

13<sup>th</sup> May 2013

re. EPSRC Call : Capital for Great Technologies

Dear Neil,

I understand that your group will propose new equipment for the University of Cambridge under the EPSRC Call : Capital for Great Technologies. I want to start by stating that our collaboration has demonstrated the wealth of information that can be gained regarding oxide interfaces using X-Ray Magnetic Circular Dichroism and PhotoEmission Electron Microscopy (PEEM) at the UK national synchrotron facility (Diamond). I am very interested in continuing to explore the new and novel oxide structures, being developed by your group, using the unique interface and element specific probes we have established together at Diamond.

The competition for beamtime at Diamond is intense, so that only a limited number of shifts can be awarded to each group, making preparation at the user group's home institute essential for successful experiments at Diamond. I believe that the key to the success you have had in running experiments at Diamond lies in the detailed sample preparation and characterisation that your team performs in order to select ideal samples for beamtime. In addition your team often propose to perform cutting-edge x-ray experiments, based on the sample characterisation they performs in the laboratory, which in turns helps Diamond to develop as a facility. I strongly believe that a low-temperature magnetic force microscope, housed in your home institute, would not only help your team to prepare and characterise leading edge metal oxide magnetic nanostructures, but would also allow an unprecedented level of insight when combined with the results from Diamond.

The I06 research team looks forward to further collaborative work, taking the productive relationship we have already established in our joint studies of interfaces, into new areas of scientific enquiry. I am sure that this will continue to be a very fruitful relationship, based on your group's status as regular users of beamline I06.

I wish you good luck with your grant application and look forward to collaborating in the work that will follow from it.

Yours sincerely,

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S.S. Dhesi Principal Beamline Scientist, Diamond Light Source