

Search

Alerts

Lists

My Scopus

[Back to results](#) | 1 of 1[Full Text](#) | [View at Publisher](#) | [Export](#) | [Download](#) | [Add to List](#) | [More...](#)

Jurnal Teknologi

Volume 77, Issue 24, 2015, Pages 23-28

[Open Access](#)

Evaluation of entrapment potentiality and turbidity removal efficiency of fungi (Article)

Jebun, N., Al-Mamun, A. , Alam, M.Z., Karim, M.I.A., Raus, R.A. 

Bioenvironmental Engineering Research Centre (BERC), Department of Biotechnology Engineering, International Islamic University Malaysia (IIUM), Jalan Gombak, Kuala Lumpur, Malaysia

Abstract

Turbidity and suspended solids concentration promotes a number of negative effects on freshwater ecosystems. Conventionally suspended solids and **turbidity** are removed from raw water by various chemical coagulants but most of them are costly and non-ecofriendly. Whereas, the biofloculants are environment-friendly and could be used as coagulants. Extracellular polymeric substances (EPS) produced by microorganisms play a definite role to reduce the **turbidity** of river water which can enhance the aesthetics of river water and other water uses. In this study, pellets /flocs have been observed of five filamentous **fungi** isolated from Pusu river water. The strains RWF-01, RWF-02, RWF-03, RWF-04 and RWF-05 showed a good **entrapment** capability and flocculating rate of 97.56%, 99.42%, 99.18%, 59.34% and 85.21% to kaolin suspension and 44.54%, 99.27%, 98.59%, 28.57% & 68.43% to river water respectively at 48h of culture time. The result showed the clay particles of river water and kaolin has entrapped by the microbial growth and, as a result, they reduced the **turbidity** of river water. © 2015 Penerbit UTM Press. All rights reserved.

[View references \(24\)](#)

Author keywords

Filamentous **Fungi**; Flocculation; Kaolin clay; River water; **Turbidity**

ISSN: 01279696 Source Type: Journal Original language: English

DOI: 10.11113/jt.v77.8697 Document Type: Article

Publisher: Penerbit UTM Press

References (24)

[View in search results format](#)

Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert](#) | [Set citation feed](#)

Related documents

Microbial exopolysaccharides as efficient biofloculants in wastewater treatment

Chouchane, H. , Neifar, M. , Jaouani, A.

(2015) Wastewater Treatment: Processes, Management Strategies and Environmental/Health Impacts

Recent advances in extracellular biopolymer flocculants

Salehizadeh, H. , Yan, N.

(2014) Biotechnology Advances

A novel biofloculant produced by a salt-tolerant, alkaliphilic and biofilm-forming strain *Bacillus agaradhaerens* C9 and its application in harvesting *Chlorella minutissima* UTEX2341

Liu, C. , Wang, K. , Jiang, J.-H.

(2015) Biochemical Engineering Journal

[View all related documents based on references](#)

Find more related documents in Scopus based on:

[Authors](#) | [Keywords](#)