

# Sustainable silica based nanomaterials for thermal protection systems

Online

12 JANUARY 2022

FROM 9H30 AM TO 5 PM

## Organizing Committee:

Aldina Santiago, ISISE, University of Coimbra  
Luísa Durães, CIEPQPF, University of Coimbra  
Paulo Santos, ISISE, University of Coimbra  
Dora Pontinha, CIEPQPF, University of Coimbra  
Hugo Caetano, ISISE, University of Coimbra  
Mariana Ghica, CIEPQPF, University of Coimbra

## Scientific Committee:

Aldina Santiago, ISISE, University of Coimbra  
Luísa Durães, CIEPQPF, University of Coimbra  
Paulo Santos, ISISE, University of Coimbra

## FOR REGISTRATION:

<https://forms.gle/4VGfPCxwHLZBcc8V6>

Participation is free, although registration is required.

## CONTACT US AT:

[tyre4buildins@dec.uc.pt](mailto:tyre4buildins@dec.uc.pt)

[luisa@eq.uc.pt](mailto:luisa@eq.uc.pt)

[nanofire@uc.pt](mailto:nanofire@uc.pt)

LIVE ON:

<https://videoconf-colibri.zoom.us/j/87576023383?TFRQL21h51VBUEV55VR5VUtqNythdz09>

9H30 Opening — Vice-Rector



Luís Simões da Silva

9h45 Recent developments in the field of cryogenic thermal protection systems for launchers



Wolfgang Fischer (SpaceF, GE)

10h15 Project 1 — AeroXTreme — High-performance silica aerogel nanocomposites for insulation under extreme temperature Space environments

Luísa Durães (CIEPQPF, University of Coimbra)

11h00 Coffee-break

11h15 Embodied energy and embodied carbon of building materials and components: a critical review



Francesco Asdrubali (University of Roma Tre, IT)

11h45 Project 2 — Tyre4BuildIns — Recycled tyre rubber resin-bonded for building insulation systems towards energy efficiency

Paulo Santos (ISISE, University of Coimbra)

12h30 Lunch

14h00 Nanotechnology in Construction: The Challenge of Particle Size in the Development of High-Performance Materials



Maria Cruz Alonso (Eduardo Torroja Institute for Construction Sciences, SP)

14h30 Project 3 — NanoFire — Thermal and mechanical behaviour of nano cements and their application in steel construction as fire protection

Aldina Santiago (ISISE, University of Coimbra)

15h15 Coffee-break

15h30 Silica aerogel production scale-up: technical, environmental, and financial challenges

Fernando Simões

15h45 Volcalis mineral wool, efficient and sustainable insulation

Ávila e Sousa



16h00 Genan, a sustainable tyre recycling company

Thomas Ballegaard



16h15 Thermal Protection Systems (TPS) design and manufacturing

Sofia Paixão



16h30 Silica and nanotechnology applied to health, well-being and safety

Mário Brito



16h45 Closing



UNIÃO EUROPEIA  
Fundo Europeu de Desenvolvimento Regional

