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Vacuum arc cathode spot movement on various kinds of graphite cathodes,

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Abstract: Vacuum arc spot movement on various graphite cathode materials is investigated. The dependence of the arc spot velocity on physical, mechanical and electrical properties of the different cathode materials is measured in the presence of a variable magnetic field. It is shown that the cathode spot velocity is larger on cathodes having large grain size, low electrical resistivity and higher apparent density. The spot velocity is lower for cathodes having larger pore sizes and total porosity.