

第 759 回 化学・物質工学セミナー

コネチカット大学の Luyi Sun 博士が、長崎大学に来学されることになりました。そこで下記のとおりセミナーを開催いたします。万障お繰り合わせの上、ご参加下さい。

Multifunctional Biomimetic Nanocoatings via One-Step Coassembly

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Large-scale biomimetic organic/inorganic hybrid nanocoatings with a nacre-like microstructure were prepared via a facile co-assembly process. Different from conventional polymer nanocomposites, such nanocoatings contain a high concentration of nanosheets, which can be well aligned along the substrate surface. Moreover, the nanosheets and polymer matrix can be chemically co-crosslinked. As a result, the nanocoatings exhibit exceptional mechanical properties, gas barrier performance, flame retardancy, anti-corrosion, and injection barrier for flexible electronics, but meanwhile they are highly transparent. Because of their excellent performance and high versatility, such nanocoatings are expected to find widespread application.

Short Bio: Dr. Luyi Sun is a Board of Trustees Distinguished Professor at the University of Connecticut. His research focuses on the design and synthesis of nanostructured materials for a wide range of applications. Dr. Sun has published over 320 peer-reviewed journal articles and is the inventor of more than 70 U.S. and foreign patents. He is a Fellow of the National Academy of Inventors, the Society of Plastics Engineers, and the Royal Society of Chemistry, as well as a Member of the Connecticut Academy of Science and Engineering.

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