

Abstract

A particular interest has been given to the study of $\text{Fe}_{100-x}\text{Pd}_x$ ($x=15, 20$ and 36) alloys. Alloy thin films, obtained by thermal evaporation technique, have been investigated by X-ray diffraction, magnetization and Mössbauer effect measurements. All of these alloys are crystalline: a bcc phase for $x=15$ and a bcc-fcc mixed phases for $x=20$ and $x=36$. The magnetic and structural properties measurements, performed on these alloys, show the fcc phase appearance as well as the structural transition between the bcc and bcc-fcc mixed phases