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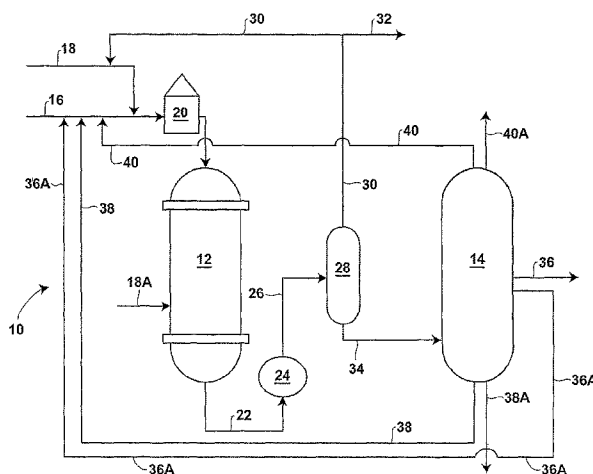
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(54) Title: METHODS OF MAKING XYLENE ISOMERS



(S7) Abstract: Disclosed herein are methods of making xylene isomers. The methods generally include contacting an aromatics-comprising feed with a non-sulfided catalyst under conditions suitable for converting the feed to a product comprising xylene isomers. The catalyst includes a support impregnated with a hydrogenation component. The support includes a macroporous binder and a sieve selected from the group consisting of a medium pore sieve, a large pore sieve, and mixtures thereof. The selection of the sieve will depend upon the size of the molecules in the feed, intermediate, and product that can be expected from the catalytic reactions. When the molecules are expected to be large, a large pore sieve should be used. In contrast, when the molecules are expected to be smaller, either a large pore sieve, a medium pore sieve, or a mixture thereof may be used. The macropores within the support have been found to be especially beneficial because they help to overcome diffusional limitations observed when utilizing highly-active catalysts lacking such macropores.

WO 2007/027435 A3



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