

Title (en)

METHOD FOR PURIFYING COKE WASTE WATER USING A GAS-PERMEABLE MEMBRANE

Title (de)

VERFAHREN ZUR REINIGUNG VON KOKEREIABWASSER MIT GASDURCHLÄSSIGER MEMBRAN

Title (fr)

PROCEDE POUR L'EPURATION D'EAUX USEES DE COKERIE A L'AIDE D'UNE MEMBRANE PERMEABLE AUX GAZ

Publication

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Application

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Abstract (en)

[origin: CA2523360A1] The invention relates to a method for purifying coke waste water that is charged with nitrogen compounds, cyanides and sulfides. According to the inventive method, the coke waste water passes through a reactor (3) that is integrated into a liquid cycle (2) and that comprises at least one gas-permeable membrane tube (5) whose interior is impinged upon by an oxygenous pressurized gas (4). On the exterior of the membrane tube (5) which is immersed in the liquid, a biofilm (6) is maintained in whose inner region (7) rich in oxygen due to the gas-permeability of the membrane tube (5) nitrogenous compounds are selectively nitrified to nitrates while at the same time nitrates are denitrified to elemental nitrogen in an oxygen-poor outer region (8) of the biofilm (6).

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