

Title (en)  
ACTIVATED SLUDGE METHOD AND DEVICE FOR THE TREATMENT OF EFFLUENT WITH NITROGEN AND PHOSPHORUS REMOVAL

Title (de)  
BELEBTSCHLAMMVERFAHREN UND VORRICHTUNG ZUR BEHANDLUNG VON ABWASSER MIT STICKSTOFF- UND PHOSPHOR-ENTFERNUNG

Title (fr)  
PROCEDE AUX BOUES ACTIVEES ET DISPOSITIF DE TRAITEMENT DES EAUX USEES AVEC ELIMINATION DU PHOSPHORE ET DE L'AZOTE

Publication  
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Application  
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Abstract (en)  
[origin: WO0212133A1] The invention relates to a device and method for the treatment of effluent with activated sludge in suspension, for the removal of nitrogen and phosphorus and for simultaneous sludge stabilisation. An activated chamber (5, 6) is provided with a fermentation zone (5), a denitrification zone (6) and a nitrification zone (7), whereby the fermentation zone (5) and the denitrification zone (6) in the activated chamber (5, 6), are separated by scum boards (3) and overflow barriers (4) in the direction of flow, giving rise to ascending flow and descending flow chambers in the anaerobic fermentation zone (5) and the denitrification zone (6). The residence time and concentration of the activated sludge in the anaerobic fermentation zone (5), the denitrification zone (6), the nitrification zone (7) and the settling tank (14) may be controlled by means of changes to the intensity of recirculation of the effluent-sludge mixture in the anaerobic fermentation zone and recirculation of the recycled sludge to the denitrification zone, or by changing the continuous and short-term, intermittent operation of the recirculation within predetermined time intervals, to follow fixed temporal sequences (corresponding to the given daily variations in effluent amount and loading).

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