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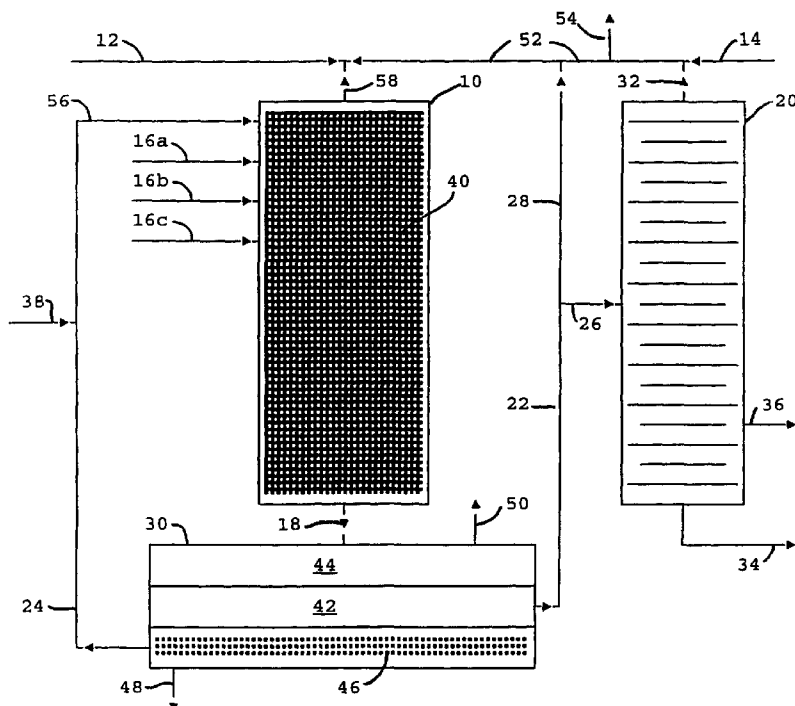
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(54) Title: PULSE FLOW REACTION



(57) Abstract: A method of operating a multi-phase downflow reactor so as to induce a pulsing flow regime is disclosed. The pulse may be induced by increasing the gas rate while maintaining the liquid rate until a pressure drop sufficient to induce the pulse flow is achieved. The method is particularly useful in the sulfuric acid catalyzed alkylation of olefins in a reactor packed with a stainless steel/polypropylene mesh.

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