

**Evaluation Technique of High Voltage Insulators
under Contamination Environments**

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The high voltage insulator may be soiled by the humidity in the atmosphere, dust, smoke (especially in industrial regions) and salt pollution in seaside areas; accordingly the surface resistance of the insulator may decrease, and the increase of the leakage current may cause insulation breakdowns. Since an insulation breakdown may have an adverse effect on railway traffic control, it is suitable that the high voltage insulator is hard to be soiled in addition to having high repellence and a form with a long leakage distance. In this study, we aimed to develop a technique for evaluating the performance degradation of polymer insulators whose introduction is commenced in heavy corruption areas. Moreover, an effective preservation inspection method for polymer insulators is proposed through a test result.