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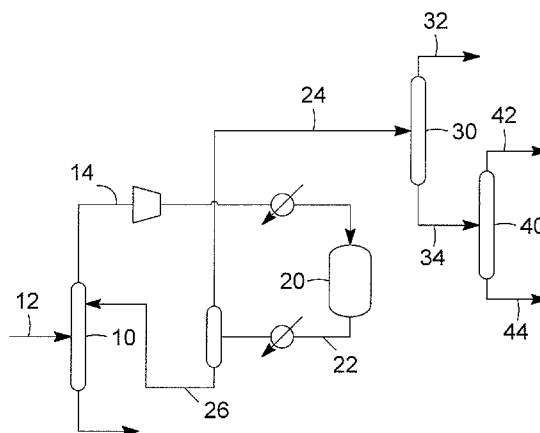
(54) **Title:** LAYERED SPHERE CATALYSTS WITH HIGH ACCESSIBILITY INDEXES

FIG. 1

(57) **Abstract:** A process and catalyst for use in the selective hydrogenation of acetylene to ethylene is presented. The catalyst comprises a layered structure, wherein the catalyst has an inner core and an outer layer of active material. The catalyst further includes a metal deposited on the outer layer, and the catalyst is formed such that the catalyst has an accessibility index between 3 and 500.



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