

METHOD FOR REMOVING IONIC SPECIES FROM DESALINATION UNIT

Abstract

A method for removing ionic species from a desalination unit, comprises: (a) circulating a wash stream in a closed loop comprising a desalination unit (c) and a precipitation unit (3), the wash stream flowing at a linear velocity of at least 5 cm/second through the desalination unit, the wash stream becoming more saline after passage through the desalination unit; and (b) removing a portion of calcium sulfate from the wash stream by precipitation in the precipitation unit to obtain a supersaturation degree of calcium sulfate in the wash stream entering the desalination unit in a range of from about 1.0 to about 3.0. The desalination unit is either a super capacitive desalination or an electrodialysis.

Fig 1