Hybrid and Metal-Organic Framework Materials			
B4. I	**Organiser**	**Institution**	**Contact**
	Jin-Chong Tan	*Dept. Engineering Science, University of Oxford Parks Road, Oxford OX1 3PJ, UK*	**jin-chong.tan@eng.ox.ac.uk**
	Bartolomeo Civalleri	*Department of Chemistry, NIS Centre of Excellence, and INSTM Reference Center, University of Turin, via Pietro Giuria 7, 10125 Torino, Italy*	**bartolomeo.civalleri@unito.it**
	Summary		
	In the last decade, we have witnessed an explosion of activity in the field of hybrid framework materials, which are single-phase crystalline solids that can constitute some of the functionalities of both inorganics and organics. At the molecular level, such hybrid frameworks are built from inorganic and organic building blocks held together by strong covalent and coordination bonds, to yield a plethora of 1-D, 2-D or 3-D materials. This new class of framework materials is now attracting considerable attention because their physico-chemical diversity offers opportunities for creating many technologically relevant properties. For example, hybrid materials featuring nanoporous architectures — termed metal-organic frameworks (MOFs) — now seem set to contribute to developments in areas ranging from energy (e.g. gas storage, sensing, dielectrics) and the environment (e.g. volatile radioiodine capture, CO2 sequestration), all the way to biology and medicine (e.g. triggered drug delivery). Equally important are dense hybrid frameworks that exhibit exciting physical phenomena traditionally associated only with purely inorganic or organic materials, some of which include multiferroics, photoluminescence, electronic conductivity, and nonlinear optical behaviour. This symposium will focus on the latest advances in such hybrid and MOF-type materials, with special emphasis on the design, characterization and optimization of their structural, thermo-mechanical, chemical, and related functional properties, all of which are important for practical applications. Contributions covering experimental and theoretical aspects are invited. .		