

## HITEC Theme/Methods Day

**Title:** Materials for High Temperature Applications  
**Date:** 7 + 8 June 2017  
**Time:** 9:00 –12:30  
**Location:** Forschungszentrum Jülich, IEK-2, Bld. 5.1, R. 1/2

<b>Day 1</b>	
09:00 – 09:15	Welcome and Introduction
09:15 – 09:45	<b>Application of high temperature materials</b> ( <i>L. Singheiser</i> )
09:45 – 10:15	<b>Constitution and microstructure of structural materials</b> ( <i>D. Grüner</i> )
10:15 – 10:45	<b>Analysis of high temperature materials using SEM and TEM</b> ( <i>E. Wessel</i> )
10:45 – 11:00	Coffee-break
11:00 – 11:30	<b>Thermodynamics – experimental and CALPHAD modelling</b> ( <i>D. Sergeev, E. Yazhenskikh</i> )
11:30 – 12:00	<b>Ab-initio modelling</b> ( <i>C. Hüter</i> )
12:00 – 12:30	<b>Manufacturing and properties of nickel base alloys</b> ( <i>L. Singheiser</i> )
<b>Day 2</b>	
09:00 – 09:30	<b>Metallic materials for high temperature applications</b> ( <i>B. Kuhn</i> )
09:30 – 10:15	<b>High temperature oxidation of structural materials</b> ( <i>D. Naumenko</i> )
10:15 – 10:45	<b>High temperature corrosion of ceramic materials</b> ( <i>M. Müller</i> )
10:45 – 11:00	Coffee-break
11:00 – 11:45	<b>Thermo-mechanical properties of ceramic materials</b> ( <i>J. Malzbender</i> )
11:45 – 12:30	<b>Materials at ultra-high temperatures</b> ( <i>M. Wirtz</i> )

### HITEC Days

HITEC Days are an inherent part of the graduate school Helmholtz Interdisciplinary Doctoral Training in Energy and Climate Research (HITEC). They devote a whole day to a method or a scientific topic with lectures and discussions. The methodological days serve to encourage scientific interdisciplinarity and will enable the PhD students to extend their range of methods with respect to their own scientific work. HITEC Days always end with a 'Get together', some snacks and drinks. HITEC Days are open for HITEC Ph.D. students and other interested young scientists.