Abstract
This paper shows a general study of the magnetic properties of Ni nanowire arrays; specifically the influence of the electrodeposition potential, length, diameter, and the magnetostatic interaction between nanowires electrodeposited in alumina membranes. The behavior of the coercivity as a function of the length and diameter of the nanowires is explained through an analytical model. Additionally, the magnetic properties as function of the temperature in Ni and the hysteresis curves of segmented Ni/Co nanowires are presented.

Keywords
Nanowires, magnetic properties, magnetic anisotropy, coercivity.