عنوان مقاله:

Experimental and theoretical study on the corrosion resistance of Zr–Co–Al–Nb metallic glasses

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خلاصه مقاله:

The corrosion resistance of (Zr56Al16-Co28)100-XNbX(X = 0, 2, 4) metallic glasses in Hanks'solution were investigated by electrochemical polarizationmeasurements. Polarization curves demonstrate that theaddition of niobium into Zr–Co–Al amorphous alloysimproves the corrosion resistance. Composition andchemical status of the elements in the passive film werecharacterized by XPS, and first-principles calculationsbased on density functional theory (DFT) were used toanalyse the mechanism theoretically.

کلمات کلیدی:

Metallic glasses Corrosion DOS Firstprinciples calculation

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