CENIMAT
CENTRO DE INVESTIGAÇÃO DE MATERIAIS

i3N
INSTITUTO DE NANOESTRUTURAS, NANOMODELAÇÃO E NANOFABRICAÇÃO

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Place: Anfiteatro Leopoldo Guimarães-CENIMAT

NANOINDENTATION AND NANOMECHANICAL PROPERTIES OF MATERIALS

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Abstract: Nanomechanical properties of materials and systems are increasingly important in advanced technologies like nano-electronics and new materials. Therefore during the lecture an insight in the nanoindentation technique, which is the most commonly used technique with an application in nano-electronics materials (OSGs) is given. Furthermore the lecture will concentrate on in-situ nano-/micromechical testing in XRM, SEM, and TEM. On that a strong focus on recent high end applications is set. For example in-situ XRM nanomechanical studies on fiber-enforced materials and BEoL structures is shown. Additionally in-situ REM EBSD/indenation studies on novel Al materials as well as in-situ TEM mechanical testing on graphene will be discussed.

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