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Jonas Hartman, Neste Engineering Solutions (NES), Porvoo

Up-scaling and engineering in distillation of biobased materials

In the race for ever more sustainable feedstock for material production, it is noteworthy that also more established biochemical technologies, like tall oil technologies, can provide a platform for, not only biofuels, but also for e.g. bio-olefins. Bio-olefins are still quite scarce on the market.

It has been shown by others that the hydrodeoxygenation of e.g. tall oils produces highly paraffinic liquids. In addition, apart from catalytic cracking, steam cracking offers another way to produce light olefins from biomass. There is an opportunity within circular economy and bioeconomy to use tall oil fractionation technology, e.g. NEXPINUS™, as a means to efficiently produce fatty acid fractions, Tall Oil Fatty Acid (TOFA), from which to continue to green olefins. Vacuum distillation know-how, which is central to this technology, can also be key in the processing of multiple other biobased chemicals.