

PHOTOELECTRIC PROPERTIES OF IRON AND CHROMIUM OXIDES NANOMETRIC FILMS ON THE SI <100> SUBSTRATE.

The nanometric films based on iron and chromium oxides ($\text{Fe}_2\text{O}_3\text{-X}$ ($0 \leq x \leq 1$) and $\text{Cr}_3\text{-XO}_3\text{-Y}$ ($0 \leq x \leq 2$; $0 \leq y \leq 2$)) with variable thickness, stoichiometry and photoelectrical properties were synthesized using ultraviolet photons of KrF-laser (248 nm) on the silicon substrate Si <100> at the substrate's temperature $T_S = 293^\circ\text{K}$. The samples of mono- and hybrid systems of the alternate layers $\text{Fe}_2\text{O}_3\text{-X}$ ($0 \leq x \leq 1$)/ $\text{Cr}_3\text{-XO}_3\text{-Y}$ ($0 \leq x \leq 2$; $0 \leq y \leq 2$) demonstrate photoelectric properties. The kinetics ($\lambda = 470 \text{ nm}$) of the photo-e.m.f. of the observable samples was studied and the spectral dependencies (500 ÷ 1200 nm) of the photo-e.m.f. of these samples were obtained.

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