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## Area H

### Symposium H6

<b>Title Inorganic-nonmetallic materials in the circular economy</b>		
<b>Organizer</b>	<b>Institution</b>	<b>Contact email</b>
Daniel Vollprecht	University of Leoben	Daniel.Vollprecht@unileoben.ac.at
Enrico Bernardo	Universita' degli Studi di Padova	enrico.bernardo@unipd.it
<b>Abstract</b>		
<p>About ~ 300 words (Scope, description, Targeted Topics)</p> <p>Inorganic-nonmetallic materials, i.e. glasses, ceramics, inorganic binders &amp; concrete, rocks, slags and ashes, play a crucial role with respect to circularity and sustainability of the economy as some of them, e.g. container glasses, are already recycled efficiently, whereas for others, e.g. municipal solid waste incineration ashes, there are still a lot of potentials for increased recycling, especially by using thermochemical valorisation routes. Sustainability of recycling of inorganic-nonmetallic materials is often challenged by the potential leaching of environmentally problematic elements, e.g. heavy metals, into soil and groundwater which is therefore intensively studied. Eco-design of inorganic-nonmetallic (by-)products and thermochemical treatment of inorganic-nonmetallic wastes for decreased leaching is therefore a highly promising opportunity for a sustainable circular economy of inorganic-nonmetallic materials.</p> <p>Consequently, this symposium addresses contributions dealing with inorganic-nonmetallic materials, i.e. products, by-products and wastes, in the context of the circular economy, i.e. from eco-design (design for re-use and design for (improved) recycling, resource efficiency by lightweight materials and utilisation of recyclates as new raw materials) via repair (e.g. kintsugi) and re-use (e.g. internal recirculation of slags in the metallurgical industry) to recycling (e.g. production of waste-derived glass-ceramics and new binders) and disposal (e.g. vitrification of nuclear wastes or incorporation of radionuclides in stable mineral phases).</p>		