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(71)(72) Applicant and Inventor: BERKMAN, Eliezer (IL/IL); HaRoah Street 100, 52401 Ramat Gan (IL).		
(74) Agent: WOLFF, BREGMAN AND GOLLER; P.O. Box 1352, 91013 Jerusalem (IL).		
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(54) Title: A SYSTEM FOR PURIFICATION OF DOMESTIC HOUSEHOLD EFFLUENT

(57) Abstract

The invention provides a system (10) for treatment and purification of domestic household effluent, and for the elimination within said system of organic solid wastes, comprising means (12, 14) for separately collecting first and second constituents of the sewage of a domestic residential unit, lavatory sewage comprising said first sewage constituent, and bath, shower, wash basin, laundry, kitchen sink sewage and the like comprising said second sewage constituent, a first and a second dual-purpose vessel (22, 24), being arranged so that during the time period that one of said vessels (22) receives said first sewage constituent and acts as a collector and settling tank, the remaining vessel (24) operates as an anaerobic reaction vessel, the vessel operating as an anaerobic reaction vessel carrying out a decomposition process during which the volume of sludge (34) contained therein is greatly reduced by conversion to compost and gas, at least one aerobic reaction vessel (40) connected to receive an aqueous slurry containing floating organic solids from said collector and settling tank (22), at least one aerator (42) connected to said aerobic reaction vessel (40) for oxygenating said slurry, a separation and settling vessel (46) for receiving therein aerated and bioaerobic reacted slurry from said aerobic reaction vessel (40), a lower storage vessel (56) receiving said second constituent an upper storage vessel (58) providing water for toilet flushing and second pumping means (60) for transferring said second constituent from said lower storage vessel (56) to said upper storage vessel (58).

