

DC and AC dielectric properties transformer oil based magnetic fluid.

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The development of electric breakdown in magnetic fluids (MFs) has been analyzed. MFs have been consisted of magnetic particles (Fe₃O₄) of nanometric size, coated with oleic acid as a surfactant, dispersed in transformer oil. The electro-physical processes, which appear at action of the DC and AC electric field and constant magnetic field on MFs, were observed. These processes have effect on electric breakdown.

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