



Stress Analysis in Thin Films and Multilayers Materials

Guest Editor:

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Message from the Guest Editor

Thin films and multilayers typically present high and strongly non-uniform internal stress. Stress-induced degradation of functional thin films and coating systems poses a persistent problem in materials science and technology. The performance, reliability, and durability of material components in micro/opto-electronics applications can be dramatically affected by excessive residual stress levels (compressive or tensile). The study of stress in thin films has congregated many efforts, both from experimental and fundamental points of view, to get a better understanding on how to deal with it and, particularly, how to tailor stresses during deposition and post processing. This Special Issue is devoted to all scientific and analytical aspects related to:

-stress evaluation methods and measurement techniques (including in-situ advanced experiments)

-stress investigation, tailoring and analysis in thin films and multilayers: influence of the growth parameters on the stress formation

-role of interface reactivity and phase transformation on stress

Keywords

- stress analysis
- thin films
- multilayers
- interfacial stress





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Message from the Editor-in-Chief

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