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Numerical simulation of anode activity under action of high-current vacuum arc LIJUN WANG, SHENLI JIA, DINGGE YANG, KE LIU, LIUHOU WANG, State Key Laboratory of Electrical Insulation and Power Equipment, ZONGQIAN SHI — Anode activity is critical for success or failure of vacuum interrupters when arc current attains to a certain limiting value. Based on anode activity model, anode thermal process under action of high-current arc column is simulated. Simulation results show that for sinusoid current, anode surface temperature firstly increases rapidly, then decreases slower. With the increase of heat flux density to anode, anode surface temperature will be increased. The maximal value of anode surface temperature appears near 7ms moment. Simulation results also are compared with experimental results.

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