

Minimum speed of stirrer rotation (Njs) and its effect on pyritic sulphur removal in biological coal desulfurisation

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20407243&lokasi=lokal>

Abstrak

A small batch reactor complete with a stirrer was used to conduct biological coal desulphurisation using a mixed culture, dominated by *Thiobacillus ferrooxidans*. Using the Zwietering formula, the minimum speed of stirrer rotation for the reactor to maintain the coal and medium in a state of complete suspension was calculated. The amount of pyritic sulphur removal was affected by a change in the speed of the stirrer rotation. The result showed that a change in stirrer rotation from 125 rpm to 175 rpm caused an increase of pyritic sulphur removal whereas if the coal slurry concentration increased to 25% and 35% w/v, there was a decrease.