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- (71) **Applicant: MARATHON GTF TECHNOLOGY, LTD.**
[US/US]; 5555 San Felipe, Houston, TX 77056-2799 (US).
- (72) **Inventors: WAYCULIS, John, J.;** 14902 Quail Farms Road, Cypress, TX 77429 (US). **THOMAS, Raphael;** 2100 Bering, Apt. 518, Houston, TX 77057 (US). **MOORE, Patrick, K.;** 11519 Del Monte Drive, Houston, TX 77077 (US).
- (74) **Agent: EBEL, Jack, E.;** Law Office of Jack E. Ebel, 165 South Union Boulevard, Suite 902, Lakewood, CO 80228 (US).

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(54) **Title:** PROCESSES AND SYSTEMS FOR CONVERSION OF ALKYL BROMIDES TO HIGHER MOLECULAR WEIGHT HYDROCARBONS IN CIRCULATING CATALYST REACTOR-REGENERATOR SYSTEMS

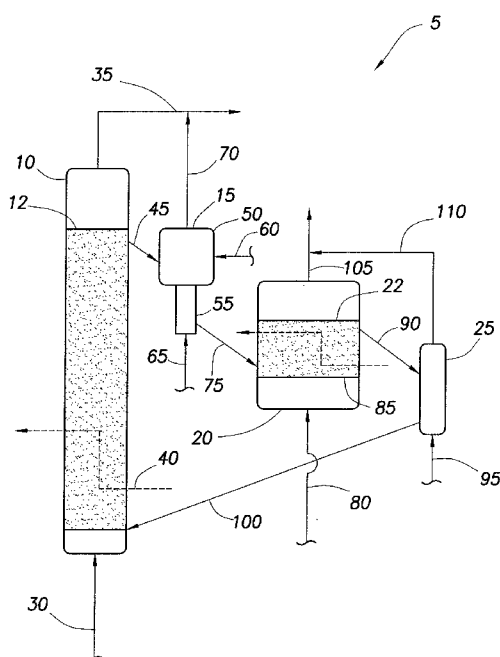


FIG. 1

(57) **Abstract:** Process and system that include the conversion of alkyl bromides to higher molecular weight hydrocarbons in circulating catalyst reactor-regenerator systems. Alkyl bromides may be reacted over a catalyst in at least one conversion reactor to produce at least an effluent stream comprising higher molecular weight hydrocarbons and hydrogen bromide. A portion of the catalyst may be removed from the conversion reactor. The portion of the catalyst may be contacted with a stripping gas to displace hydrocarbons from the portion of the catalyst. The portion of the catalyst may be contacted a first inert gas. The portion of the catalyst may be contacted with oxygen to form a regenerated catalyst by removal of coke. The regenerated catalyst may be contacted with a second inert gas. At least a portion of the regenerated catalyst may be introduced into the conversion reactor.