

New concepts for converting lignins into valuable products are at the core of today's most important scientific advances in biorefineries. Despite the fresh momentum in lignin valorisation, extensive efforts are still needed to unravel its structural complexity and rationalise the relationship between the structure of lignin and their physical-chemical properties to unlock lignin's potential in industrial applications.

This Faraday Discussion focuses on the latest developments in lignin valorisation and aims to further the understanding of the physical-chemical processes that are the basis for lignin extraction, stabilisation and degradation by bringing together researchers at the forefront of physical-chemical research.

In this volume, the topics covered are organised into the following themes:

- Native lignin solvation and extraction
- Lignin stabilisation and degradation in lignocellulosic fractionation processes
- Commercially available technical lignins
- Strategies for compatibilisation of extracted lignin properties with commercial applications

Front cover image:
Functionalization of lignin yields three distinct derivatives, each with unique properties that can influence the characteristics of lignin/PLA composites and expand their applications in 3D printing.

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The papers presented are published in the Faraday Discussion volume together with a record of the discussion contributions made at the meeting. Faraday Discussions therefore provide an important record of current international knowledge and views in the field concerned.

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