



高分子学会九州支部 外国人学者講演会



Benzoxazine Chemistry and Its Energy Applications

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共催：九州大学高分子機能創造リサーチコア
ダイナミック・アライアンス
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中国の西南石油大学の Yuntao Li 先生は、熱硬化性樹脂を中心とした実用材料の高強度化・高性能化などに関する研究を精力的に展開しています。今回は、ポリベンゾオキサジンの各種特性を中心にご講演をいただく予定です。皆様の多数のご参加をお待ちしております。

Abstract: Polybenzoxazine is a new class of thermosetting material with unique properties including near-zero shrinkage, very high char yield, high modules, excellent flame resistance and low water uptake. The outstanding materials property balance, together with rich molecular design flexibility and relatively low cost make polybenzoxazine one of the few possible candidates that replace or even go beyond those well-known materials such as phenolics, epoxies, and bismaleimides. Benzoxazine chemistry, the merits and challenges of the material, and related application efforts will be introduced. The synergistic effects of multi-dimensional and multi-functional toughening of polybenzoxazine will be presented. The utilization of benzoxazine materials on fuel cells and other energy applications will also be addressed.

Brief Resume: Professor Yuntao (David) Li obtained his PhD degree in Materials Science and Engineering at Texas A&M University in 2004. After 2-year postdoctoral research at Texas A&M, he joined Huntsman Advanced Materials in Houston, Texas as a senior scientist in 2006. Since 2011 he moved to Chengdu, China as a full professor in College of Materials Science and Engineering in Southwest Petroleum University. His research interests include high performance thermoset materials and their composites for aerospace, energy, and electronic applications; structure-property relationship in polymers, fiber-reinforced composites, coatings, adhesives and nanocomposites. He is also a co-founder of Polyris Technology LLC for commercialization of novel materials, processing technologies, and applications for high performance fiber-reinforced composites.

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