Structure of Sputtered Amorphous Zr-Hf-Si Alloys

A. Pojtinger, P. Lamparter, and S. Steeb

Max-Planck-Institut für Metallforschung, Seestrasse 92, D-70174 Stuttgart, Germany Reprint requests to Dr. P. L.: Fax: +49 711 2095420.

Z. Naturforsch. **54 a,** 699–703 (1999); received November 2. 1999

Amorphous $(Zr,Hf)_{37}Si_{63}$ alloys were produced by sputtering. Their total structure factors were determined by X-ray diffraction. Using the methods of isomorphous substitution and Reverse Monte Carlo simulation, the partial pair correlation functions were obtained. The results were compared with the partial functions of amorphous $Ti_{40}Si_{60}$. In the amorphous alloys under investigation the transition metal – metalloid correlation dominates the short range order.

Key words: Amorphous Zr-Hf-Si; X-ray Diffraction; RMC Model.