1. Record Nr. UNISALENTO991001890919707536

Autore	Aeschylus
Titolo	Agamennone ; Coefore ; Eumenidi / Eschilo ; a cura di Dario Del Corno ; traduzione di Raffale Cantarella
Pubbl/distr/stampa	Milano : A. Mondadori, 1995
ISBN	8804400471
Descrizione fisica	XXXVIII, 294 p. ; 20 cm
Collana	Oscar classici greci e latini ; 88
Altri autori (Persone)	Cantarella, Raffaele Del Corno, Dario
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Testo greco a fronte

2. Record Nr. UNINA9910346873903321

Autore	Handajani Marisa
Titolo	Degradation of whey in an anaerobic fixed bed (AnFB) reactor
Pubbl/distr/stampa	KIT Scientific Publishing, 2004
Descrizione fisica	1 online resource (XIII, 135 p. p.)
Collana	Karlsruher Berichte zur Ingenieurbiologie
Soggetti	Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	An Anaerobic Fixed Bed (AnFB) reactor was run as an upflow anaerobic reactor with an arrangement of supporting material for growth of a biofilm. The supporting material was made from Liapor-clay-polyethylene sinter lamellas (Herding Co., Amberg).The AnFB reactor was used for treating high concentrations of whey-containing wastewater. Optimal operating conditions for whey treatment at a concentration of COD in the influent of around 50 g whey·l-1 were found for a hydraulic retention time (HRT) in the range of 4-8 days or an organic loading rate (OLR) less than 10 kg COD·m-3·d-1. This is a higher load than normally applied in praxis reactors.Accumulation of volatile fatty acids (VFAs) happened when the AnFB was supplied with surplus whey solution at a high OLR or when it was oxygenated. VFAs were accumulated faster when the HRT was changed from 12 days to 6 days compared to a change of HRT from 6 days to 4 days. However, at a HRT of 6 days, the accumulated VFAs were completely degraded after an adaptation period of about 5 days, whereas the accumulated VFAs at a HRT of 4 days remained constant upon time and could not be degraded during further incubation.The conversion process (acetogenesis and methanogenesis) of VFAs was influenced by the pH in the reactor. Acetate and n-Butyrate were converted faster at neutral or slightly alkaline pH, while propionate was degraded faster at slightly acidic pH-value. The population in the AnFB contained hydrogen-utilizing methanogenic bacteria, formate-utilizing methanogenic

bacteria, methanol-utilizing methanogenic bacteria, acetoclastic methanogenic bacteria and sulfate-reducing bacteria as the final-stage organism of whey degradation. Acetogenic and methanogenic bacteria grew slower and were present at much lower numbers than acidogenic bacteria. This made the acid degradation rate less than the acid production rate. The minimal HRT in the whey reactor was thus dependent on acid degradation rates. Acetate-utilizing methanogens seemed to be unable to grow as single cells. They preferred to grow in a particulate or attached manner on a support material. The biofilm on the support materials provided a lower redox potential and an anaerobic environment that was obligately needed by these bacteria. The addition of a reducing agent was necessary to keep the few culturing acetoclastic methanogens in suspended cultures active. H2/CO2 was the best methanogenic substrate for the bacteria in the effluent suspension of whey reactor, followed by formate and methanol. The least degradable substrate in suspension cultures was acetate. The optimal H2 gas concentration for methanogens was provided at 2.25 bar.Ferric ions addition or the addition of a mix of minerals improved acetate degradation and methane production rates more than two-folds. The redox potential + reducing agent was low enough for methanogenesis. An AnFB-reactor would be a suitable means for stabilizing wastewater from dairy processing. Liapor-clay-polyethylene sinter lamellas in a regularly arrangement could be the substratum for biofilm formation. A minimum HRT of 4-6 days should be planned or a maximum OLR rate 10 kg COD·m-3·d-1 not exceeded.