GlaCerHub Training programme 2026

EVENT 2 – AGENDA

Date: Monday 9th to Wednesday 11th of November, 2026

Locations: CEITEC BUT, Purkyňova 656/123, 612 00 Brno, Building A, labs
FME BUT, Technická 2, 612 00 Brno, Building A2, labs
CEITEC BUT, Plasma spray labs, Kunštát
Institute of Physics of Materials CAS, Žižkova 513/22, 616 00 Brno

Monday, 9th of November, 2026	
Day 1 – Afternoon session - Module 1: **Practical Laboratory Training in Advanced Ceramic Sintering Technologies** (Locations: CEITEC BUT Purkyňova, FME BUT Technická)	
14:00 – 14:10	**Welcome, Introduction, Overview and Outline of the Module 1** *prof. RNDr. Karel Maca, Dr., head of RG211 @CEITEC BUT*
14:10 – 16:30	**High-temperature dilatometry,** **Rapid Pressure-Less Sintering (RPLS),** **Ultrafast High-temperature Sintering (UHS)** *researchers of RG211 @CEITEC BUT*
16:30 – 16:45	**Transfer to FME BUT, Technická** *(15 minutes walking distance)*
16:45 – 17:50	**Hot Isostatic Pressing (HIP)** *Ing. Tomáš Spusta, Ph.D., RG211 @CEITEC BUT*
17:50 – 17:55	**Tutorial and concluding remarks** *prof. RNDr. Karel Maca, Dr., head of RG211 @CEITEC BUT*
17:55	**End of the Day 1 – Afternoon session and Module 1**

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Tuesday, 10th of November, 2026	
Day 2 – Morning session – Modules 2&3: Practical Training in Atmospheric Plasma Spraying of Ceramic Powders (Locations: FME BUT, Technická 2, Plasma spray labs RG205, Kunštát)	
8:30 – 9:00	**Hot Isostatic Pressing (HIP)** **Samples insertion @ FME BUT** *prof. RNDr. Karel Maca, Dr., head of RG211 @CEITEC BUT*
9:00 – 9:45	**Transfer to CEITEC BUT, Plasma spray labs, Kunštát** *(30–45 minutes by car)*
9:45 – 10:00	**Workplace health and safety training** *Assoc. prof. Ladislav Čelko, Ph.D., head of RG HPMC4I @CEITEC BUT*
10:00 – 12:00	**Introduction to thermal spray feedstock** *Assoc. prof. Ladislav Čelko, Ph.D., head of RG HPMC4I @CEITEC BUT*
12:00 – 13:00	**Lunch + End of the Morning session**

Day 2 – Afternoon session - Modules 2&3: Practical Training in Atmospheric Plasma Spraying of Ceramic Powders (Location: Plasma spray labs RG205, Kunštát)	
13:00 – 14:30	**Design of an experiment for the thermal spray process** *Assoc. prof. Ladislav Čelko, Ph.D., head of RG HPMC4I @CEITEC BUT*
14:30 – 15:30	**Pre-processing of substrate surface for thermal spraying** *Assoc. prof. Ladislav Čelko, Ph.D., head of RG HPMC4I @CEITEC BUT*
15:30 – 17:00	**Atmospheric plasma spraying** *Assoc. prof. Ladislav Čelko, Ph.D., head of RG HPMC4I @CEITEC BUT*
17:00 – 17:15	**Tutorial and concluding remarks** *Assoc. prof. Ladislav Čelko, Ph.D., head of RG HPMC4I @CEITEC BUT*
17:30	**Dinner + End of the Day 2 Afternoon session + Modules 2&3**

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Wednesday, 11th of November, 2026	
Day 3 – Morning session - Module 4: Mechanical properties of ceramics and ceramic-based composites (Location: Institute of Physics of Materials CAS, Žižkova 513/22, 616 00 Brno)	
8:30 – 8:40	**Welcome and Overview** *Ing. Zdeněk Chlup, Ph.D., head of the Brittle Fracture Group, IPM CAS*
8:40 – 09:25	**Rules for specimen extraction and preparation for strength and fracture toughness** *Dr. Ing. Filip Šiška, Ph.D., researcher @ Brittle Fracture Group, IPM CAS*
9:30 – 10:25	**Laboratory exercise including strength and fracture toughness determination** *Ing. Zdeněk Chlup, Ph.D., head of the Brittle Fracture Group, IPM CAS*
10:35 – 11:30	**Resonance as non-destructive evaluation of elastic properties of ceramic materials** *Dr. Ing. Filip Šiška, Ph.D., researcher @ Brittle Fracture Group, IPM CAS*
11:30 – 12:25	**Indentation technique as a tool for local characterisation of ceramics** *Ing. Zdeněk Chlup, Ph.D., head of the Brittle Fracture Group, IPM CAS*
12:25 – 12:30	**Cases in touch – examples – comments – discussion**
12:30 – 12:45	**Concluding remarks**
12:45	**Lunch + End of the Day 3 - Morning session and Module 4 – & End of EVENT 3**

*Coffee breaks will be organised according to the schedule and progress of the course

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