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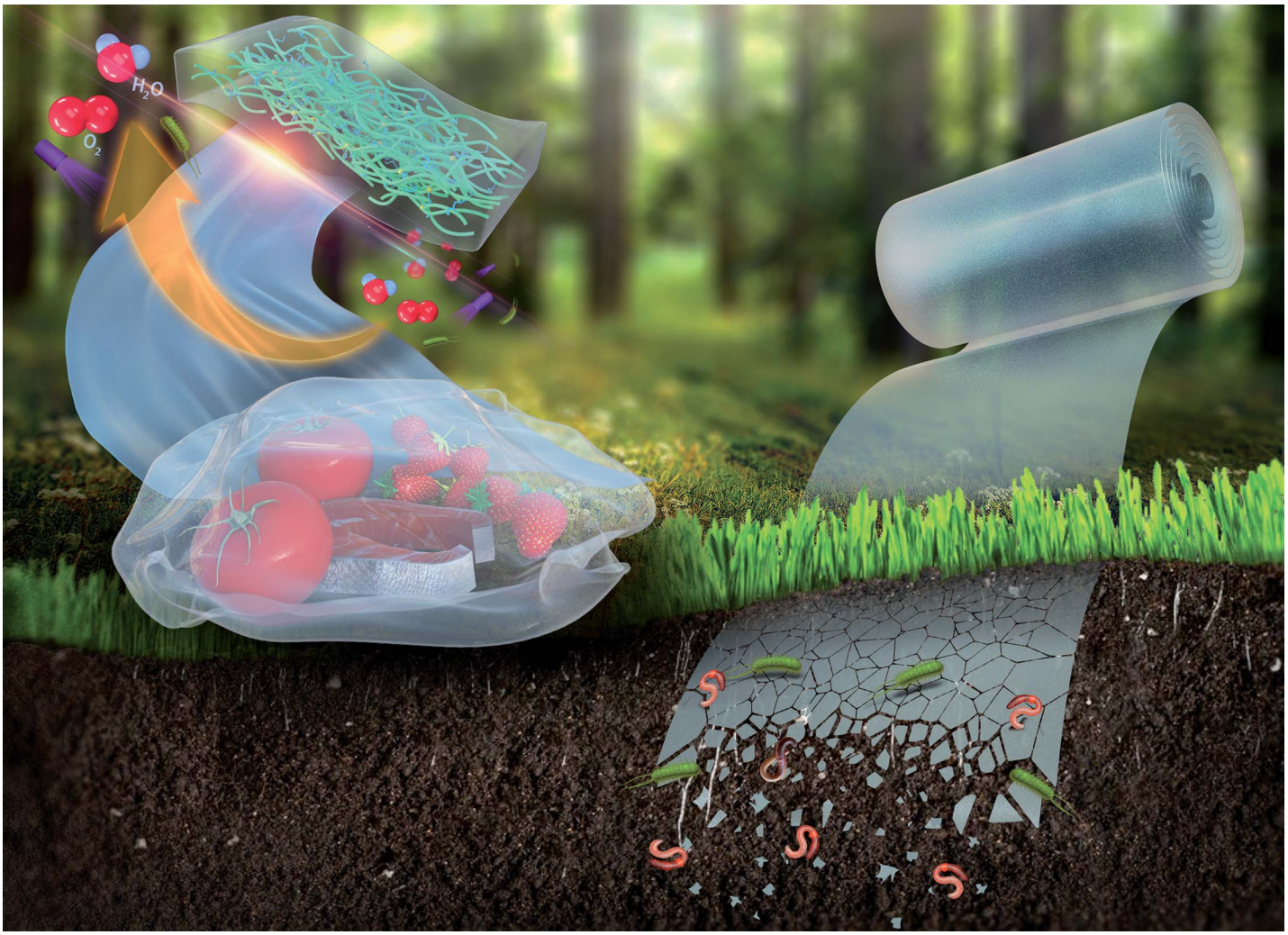

Showcasing research from Professor To Ngai's laboratory, Department of Chemistry, Chinese University of Hong Kong, Sha Tin, N.T., Hong Kong.

Development of strong and high-barrier food packaging films from cyclic-anhydride modified bacterial cellulose

Using non-substituted and long-chain substituted cyclic anhydrides as the esterifying agents, this work reports simple, efficient, and low-pollution surface modification protocol to fabricate BC films with good mechanical and water vapor, oxygen, and foodborne pathogenic bacterial barrier properties. The fabricated films also show visible improvement in thermal stability and are biodegradable within one month in soil. They thus have high potential in replacement of widely used petrochemical plastic-based food packaging materials.
Image credit: To Ngai

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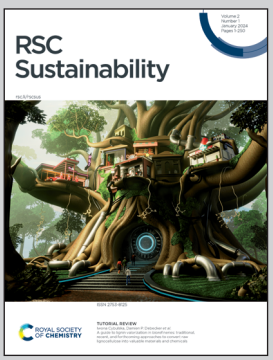

See To Ngai *et al.*,
RSC. Sustainability., 2024, **2**, 139.

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