

Abstract Submitted
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Spectroscopic analysis of light emitted from gyrotron tubes¹ L.S. RIFORD, Lehigh University, M. CENGER, J. LOHR, General Atomics — During operation of high power 1 MW class gyrotron tubes, and especially during conditioning to full operational parameters, sparkdowns and normal plasma discharges in the tubes emit light. A spectrometer can be installed on a gyrotron to look back through the diamond output window to measure the spectra of the atoms excited in a discharge. Identifying the emitted lines spectroscopically and inferring the locations from which the light is coming can lead to a better understanding of normal and abnormal gyrotron operation. Data from several gyrotrons will be presented and compared.

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