



Fraunhofer
ISC

Fraunhofer Center for High Temperature
Materials and Design HTL

Online Workshop

June 25, 2024

Energy Efficiency of High Temperature Processes

High Temperatures – Efficient Solutions

Energy Efficiency of High Temperature Processes

Sustainability is an important topic in industry today more than ever. In Germany for example, 67 % of the industrial energy consumption is used for heat treatment processes. By optimizing the energy efficiency of high temperature processes, we can make a contribution to sustainability and reduce costs at the same time.

Decarbonization, i.e. the reduction of CO₂ emissions, is another focus that we need to address. By using alternative energy sources like hydrogen or the electrification of heating processes, we can reduce our ecological footprint and make a positive contribution to climate protection.

In addition, digitalization is playing an increasingly important role in the industry. By using sensors, data analysis and automation, we can improve energy efficiency and product quality. The workshop offers the opportunity to exchange ideas with experts and learn about new digital and sustainable solutions.

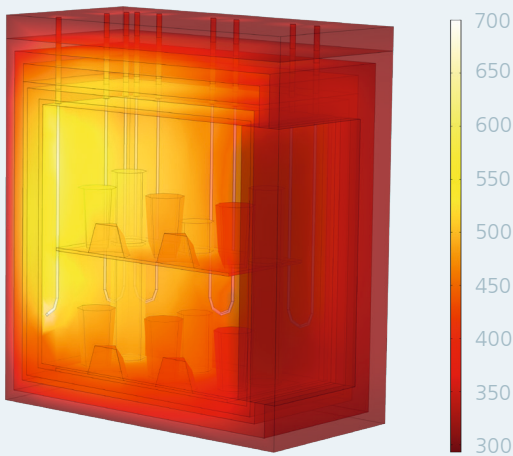
We are looking forward to your participation!

Registration

Please use the registration form at:
<https://htl.fraunhofer.de>

Participation is free of charge





FE simulation of the temperature distribution in a chamber furnace (© Fraunhofer Center HTL)

Agenda (1:00 p.m. – 3:45 p.m.)

■ Introduction

Prof. Dr. Friedrich Raether, Fraunhofer Center HTL

■ Decarbonizing industrial process heat with hydrogen

Dr. Jörg Leicher, Gas- und Wärme-Institut Essen e.V.

■ Material challenges arising from the energy transition in thermal processes

Dr. Holger Friedrich, Fraunhofer Center HTL

■ Potential for decarbonization of the ceramic sector: Necessary conditions and current obstacles

Magdalena Vallebona, Cerame-Unie

■ Digitalization as a key to sustainable thermal processes

PD Dr. Gerhard Seifert, Fraunhofer Center HTL

■ Discussion and conclusion

Prof. Dr. Friedrich Raether, Fraunhofer Center HTL



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