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Spectral ellipsometry of cobalt-ions implanted silicon surface

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Abstract

© (2015) Trans Tech Publications, Switzerland. Monocrystalline silicon wafers implanted by cobalt ions with energy of 40 keV at a fluence range from 6.6×10^{12} to 2.5×10^{17} Co⁺-ion/cm² were investigated by optical spectroscopic ellipsometry. By comparison of experimental data with modeling it is shown that the ellipsometric measurements are accurate and reliable method for monitoring of a low-dose ion implantation process.

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Keywords

Implanted silicon, Ion implantation, Kerr effect, Magnetic layers, Spectral ellipsometry