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(54) Title: A FLUID MIXER AND A METHOD FOR MIXING FLUIDS

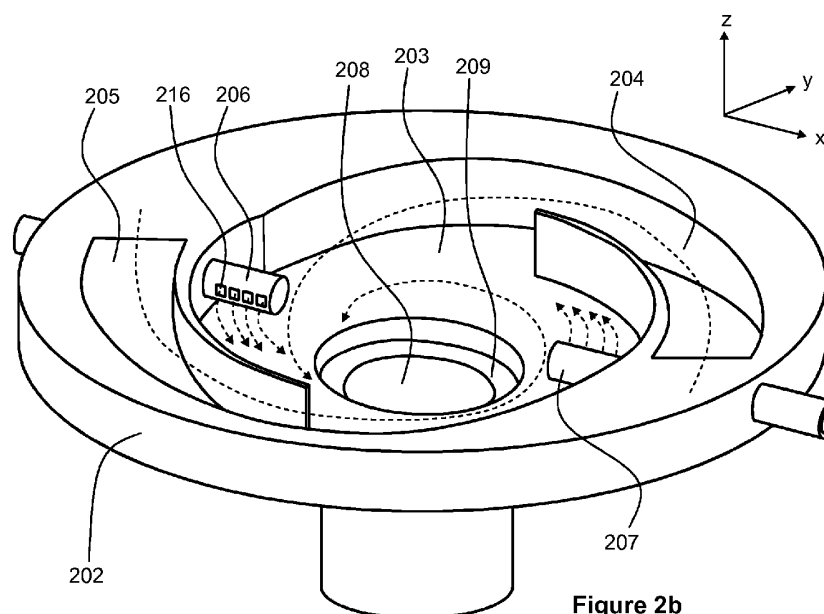


Figure 2b

(57) **Abstract:** A fluid mixer for a reactor of a hydrocarbon processing plant comprises a substantially cylindrical mixing chamber (203), at least one first inlet (204) for conducting first fluid to the mixing chamber from above the mixing chamber and along a side wall of the mixing chamber to produce a spiral stream in the mixing chamber, at least one second inlet (206) for conducting second fluid tangentially into the spiral stream, and an outlet channel (208) for conducting the first and second fluids downwards out from the mixing chamber. The outlet channel is concentric to the mixing chamber and comprises a mixing structure (209) for enhancing mixing of the first and second fluids. At least a part of the mixing structure is located below an upper edge of the outlet channel and produces turbulence in a stream of the first and second fluids flowing in the outlet channel.

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