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(71) Applicant: **SULZER CHEMTECH AG** [CH/CH]; Sulzer-Allee 48, CH-8404 Winterthur (CH).

(72) Inventors: **KOCH, Jörg, Dr.**; Im Sodacker 18, 79400 Kandern (DE). **HERGUIJUELA, Juan Ramon, Dr.**; Im Eselacker 4, 79424 Auggen (DE).

(74) Agent: **MANITZ, FINSTERWALD & PARTNER GBR**; Postfach 31 02 20, 80102 München (DE).

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(54) Title: A LIQUID-LIQUID EXTRACTION SYSTEM AND PROCESS FOR USE THEREOF

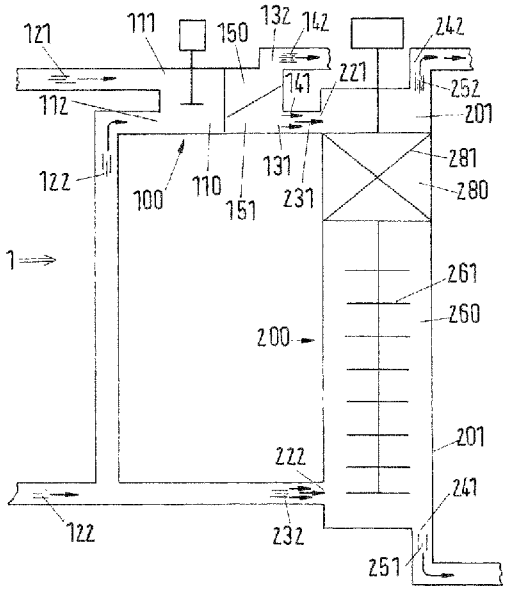


Fig.1

(57) Abstract: A liquid-liquid extraction system (1) adapted for the flow of two or more liquids therein is disclosed. The system comprises a mixer settler sub-system (100) and a counter-current liquid-liquid extraction column (200). The sub-system (100) comprises one or more mixer settlers (110) connected in series, and the column (200) comprises either a mixing section (260) comprising an agitation means (261) and/or a static section (280) comprising an internal (281). The first outlet (131) of the mixer settler sub-system (100) is in fluid communication with the first inlet (221) of the column (200) and the second inlet (112) of the mixer settler sub-system (100) is in fluid communication with the second inlet (222) of the counter-current liquid-liquid extraction column (200). The invention further relates to a counter-current liquid-liquid extraction process for using said system 1. The present invention further relates also to the use of the system (5) or process in removing aromatic compounds from organic streams, in treating an oil stream of a refinery, or in a liquid-liquid extraction process having at least two feed streams of different viscosity, similar density, or low interfacial tension.

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