Natural Gas Research Progress.

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Since power transformers are critical to the reliable operation of every power grid, ways to prevent incipient electrical failures extend their life expectancy and improve preventive maintenance procedures have become increasingly important. The physicochemical degradations and up to date standardized assessment techniques of mineral oils are presented. Problems with current laboratory analysis and new ways to enhance the service reliability are discussed in this chapter. The intention is to propose more accurate ASTM test methods, capable of monitoring the decay process of mineral insulating oils step by step. Hence, the impact of oil's real purity on the gassing of liquid insulation can be quantitatively determined. Thus, the maintenance of oil in pristine conditions for the lifetime of transformers becomes cost effective.

Application of Petroleum-Based Oil in Power Transformer

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ABSTRACT

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