

Wastewater Treatment from Heavy Metals by Nanofiltration and Ion Exchange

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Abstract : The technologies of ion exchange and nanofiltration can be used for treatment of wastewater containing copper and other heavy metal ions to decrease the environmental risks. Nanofiltration characteristics under water treatment of heavy metals have been studied. The influence of main technical process parameters - pressure, temperature, concentration and pH value of the initial solution on flux and rejection of nanofiltration membranes has been considered. And ion exchange capacities of resins in removal of heavy metal ions from wastewater have been determined.

Keywords : exchange capacity, heavy metals, ion exchange, membrane separation, nanofiltration

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