
## Abstract

Fifty yeast colonies were isolated from soil and eleven of them were selected for oil production. Five yeast strains were designated as oleaginous because they produced more than 16% of oil based on their biomass. The isolate IIB-10 produced maximum amount of lipids i.e. 22.8%. More amount of biomass was achieved when cane molasses was utilized as carbon source where it produced 29.4 g/L of biomass while sucrose and lactose were not fermented by IIB-10 and no biomass was obtained. Similarly, meat extract showed best results when it was used as nitrogen source because it produced 35.8 g/L biomass. The culturing conditions like size of inoculum, effect of pH and time of incubation were also studied. The 10% of inoculum size produced 25.4 g/L biomass at 120 h incubation time, while the pH 7 was the optimum pH at which 24.8 g/L biomass was achieved. GC-MS analysis showed that biodiesel produced by transesterification contained similar fatty acids as found in vegetable oil for this reason it is widely accepted feedstock for biodiesel production.