

Fig. 1 – a) Experimental set-up for ZnO thin films deposition; b) two chamber rf beam generation.

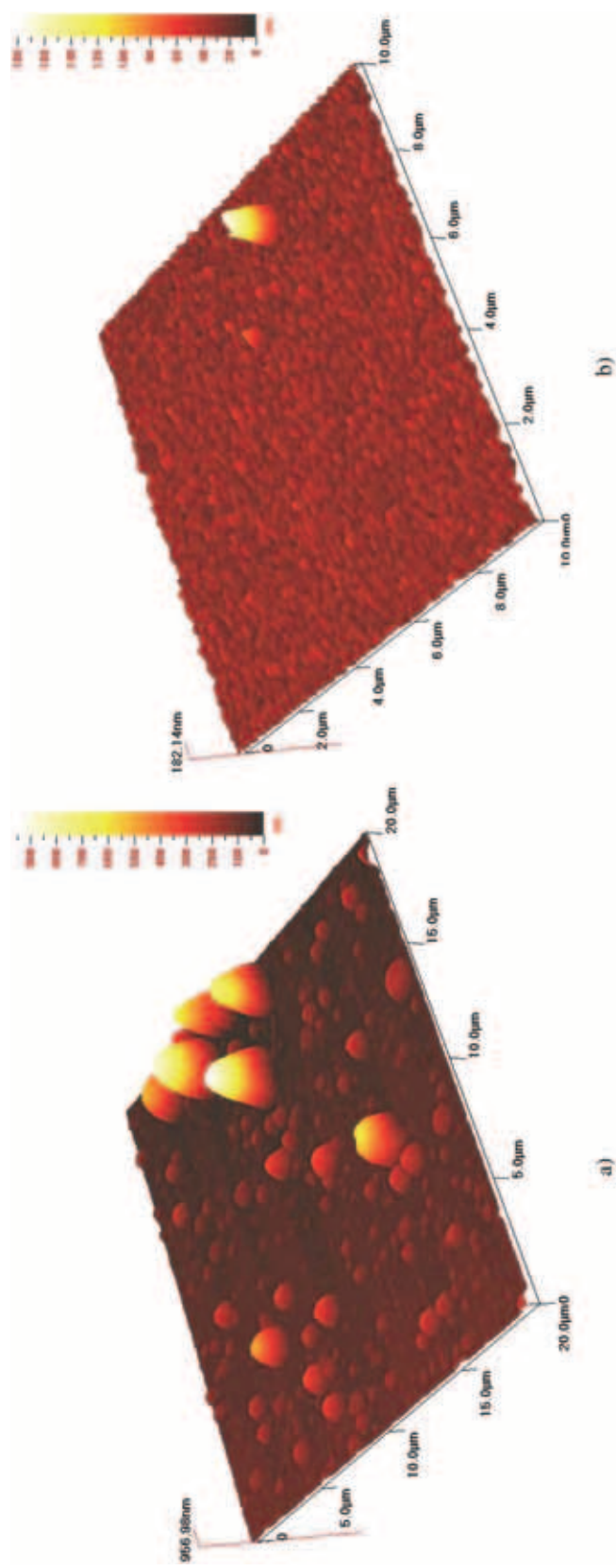


Fig. 2 – AFM images of surfaces of two ZnO layers deposited in same experimental condition: Pt/Si substrate, $\lambda = 1064$ nm, laser fluence 20 J/cm^2 , 0.05 mbar: a) no rf beam; b) 200W radiofrequency power.

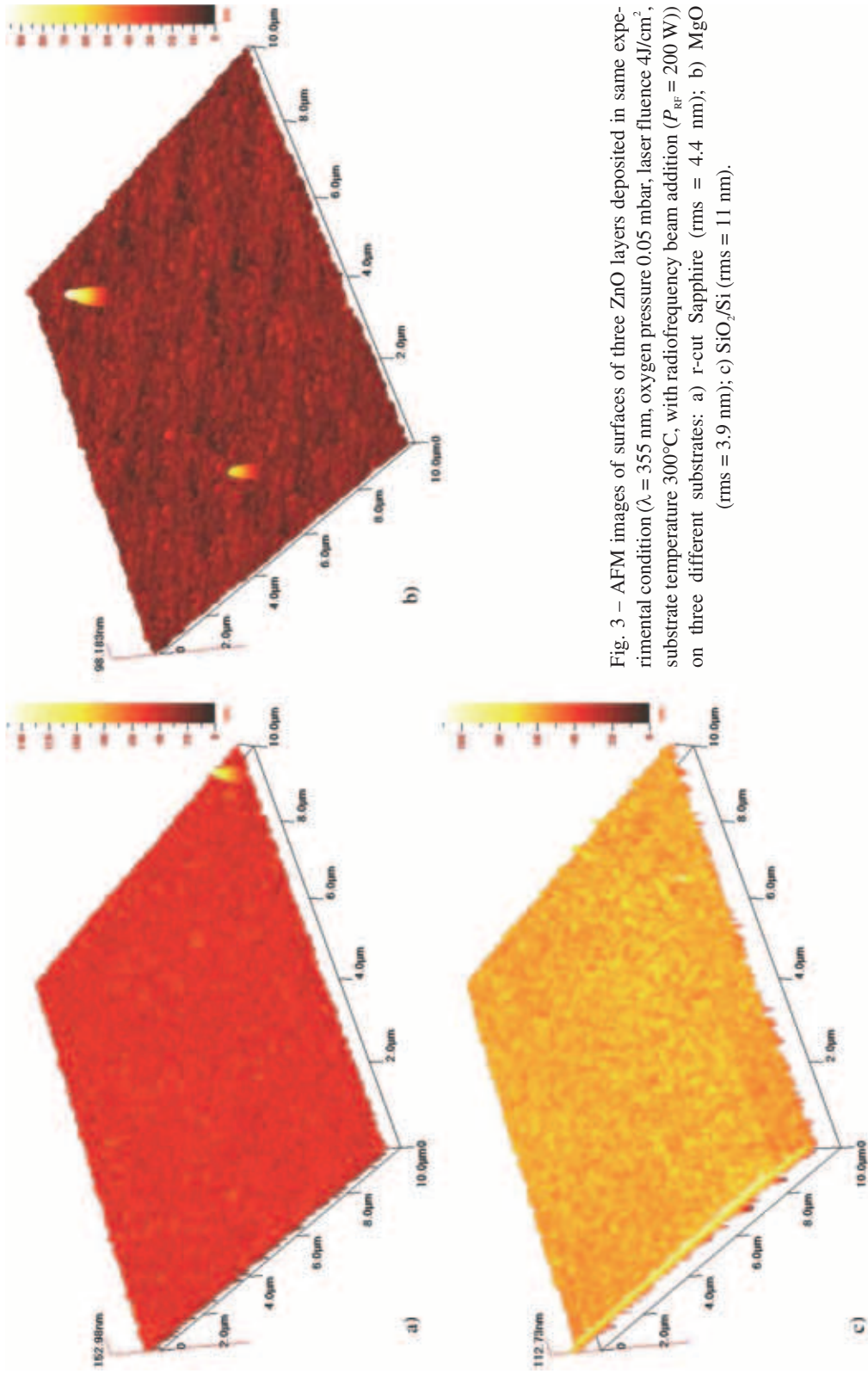


Fig. 3 – AFM images of surfaces of three ZnO layers deposited in same experimental condition ($\lambda = 355$ nm, oxygen pressure 0.05 mbar, laser fluence $4\text{J}/\text{cm}^2$, substrate temperature 300°C , with radiofrequency beam addition ($P_{\text{RF}} = 200$ W)) on three different substrates: a) r-cut Sapphire (rms = 4.4 nm); b) MgO (rms = 3.9 nm); c) SiO_2/Si (rms = 11 nm).

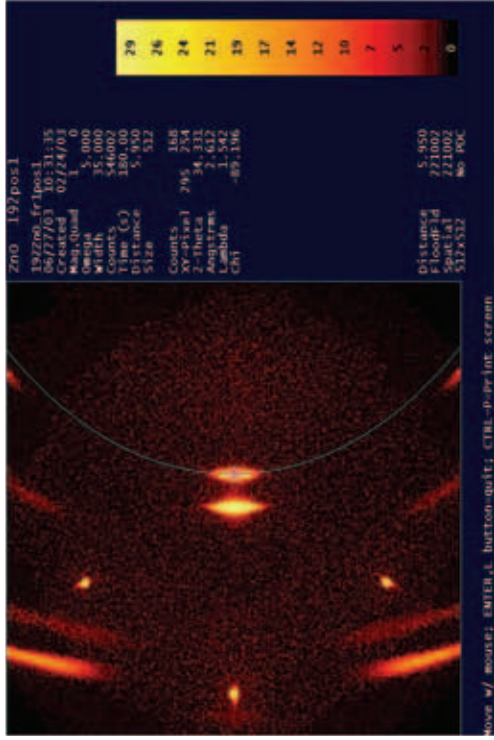


Fig. 5 – 2-dimensional X-ray diffraction pattern of ZnO film deposited on Pt-coated Si substrate, $\lambda = 1064$ nm, 20 J/cm² laser fluence, $P_{O_2} = 0.05$ mbar, $P_{RF} = 200$ W, substrate temperature 300°C.

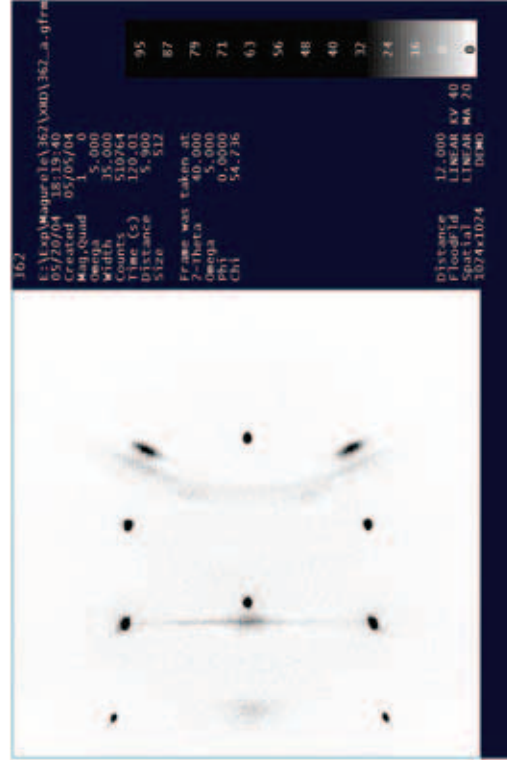


Fig. 6 – 2-dimensional X-ray diffraction pattern of ZnO films deposited on : a) r-cut Sapphire substrate and b) MgO single crystal substrate.

