

Recovery of Electromagnetic Coils Insulation under Varying Conditions in ADITYA-U Tokamak

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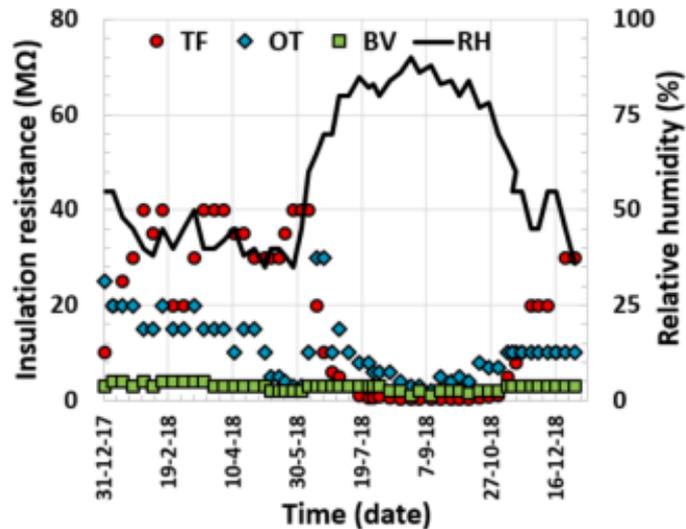


Figure: Typical insulation resistance and relative humidity profile over a period of time for different electromagnetic coils in ADITYA-U tokamak.

It is important to measure and analyze the insulation of electromagnetic coils in ADITYA-U tokamak under different operating conditions to interpret the decisive factors preceding the insulation breakdown. There is a need for methods to perform diagnostics on the coil insulation to enable condition-based maintenance before the development of a fault that could cause catastrophic damage. Insulation dryness has been chosen as a routine test for any insulation material. Proper measures are incorporated to improve the insulation resistance of magnetic coils by conditioning the coil in case of high humidity values with proper heating techniques.

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