

Investigation of transformer oil by nuclear magnetic relaxation and Z-scanning

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Abstract

GK-grade transformer oil is investigated by methods of nuclear magnetic relaxation and Z-scanning. The size of the heterogeneous structures in the oil increases during its service. The solid-particle content in the liquid phase, however, remains essentially unchanged, and the excess particles precipitate. The feasibility of quantitative determination of the heterogeneous-structure/ liquid ratio in oil samples investigated is discussed. © 2013 Springer Science+Business Media New York.

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Keywords

nuclear magnetic relaxation, transformer oil, Z-scanning