

143ad Biofriendly Lubricants from Renewable Resources

Marcel A. Liauw, Sven Eichholz, Sergio Sabater Prieto, Corinna Brinkmann, and Adolf Eisentraeger
In a Collaborative Research Center (SFB), biofriendly lubricants are synthesized by modifying renewable resources like e.g. methyloleate (OME) to methyl- 10(9)-hydroxy-9(10)isobutoxyoctadecanoate (HISM).

The research includes the synthesis of the lubricants, their characterisation with respect to degradability and toxicity, but also to their tribological characteristics. Various institutes of two departments are involved with strong interactions. Careful analysis of the results indicates how synthesis conditions influence the product composition, and how this in turn influences the fluid properties.