

HEAT AND HYDROGEN INTEGRATION IN PROCESS FOR RENEWABLE ALKYL BENZENE PRODUCTS

ABSTRACT

5 Processes for producing linear alkylbenzenes from natural oils incorporating hydrogen
and heat integration are described. The processes include recycling at least a portion of the
hydrogen stream to the linear selective cracking unit, and heating exchanging the paraffin
stream, or the C9 to C14 stream, or the C14+ stream, or the first stream, or the second stream,
or combinations thereof with the dehydrogenated stream, or the alkylation effluent stream, or
10 both; or providing heat from deoxygenating the natural oil to the linear selective cracking unit,
or the dehydrogenation unit, or the alkylation unit, or combinations thereof; or both.

[Figure 1]

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