

Interactive comment on “Bio-purification of drinking water by froth flotation” by Ghanim Hassan and Robert Edyvean

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All the comments are taken into account.

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1 **Bio-purification of drinking water by froth flotation**
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6 Key words: Froth flotation, Bacteria bio-purification, Drinking water.
7 **Abstract**
8 Recently, a process was developed for continuous removal of bacteria from water using the
9 principle of froth flotation through compressed air only without any chemicals (Hassan, 2015).
10 This work examines the extent to which chemical free froth flotation can purify drinking water.
11 The experiments were carried out using two flotation columns with different column heights, each
12 equipped with ceramic air sparger. Raw water containing bacteria was fed into the column from
13 the top. Air was pumped through the water enough to produce a froth which separated the bacteria
14 and, when removed, the bacterial content measured.
15 The results show that the bacterial concentration can be reduced by 55% of its original
16 concentration under the optimal experimental conditions so far found. This suggests that the
17 technique can be used as a pre-purification step to minimize the use of disinfectants; hence their
18 byproducts, and to control biofilm growth.
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Fig. 1.

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