

ABSTRACT OF DISCLOSURE

BIOREACTOR SYSTEM FOR MULTI-STAGE BIOLOGICAL WASTEWATER TREATMENT

A bioreactor system for microbiological treatment of wastewater including: at least one highly-flexible substrate for providing a superficial environment conducive for supporting biomass growth, the substrate including: (a) a large plurality of threads disposed in a generally longitudinal direction and including a plurality of synthetic filaments, and (b) at least two cross-support elements disposed across and associated with the plurality of threads, so as to provide support for and loosely associate the threads, wherein opening defined by (i) adjacent threads of the threads, and (ii) adjacent cross-support elements of the elements, have an aspect ratio exceeding 50 to 1.

Figure 1