

PROCESS AND APPARATUS FOR SEPARATING PARA-XYLENE FROM A MIXTURE OF C8 AND C9 AROMATIC HYDROCARBONS

ABSTRACT

The invention includes at least two adsorptive separation zones to separate para-xylene from a feed stream comprising C8 aromatic hydrocarbons and at least one C9 aromatic hydrocarbon component. An adsorbent comprising X or Y zeolite and a heavy desorbent are used in the first adsorptive separation zone to produce an extract stream comprising para-xylene and a raffinate stream comprising para-xylene depleted C8 aromatic hydrocarbons, the C9 aromatic hydrocarbon, and the desorbent. The raffinate stream is separated in a raffinate distillation zone to produce a stream comprising the first desorbent component and the C9 aromatic hydrocarbon which stream is further separated in a second adsorptive distillation zone to produce a stream comprising the desorbent and a C9 aromatic hydrocarbon stream.

FIG. 1