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TB-105: Dispenser Cathode Properties

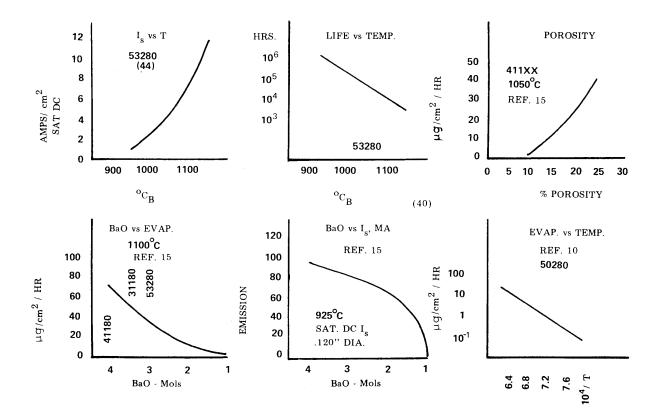
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TUNGSTEN DISPENSER CATHODES

Tungsten dispenser cathodes, in general, consist of a porous matrix with a formula of barium oxide dispersed uniformly throughout. They have been operated between 800°C and 1250°C depending upon the application. Some generalized curves taken from the literature or experience are shown below to illustrate certain key parameters.

It is apparent that custom-tailored cathodes, which can trade one property for another, can have significant advantages over a standard cathode for some applications. For example, choice of processing or design can move properties up or down on the curve or even displace a curve to the right or left.



REFERENCES CITED ON TB 104