>Chair: Dr. Simona Fermani</b>	
11:15 – 11:45	<i>Invited Keynote T5-K1</i> <b>Protein Langmuir-Blodgett nanotemplates as a tool for protein crystallography</b> Eugenia Pechkova
11:45 – 12:00	<i>T5 – O1</i> <b>BSA-nanoparticles as innovative heterogeneous nucleant for protein crystallization</b> Silvia Fanti
12:00 – 12:15	<i>T5 – O2</i> <b>Deep Eutectic Solvents.</b> <b>A new opportunity for protein crystallization</b> Danilo Belviso

12:15 – 13:30	Poster Session and Lunch
<b>SESSION T6</b>	
<b>Crystal Growth for Environment and Health</b>	
<b>Chair: Prof. Giovanni Battista De Giudici</b>	
13:30 – 14:00	<i>Invited Keynote T6-K1</i> <b>Experimental and theoretical analysis of Biomineral-Biomolecules surface interactions</b> Gianfranco Ulian
14:00 – 14:30	<i>Invited Keynote T6-K2</i> <b>The applications of microbially-induced CaCO<sub>3</sub> crystals in the restoration of cultural heritage</b> Chiara Alisi
14:30 – 14:45	<i>T6 – O1</i> <b>Mollusk shell valorization: controlled mineral aggregates</b> Carla Triunfo
14:45 – 15:00	<i>T6 – O2</i> <b>Weathering and biomineralization processes mediated by microfungi in sulphide-rich waste-rock dumps</b> Pietro Marescotti
15:00 – 15:15	<i>T6 – O3</i> <b>Maghemite nanoparticles: synthesis, characterization and challenges</b> Gabriella Salviulo
15:15 – 15:30	<i>T6 – O4</i> <b>Morphology, crystal size, structure and stability of hydrozincite</b> Daniela Medas
15:30 – 15:45	<i>T6 – O5</i> <b>Gold functionalized nonwoven for biomedical applications: an easy method for in situ nucleation of Au-NPs</b> Valentina Sinisi
15:45 – 16:00	<i>T6 – O6</i> <b>Bioprecipitation of secondary minerals mediated by sulphate reducing bacteria (SRB) in the hyporheic zone of impacted mining area: preliminary study on the effect on metal mobility</b> Elisabetta Dore
16:00 – 16:30	Coffee break
16:30 – 17:00	Awards ceremony and concluding remarks