CO2 Capture, Transformation and Storage Components			
E3.I	**Organiser**	**Institution**	**Contact**
	W.A. Meulenberg	Institute for Energy and Climate Research Synthesis and Processing of Materials IEK Germany	**w.a.meulenberg@fz-juelich.de**
	H. Bowmeester	University of Twente Science and Technology Meander, ME 349 7500 AE Enschede The Netherlands	**h.j.m.bouwmeester@tnw.utwente.nl**
	Summary		
	CO2 is one of the greenhouse gases that contributes significantly to global warming. Reduction or elimination of CO2 emissions from power plants fuelled by coal or gas, or other energy intensive industries, are subject of many research and development activities. Power plants account for more than 40% of the global anthropogenic CO2 emissions, and therefore are the main focus of CO2 capture and storage technologies (CCS). Two core research technologies are post combustion-capture and pre-combustion capture. The symposium primarily focuses on materials, strategies, challenges and concepts for CCS, which includes the design and development of components as o membranes for oxygen separation o membranes for hydrogen separation o membranes for CO2 separation o membrane reactors and catalysts o temperature or pressure swing adsorption o chemical looping o etc.		