

Transformation of Renewable Biopolymers into Nutrients, Value-added Chemicals and Materials

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Biomass offers a wide range of starting materials for value-added chemicals and fuels, however, components in biomass feedstock bristle with functional groups, reducing their stability to withstand high temperatures usually used to process petrochemicals. In recent years, we have demonstrated in a series of studies that the conversion various biomass components can be effectively catalyzed by well-defined catalysts under mild conditions into valued added chemicals and materials (c^e).

This presentation will focus on the transformation of three most abundant biopolymers on earth, namely cellulose, chitin and lignin.

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Author Biography:

Ning Yan obtained his bachelor and PhD degrees from Peking University in 2004 and 2009, respectively. Thereafter, he worked as a Marie-Curie Research Fellow at Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland before joining the National University of Singapore (NUS) to lead the Lab of Green Catalysis in 2012. He is promoted to Associate Professor at NUS from Jul-2018.



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Research Interest: green chemistry, biomass conversion and catalysis.