

ABSTRACT

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APPARATUS AND METHOD FOR CRYSTALLISATION

The present invention relates to the distillation and crystallization of feed water. In particular, the present invention relates to the distillation and crystallization of industrial wastewater or saline or brackish water.. The present invention relates to both an apparatus
10 and method for carrying out the distillation. In an aspect of the present invention, there is provided a distillation apparatus comprising: (a) an crystalliser for evaporating a feed water to produce water vapour; (b) adsorption means in vapour communication with the crystalliser for reversibly adsorbing the water vapour from the crystalliser; and (c) desorbing means for desorbing the adsorbed water vapour from the adsorption means, wherein the
15 crystalliser evaporates the feed water under pressure that is substantially lower than atmospheric pressure to form a concentrated solution or slurry comprising crystallised solids.

(Figure 1)