*Roman YUSUPOV* {12 pt *italic*}

**PROBING MAGNETIC INHOMOGENEITY IN THIN EPITAXIAL Pd1-xFex FILMS WITH ULTRAFAST OPTICAL AND MAGNETOOPTICAL SPECTROSCOPY**
{12 pt Bold}

We present the results of a systematic study of a series of epitaxial Pd1-*x*Fe*x* films (*x* = 0 ÷ 0.08) utilizing ultrafast laser spectroscopy methods. We show that the complex multi-component character of the reflectivity transients appears below Curie temperature of the alloy. We refer it to magnetic inhomogeneity of the films. The measurements of ultrafast optical and magnetooptical responses of the diluted alloy based ferromagnetic films can shed ~~the~~ light on their magnetic homogeneity. {Not more than 500 characters with spaces, 12 pt}

Count: 491 symbol

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