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The logo for the Ceramics and Composites Laboratory (CCL) at The University of Sheffield. It features the letters 'CCL' in a large, bold, black sans-serif font, centered between two horizontal yellow bars.

Ceramics and Composites Laboratory
The University of Sheffield

Publications

"Nature of the chemical bond and prediction of radiation tolerance in pyrochlore and defect fluorite compounds" G. R. Lumpkin, M. Pruneda, S. Rios, K. L. Smith, K. Trachenko, K. R. Whittle, N. J. Zaluzec, *Journal of Solid State Chemistry* 180 (2007)1512-1518

"Tungsten bronze-structured temperature-stable dielectrics" Stennett MC, Reaney IM, Miles GC, West AR, Kirk CA J. *Amer. Ceram. Soc.* 90 (3): 980-982 (2007)

"Micromechanical modelling of shear deformation of a 90 degrees-ply in Glare (R) at elevated temperatures" Hinz S, Jones FR, Schulte K *Comp Mats Sci* 39 (1): 142-148 (2007)

Out and about

Ian Reaney spent 12 days in Aveiro this month working on the TEM of electroceramics. Ian's work was mainly focused on thin films of Ba Sr Titanate and thick films of Ba Nd titanate.

Tony West spent one week at Universidad Jaume I in Castellon, Spain as part of his continuing collaborative project on electrical properties of oxide ceramics synthesised by sol-gel methods.

Beam time success

Derek Sinclair and his team have been successful in a bid for neutron beam time at the ILL in France (Grenoble). They have been awarded 6 days in total, 3 days for investigating CCTO-related phases and 3 days for Sillenites.

Funding success

Congratulations to Ian Reaney, Derek Sinclair and Mark Rainforth who have recently been awarded £610,719 for their proposal entitled "Nanostructure in functional ceramics". In addition, Ian has been awarded £101,512 to study "Bi(Me'Me")O₃ - BiFeO₃ / PbTiO₃ Pseudoternary Compounds for High Temperature Piezoelectric Applications".

Visitors to the CCL

Philippe Ghosez visited the CCL at the end of April. Philippe gave a presentation to the group and spent time in discussions with several researchers about his research. Hopefully this visit will be the start of some collaborative projects.

Shubhra Pandey is visiting the CCL for 3 months. Shubhra will be working with Rainer Schmidt, Derek Sinclair and Tony West on CCTO.

Prof Eisuke Iguchi from Yokohama University recently visited Tony West for a day for discussions on impedance measurements on oxide ion conductors.

Best Wishes Helen Fletcher H.L.Fletcher@sheffield.ac.uk