University of Cincinnati

Faculty/Staff International Incentive Grant 2023

October 24, 2022

Dear Committee,

I have read the proposal by Greg Beaucage to spend several weeks at the University of Duisburg-Essen in formulating research proposals concerning the emergence of complex macroscopic networks in nanocomposites. I'd be highly interested as my group is currently working on Si-based anodes (together with Wiggers group from UDE), including coating and the generation of supraparticles via spray drying. I also have a certain background on small-angle X-ray and neutron scattering (SAXS and SANS), which I did together with Dr. Torben Schindler and Prof. Tobias Unruh from FAU (as a collaborator) in the measurement of SAXS and SANS simultaneously to resolve core-shell structures of nanoparticles, however without any drying effects, simply in dispersion. Understanding and controlling emergent hierarchical network structures is therefore of importance to our research and teaching activities. The interaction with companies mutually local to the Ruhrgebeit and Cincinnati is also of interest. During his stay he has offered to teach a short course on small-angle scattering for nanomaterials which is of use to our students and post-docs. We are also interested in exploring the development of joint elective classes using the Zoom platform. For these reasons I am happy to host Prof. Beaucage during his stay in April/May 2023.

Sincerely,

University of Duisburg-Essen