The Specific Heat Capacity of Transformer Oil from 253K to 353K

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Transport properties of transformer oil are important parameters for electric equipment designing. In this work, specific heat capacity of transformer oil was measured from 253K to 353K using flow calorimetry. At the same time, the influence of the transformer oil's specific heat capacity was investigated. The specific heat capacity of transformer oil increases linearly with increasing temperature. Above all, the specific heat capacity of transformer oil is seldom influenced by refining depth and additives, while mainly affected by hydrocarbon composition. Different hydrocarbons have different effects on the specific heat capacity, and the order is alkanes; hydrocarbon composition; specific heat capacity; viscosity; flow calorimetry.