

Kent-Warwick-Imperial-University College Sol-Gel Project Meeting

Friday 20th January 2012

Minutes

Agenda item	Outcome
1. Welcome and attendance	Bob Newport, Jonathan Knowles, Julian Jones, Mark Smith, John Hanna, Esther Valliant, Oliver Mahony, Jodie Smith, Jamie Christie, Louise Connell, Nilay Lakhkar, Farzad Foroutan, Scott King, Frederick Romer, Anthony Macon, Gavin Mountjoy, Richard Martin, Gowsh Poologasundarampillai, Jahangir Malik.
2. Apologies	Daming Wang, Antonio Tilocca, Azadeh Kiani
3. Minutes	There were no comments on the minutes of the 14 th October 2011 meeting which were accepted as an accurate record.
4. Progress and Science	
4.1 Imperial	Louise: Chitosan-silica functionalization. Then did ¹ H NMR. Cant see chitosan. At pH2, forms PEO, diol and dioxane. Also did at pH6. Oli: Looking at reaction of GPTMS and gelatin. ¹³ C of gelatin. No evidence of gelatin in the spectra. Has also carried out ¹ H NMR. Esther: γ -PGA sol-gel hybrids. PhD submission. Anthony: TMSPMA polymer. Polymerise in THF and TEOS-hydrolysed to give sol.
4.2 Warwick	<u>No presentations this month</u>
4.3 Kent	Jodie: Currently looking at some calcium phosphates and also fitting to neutron data to look at aluminium.
4.4 UCL-EDI	Nilay: HT-XRD and DTA plots. Also pursuing XANES experiment with Richard and Bob. Planning bioreactor work Farzad: Synthesis of binary and ternary glasses. Problem with evaporation of solvent before gel forms. Suggest change solvent
5. Publications update	<i>Please send to Jonathan the DOIs of papers to link from the website</i>
5.1 Imperial	
5.2 Kent	
5.3 UCL	A. Kiani, N. Lakhkar, M.E. Smith, J.V. Hanna, R.J. Newport, D.M. Pickup and J.C. Knowles (2012) "Structure of Titanium-doped Bioactive Phosphate Glasses" Philosophical Transactions of the Royal Society, Part A, Vol.360, No.1962, p1352-1375. A. Kiani, J.V. Hanna, S.P. King, G.J. Rees, M.E. Smith, N. Roohpour and J.C. Knowles (2012) "Structural characterization and physical properties of P2O5-CaO-Na2O-TiO2 glasses by FTIR, Raman and solid state MAS NMR" Acta Biomaterialia, Vol.8, No.1, p332-339. D.M. Pickup, R.J. Newport and J.C. Knowles (2012) "Sol-Gel Phosphate-based Glass for Drug Delivery Applications" Journal of Biomaterials Applications, Vol.26, No.5, p613-622.
5.4 Warwick	
6. Conference update	WBC China

	<p>JRJ and JCK keynote lectures Oli and Daming, Oral presentations Nilay, Esther and Louise, posters Imaging talk American Ceramics Society Glass and Optical Division Gavin, talk JRJ organising a session ACerS September 2012 launched a Biomaterials meeting in N. Carolina</p>
7. Central Facilities	Put in application for XANES on Ti.
8. Grants	<p>EU Fellowship. UCL, Kent, Warwick. 1st round announced June EPSRC Critical mass grant. UCL, Kent, Warwick and QMUL JRJ and RJN: progressing ideas with LLH.</p>
8. AOB.	