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(71) Applicant: EMEFCY LTD. [IL/IL]; 7 Ha'eshel St,
 Caesarea Industrial Park, P.O. Box 3171, 3088900
 Caesarea (IL).

(72) Inventors: SHECHTER, Ronen-Itzhak; 25 Hatamar St.,
 3653058 Kiryat Tivon (IL). LEVY, Eytan Baruch; 34 Ha-
 Ilanot St., 4857073 Rosh Ha-ain (IL). ESHED, Lior; 28
 Holland St., 3498748 Haifa (IL). BAR-TAL, Yaron; 17
 Har Sinay St., 5591947 Ganey Tikvah (IL). SPECTOR,
 Tomer; 7/13 Israel Idud St., 4970707 Petach Tikva (IL).
 SIEGEL, Noam Mordechai; 11 Harav Kook St., 6330248
 Tel-Aviv (IL).

(74) Agent: MORAG-SELA, Tamar; Reinhold Cohn And
 Partners, 26A HaBarzel St., 6971037 Tel Aviv (IL).

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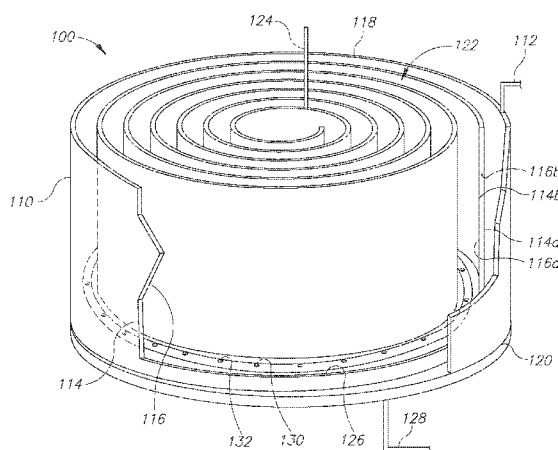


Figure 1

(57) Abstract: The present disclosure provides a water treatment module, a bioreactor comprising one or more of such modules and a receptive water treatment system. Also provided herein is a method making use of the above module, bioreactor and system. The water treatment module comprises (i) at least one elongated gas enclosure comprising a gas inlet and two vertical walls, at least one vertical wall comprising a water-impermeable and gas-permeable membrane having a water-facing side and a gas-facing side, the two vertical walls separating between water external to said enclosure and gas within said enclosure, the gas enclosure being in a rolled or folded configuration to thereby define a convoluted horizontal path and one or more water-treatment spaces formed between opposite water-facing sides of the enclosure; and (ii) a diffuser arrangement comprising gas diffusers configured for introducing a stream of gas into the one or more water treatment spaces.

