

Title (en)
PURIFICATION OF OIL-POLLUTED WATER AND DEVICE SUITABLE THEREFOR

Title (de)
REINIGUNG VON MIT ÖL VERSCHMUTZTEM WASSER UND HIERFÜR GEEIGNETE VORRICHTUNG

Title (fr)
PURIFICATION D'EAU SOUILLÉE PAR DE L'HUILE ET DISPOSITIF APPROPRIÉ POUR CELA

Publication
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Application
EP 13789327 A 20131112

Priority
• EP 12192334 A 20121113
• EP 2013073595 W 20131112
• EP 13789327 A 20131112

Abstract (en)
[origin: EP2730548A1] The process comprises supplying mixture of oil and contaminated water to a container (48), which includes an ultrafiltration unit (52) having a membrane (30), adding protective material to the membrane using a flow path during purification of the mixture, purifying the mixture to obtain clear water (44), discharging the purified water in downstream of the membrane of ultrafiltration unit, and discharging concentrated mixture from the container by reducing oil from the clear water. The protective material is applied as a film. An additive is added to the mixture. The process comprises supplying mixture of oil and contaminated water to a container (48), which includes an ultrafiltration unit (52) having a membrane (30), adding protective material to the membrane using a flow path during purification of the mixture, purifying the mixture to obtain clear water (44), discharging the purified water in downstream of the membrane of ultrafiltration unit, and discharging concentrated mixture from the container by reducing oil from the clear water. The protective material is applied as a film. An additive is added to the mixture, and contains the protective material and a precipitating agent. The precipitating agent is added in a concentration of 1-5 mg/l, which is sufficient to form an oil separation by precipitation processes or chemical reactions. The protective material has hydrophilic micro-particles having predetermined maximum size. The mixture is supplied from a supply tank, and is supplied back to a storage tank. The protective material is removed by backwashing of the membrane against a flow direction during operation. Independent claims are included for: (1) a method for production of purified process water for promotion and/or refinery of petroleum; (2) a process for production of crude oil; and (3) a device for purification of a mixture of oil and contaminated water.

IPC 8 full level
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CPC (source: EP US)
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