

PROCESS

ABSTRACT

A process for the production of fatty alcohol or alcohols comprising: subjecting a fatty acid or fatty acid mixture to esterification with a lower alkanol in an esterification reactor maintained under esterification conditions to form a stream comprising the corresponding lower alkyl ester or esters; vaporising the stream from step (a); subjecting the vaporised stream of step (b) to hydrogenation in a first hydrogenation zone operated under hydrogenation conditions to form a stream comprising fatty alcohol or alcohols and an amount of unconverted lower alkyl ester or esters; subjecting the stream from step (c) to transesterification in a wax ester reactor maintained under transesterification conditions in the presence of a solid transesterification catalyst thereby to convert at least a portion of the lower alkyl fatty acid ester by ester interchange with a corresponding amount of fatty alcohol or alcohols to lower alkanol and to a wax ester or esters derived from a fatty alcohol and a fatty acid; separating fatty alcohol or fatty alcohols and wax ester or wax esters of step (d) by distillation to yield a fatty alcohol or alcohols product and a stream comprising wax ester or esters; passing said stream comprising wax ester or esters to a second hydrogenation zone operating under conditions to effect hydrogenation in the liquid phase to revert the wax ester or esters to fatty alcohol or alcohols; and returning the fatty alcohol or alcohols to the separation step (e).

Fig. 1