# Correlated evolution of surface morphology, structure and magnetic properties of nanoporous Co/Pd films with perpendicular magnetic anisotropy

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**Abstract:** In this study, we consider the technological route to conserve perpendicular magnetic anisotropy in porous Co/Pd multilayer thin films deposited over porous anodized templates of $TiO_2$ and $Al_2O_3$ with smoothed surface morphology. It is proved that these templates with large contribution on flat-surface interpore areas promote conservation

of high magnetic anisotropy constants $K_{eff}$ up to $1.9\times10^6$ erg/cm$^3$) and $M_r/M_S$ (up to 0.99) as well as magnetic hardening with twice increase of the coercive force $H_C$ (up to 2.7 kOe) indicating an excellent potential of the fabricated materials for various magnetic and spintronic devices.

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