FEATURES OF HEAT TRANSFER FROM ELECTRIC ARC IN COPPER VAPOUR

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S u m m a r y

Thermal balance in a free-burning electrical arc between copper melting electrodes is analyzed. It is shown that main factors of heat transfer in this arc are thermal conductivity to electrodes and thermal conductivity to the ambient atmosphere with account of a geometric factor due to ellipsoidal arc's channel. The influence of the geometric factor is essential near the periphery arc's area at the distance from the axis of order of arc's length. The system becomes spherically symmetric as the distance increases.