Modelling of Transformer Vacuum Drying Process

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Abstract
Widely used material for instrument transformer electrical insulation is an electrical grade paper impregnated with mineral oil. As moisture inside transformer insulation increases the risk of premature failure, before being impregnated, transformer is subjected to a vacuum drying process which usually consists of combined cycles of heat and vacuum application.
This work is focused on modelling the vacuum drying process and analysing how different drying regimes influence the moisture content of transformer paper at the end of a given cycle.