

Pulsed laser deposition of oxide based thin films for spintronics

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Pulsed Laser Deposition (PLD) is a widely used technique for the growth of thin films due to its versatility, reliability and ability to control the stoichiometry of complex multicomponent materials. Furthermore, it is often possible to grow thin films with improved physical properties at temperatures as low as room temperature.

In this work, we will discuss the preparation of thin films of oxides by PLD and their structural and physical properties as a function of processing parameters. In particular, we will concentrate on materials with interest for applications in spintronics such as half-metallic ferromagnetic oxides and dilute magnetic oxide semiconductors.

Keywords: PLD, dilute magnetic semiconductors

Topic: Thin Films