International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.11 No.02, pp 35-39, 2018

Comparative study of natural decolourizing agents for degradation of melanoidin present in biomethanated molasses spent wash

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Abstract : Molasses Spent Wash (MSW) is pollution intensive waste water generated by ethanol distilleries. It retains very dark brown colour and severe pungent smell due to the presence of water soluble recalcitrant melanoidin pigment. In present laboratory scale study, removal of melanoidin from MSW was investigated using different cost effective decolorizing agents. The effect of various molasses concentration (10-100% v/v) along with different combination of soil, bagasse, jagerry and fly ash was studied to estimate the removal efficiency. Results indicate that maximal reduction of colour removal of 85% was achieved by using combination of soil and bagasse at molasses concentration of 100% and contact time of 24 days.

Key words : Spent Wash; Soil, Bagasse, Fly Ash, Colour.

Ajay Kumar *et al* /International Journal of ChemTech Research, 2018,11(02): 35-39.

DOI= http://dx.doi.org/10.20902/IJCTR.2018.110206

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