Redefinition and Improvement of Metal Vapor Release Technology.

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Abstract: This report presents the results of laboratory investigations which involved optimization studies of advanced concepts in atmospheric release technology in terms of barium vapor yield (efficiency) and increased safety. One of the most promising reactions which was identified was the reaction between Titanium and boron (in the condensed phase) to form Titanium diboride, and heat. The heat from this reaction is used to vaporize barium. Laboratory tests of the Titanium/Boron/Barium system produced a maximum yield of Barium vapor in the amount of 41.2% of the total mixture chemical weight. (Author)


Subject Categories: ATMOSPHERIC PHYSICS
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