

Evaluation on partial discharge activity of palm oil toughened with iron oxide nanoparticles

ABSTRACT

This research provides an evaluation of partial discharge (PD) behaviour in palm oil toughened with iron oxide nanoparticles. PD may occur between conductors in the liquid insulation system during in-service operation. Samples were prepared with varying percentages of iron oxide nanoparticles; at low, medium and high concentrations. The results show that the presence of low concentration iron oxides nanoparticles reinforce palm oil resistance towards PD.