

Co dimers observed by EXAFS spectroscopy

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Abstract

Cobalt was introduced into a silver matrix by ion implantation and observed by Extended X-ray Absorption Fine Structure (EXAFS) spectroscopy. In the range 0.10-0.70 at.% evidence of Co dimers dispersed in the matrix was found. The dimers are somewhat contracted with respect to the bulk Co nearest neighbor distance and distributed in a chain-like configuration with each dimer at 90° from each other along opposite square faces of the Ag fcc lattice.

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