CHARACTERIZATION OF DOPANTS IN GDP MANDRELS*

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ABSTRACT

Capsules that contain doped GDP layers must be characterized for dopant concentration level and uniformity. X–ray μ-fluorescence (XRF), a nondestructive technique, is generally the method of choice for total dopant (Z > 11) level within a target. Dopant homogeneity (as well as concentration) within the target has been determined using Rutherford Back Scatter Spectroscopy (RBS). Other methods which have provided information are SEM/EDXS; combustion analyses; mass spectroscopy and thermogravimetric analysis (TGA). The calibration of the XRF for the elements (specifically Cl, Si, and Ti) will be discussed and comparisons to other destructive methods will be presented.

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Poster

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