

RECENT DEVELOPMENTS IN THE THIN FILM PREPARATION USING PLASMA FOCUS DEVICE

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In this work, we focus on thin film of different compounds as well as demonstrated some analysis methods coated using plasma focus (PF). Afterward, the Auger electron spectroscopy (AES), X-ray diffraction (XRD) and scanning electron microscopy (SEM) analysis have been carried out for measuring the physical, surface and topological features of the prepared thin films. Accordingly, the results are compared with other preparation techniques to depict the homogeneity, compactness and high-quality of obtained films as well. The effective parameters in the deposition of films on substrate are also discussed. Furthermore, different used substrates briefly investigated to understand dependencies between films quality and type of substrate as well as applied buffer gas such as Argon, Neon, Nitrogen and Hydrogen.

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