Professor Jay Benziger
PRINCETON UNIVERSITY
Department of Chemical Engineering
Engineering Quadrangle A323
Princeton, New Jersey 08544-5263
Tele# (609) 258-5416 Fax# (609) 258-0211
email benziger@princeton.edu

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Dear Committee Member,

My field of research is materials chemistry and chemical processing of materials for special applications. I have been collaborating with groups for producing large quantities of materials for large scale low background detectors. I led a group from Princeton University in developing and implementing the scintillator purification for multi-ton quantities of liquid scintillator for the Counting Test Facility of the Borexino Solar Neutrino Experiment, as well as oversaw the design, construction and installation of the scintillator purification for the full scale Borexino Experiment. The Kimballton site offers a excellent location for new research with large scale low background detectors, and I have offered to work as a member of the Kimballton team to help make this a reality.

Kimballton site has great potential because of its ready accessibility. Experiments that require large scale processing of materials in underground locations for low background detectors are well suited for the Kimballton site.

The engineering activities for preparing large quantities of high purity materials I have been involved should be represented in DUSEL. The chemical processing techniques to process large quantities of materials require chemical engineering skills to efficiently scale processes. Professionals with expertise in the chemical process industry and especially purification processing are essential for the success of these ventures. The group at Princeton has this expertise and has worked with groups from Lucent, Virginia Tech, Technical University of Munich, University of Milan and others to go from bench top experiments to process equipment that can process up to 1 ton of material per hour. The Princeton group under Professor Benziger's direction has demonstrated processing capable of achieve backgrounds of $< 1 Bq/m^3$ in liquid scintillators. The availability of this expertise will advance the activities at Kimballton site significantly.

Sincerely,

Jay Benziger