

by thermal evolution. B and C are each characterized by infrared spectrum, microanalysis, and X-ray diffraction patterns.

*A  $^{121}\text{Sb}$  Mössbauer Investigation of the Rare Earth Antimonides.* P. E. HOLBOURN,\* AND F. W. D. WOODHAMS, Sira Institute, Ltd., South Hill, Chislehurst, Kent BR7 5EH, England.  $^{121}\text{Sb}$  Mössbauer spectra have been obtained for the series  $\text{RSb}$  ( $R = \text{La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er, and Yb}$ ) at 78 K, and for a selection of the compounds at 5.5 K. At 78 K all the spectra show a single line. The isomer shifts are close to that of  $\text{InSb}$  and show a linear increase with increasing atomic number of the rare earth ion. Many of the rare earth antimonides exhibit a variety of magnetic and structural phase transitions at a sufficiently low temperature. Spectra obtained at 5.5 K are interpreted in terms of these phase transitions.