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- (71) **Applicant:** EXXONMOBIL RESEARCH AND ENGINEERING COMPANY [US/US]; P.O. Box 900, Annandale, NJ 08801-0900 (US).
- (72) **Inventors:** ITO, Jackson, I.; 2507 Occidental Drive, Sacramento, CA 95826 (US). SCHOENMAN, Leonard; 5600 Kingswood Drive, Citrus Heights, CA 95610-7545 (US). DRAEMEL, Dean, C.; 5714 Garden Point Drive, Kingwood, TX 77345 (US). HO, Teh, C.; 887 Jason Court, Bridgewater, NJ 08807 (US). SWAN, George, A.; 18437 Wildlife Way, Baton Rouge, LA 70817 (US).
- (74) **Agents:** CROMWELL, Michael, A. et al.; Exxonmobil Research and Engineering Company, P.O. Box 900, Annandale, NJ 08801-0900 (US).
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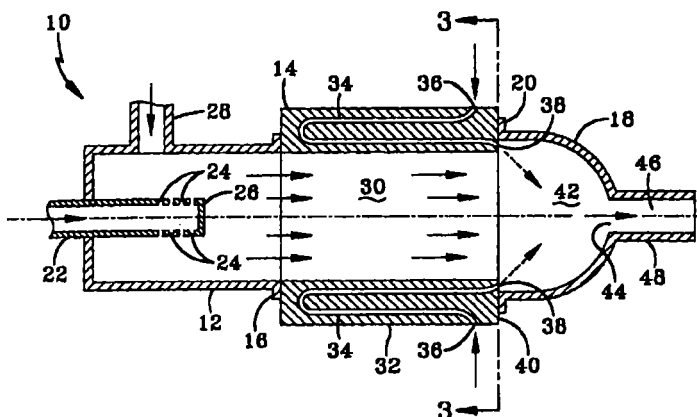
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(54) Title: SUPERHEATING ATOMIZING STEAM WITH HOT FCC FEED OIL



ACTION



- (57) Abstract:** An atomizing gas, such as steam, and a hot fluid comprising a hot liquid to be atomized, are passed under pressure, through separate fluid conduits in a heat exchange means, in which the hot liquid heats the steam to a superheat temperature, by indirect heat exchange. The superheated steam is then injected into the hot fluid, which comprises a two-phase fluid comprising steam and the hot liquid, subsequent to the superheated steam injection. The two-phase fluid is passed through an atomizing means, such as an orifice, into a lower pressure atomizing zone, which causes the steam to expand and atomize the liquid into a spray of liquid droplets. The two-phase fluid is formed before or as a consequence of the superheated steam injection and is preferably steam-continuous when passed through the atomizing means. This process is useful for atomizing a hot feed oil for a fluid cat cracking (FCC) process.

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