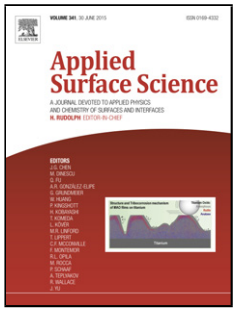

Title: Annealing-induced changes in chemical bonding and surface characteristics of chemical solution deposited $Pb_{0.95}La_{0.05}Zr_{0.54}Ti_{0.46}O_3$ thin films

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Highlights

- Influence of post-deposition annealing temperature (T_a= 550 and 750 °C) on the chemical valence state and crystalline quality of PLZT thin films was investigated.
- XPS analyses demonstrated the shift in binding energies of the constituent atoms which indicated change in chemical state with the change in T_a.
- Raman spectra revealed shift in optical modes with the change in T_a indicating the change in phase and crystallinity in the films.
- Higher T_a (750 °C) resulted in PLZT films with perovskite structure, nanocrystalline morphology, and better chemical homogeneity.