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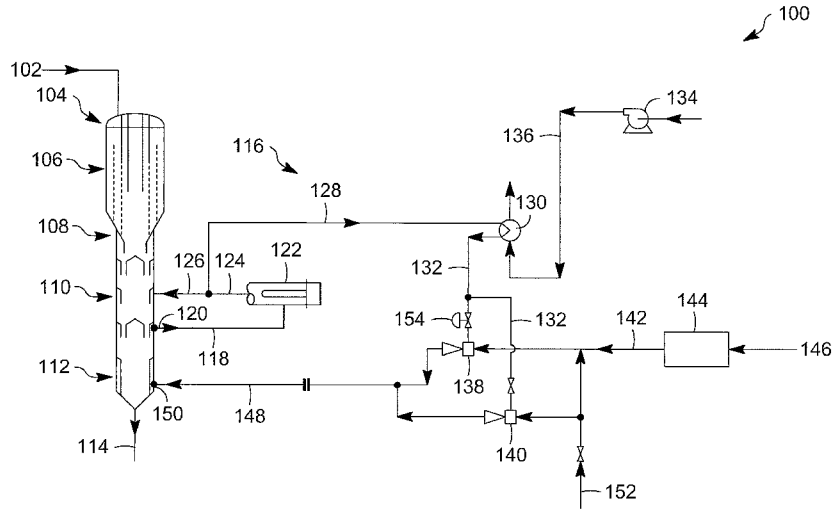
(54) Title: TURNDOWN THERMOCOMPRESSOR DESIGN FOR CONTINUOUS CATALYST RECOVERY



(57) Abstract: Systems and processes for regenerating catalyst are provided herein that include a catalyst regeneration tower having a cooling zone that receives a catalyst cooling stream generated by a cooling gas loop. The systems and processes include a first thermocompressor that utilizes a first motive vapor and a second thermocompressor that utilizes a second motive vapor in order to provide the catalyst cooling stream to the regeneration tower. The second thermocompressor operates in parallel with the first thermocompressor. The first thermocompressor can utilize combustion air as the motive vapor. The second thermocompressor can utilize nitrogen as the motive vapor.

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