

高电压技术

开关设备中SF6气体分解产物检测的应用

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摘要:

运行经验表明,通过检测开关设备中SF6气体分解产物对设备内部绝缘进行故障诊断和状态评估,具有抗干扰能力强、灵敏度高等优势,被广泛用于设备现场检测分析。通过分析开关设备的SF6气体检测理论,在SF6气体分解产物检测技术的指导下,对运行中设备、故障设备和型式试验后设备的SF6气体分解产物进行检测和结果分析,确定了设备在不同状态下的SF6气体组分及其含量。基于大量设备的SF6气体分解产物现场检测结果,指出了SF6气体绝缘设备故障的特征气体及其在设备故障诊断中的应用前景。

关键词:

Application of Decomposition Products Detection of SF6 in Switchgears

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Abstract:

Field experiences show that the fault diagnosis and state estimation of internal insulation of power equipment by detecting the decomposition products of SF6 in switchgears possess the advantages such as high anti-interference ability and high sensitivity and so on, so they are widely utilized in field detection and analysis of internal insulation of equipment. By means of analyzing the gas detection theory for SF6 in switchgears and under the guidance of detection technology for decomposition products of SF6, the detection and result analysis on decomposition products of SF6 in equipment being operated, faulty equipment, the post-type-test equipment are performed, then the gas compositions of SF6 and their contents in equipment in different states are determined. Based on field detection results of decomposition products of SF6 in lots of equipment, the characteristic gas to characterize the feature of the fault occurred in SF6 gas-insulated equipment as well as its application prospect are pointed out.

Keywords:

收稿日期 2010-05-21 修回日期 2010-06-17 网络版发布日期 2010-09-08

DOI:

基金项目:

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