Chalcogenide Advanced Manufacturing Partnership Open Day  March 9, 2015

Chalcogenide Supply Chain
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Purpose
ChAMP is focused on developing the UK as the leader in Chalcogenide Supply Chain globally. The ChAMP partnership aims at improving every link in the manufacturing and supply of chalcogenide products. The vision is a seamless interaction of industrial and research partners working together to strengthen and improve each part of the chalcogenide supply chain. The involvement is dynamic and we are continually forging new link. Now is your chance to see where you would like to participate. The main manufacturing techniques developed thus far are Sealed Ampoule (SA), Reactive Atmosphere Processing (RAP) and Chemical Vapor Deposition (CVD). This poster shows the initial capability and partnership developed with focus on the state of the art RAP system.

The System
A RAP system has been developed, see photo to the right. The system was designed inhouse with the goal of producing high purity bulk IR glass and raw materials. The five reactive gasses installed are Ar, H₂, H₂S, O₂ and Cl.

Components/Development
- Instrument Supply – Thermal Imaging, Temperature, Pressure, Dew point, Gas Detection, MFCs
- Automation and datalogging – National Instrument and Labview
- Gasses/Gas Purification – Chell (SAES)
- Furnaces – Lenton
- Fittings and other components – stainless steel, PFA, glassware, Crucibles, Vacuum components
- High Purity glovebox.

Reactive Atmosphere Processing

Analysis
Optical – FTIR, Raman, UV-Vis-NIR, Fibre loss
Impurity Analysis – GDMS
Thermal Analysis
XRD

Products and Supply
Fibre, substrates, bulk glass components, microspheres, thin films
. for University and Industrial Research

Become Involved!

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Research/Collaborations/Projects

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ChAMP Open Day is hosted by: Optoelectronics Research Centre
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