

EUROMAT 2019 / Area C: Processing

SYMPOSIUM: C8

Title: Interface Design and Modelling, Wetting and High-Temperature Capillarity		
Organizer	Institution	Contact email
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Abstract		
<p>This symposium is organized in order to host the summit of the scientific outcome worldwide in the areas of interface design and modelling, capillarity, and wetting phenomena at (predominantly but not exclusively) high temperatures. More specifically, it aims to be an international hub for exchanging ideas and presenting the most recent results in the field of surfaces and interfaces, of wetting and of capillarity in materials, materials processing, and capillarity in crystal growth. These fields will be tackled by both experimental and theoretical studies, which will enrich our knowledge in capillarity and wetting as well as they will emerge novel perceptions, new equipments, and different approaches for studying and analyzing these phenomena.</p>		
<p>The topics of symposium will cover the following subjects (but not limited to):</p> <ul style="list-style-type: none">• Liquid surfaces of metals, glasses and salts; surface energy and adsorption.• Metal-metal, metal-ceramic, metal-glass and ceramic-ceramic interfaces: Wettability, adhesion, interfacial reactions, segregation, grain boundary wetting and intergranular films.• Capillary phenomena in stressed polycrystals: anisotropy of internal wetting, zero creep, pressure solution.• Capillarity in microgravity.• Advances in measurement techniques of capillary properties.• Marangoni phenomena.• Modelling and simulation.• Corrosion and embrittlement by liquid metals.• Materials processing: Crystal growth, foundry processes, composite materials etc.• Processing of metal matrix composites.		
<p><i>Selected full papers will be published, after regular review process, in a special issue of the Journal of Materials Engineering & Performance (JMEP).</i></p>		