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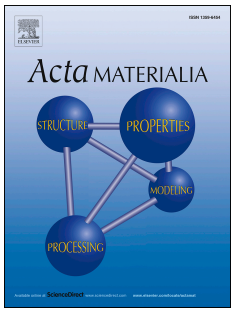

Fundamental aspects about the first steps of irradiation-induced phase transformations in fluorite-related oxides

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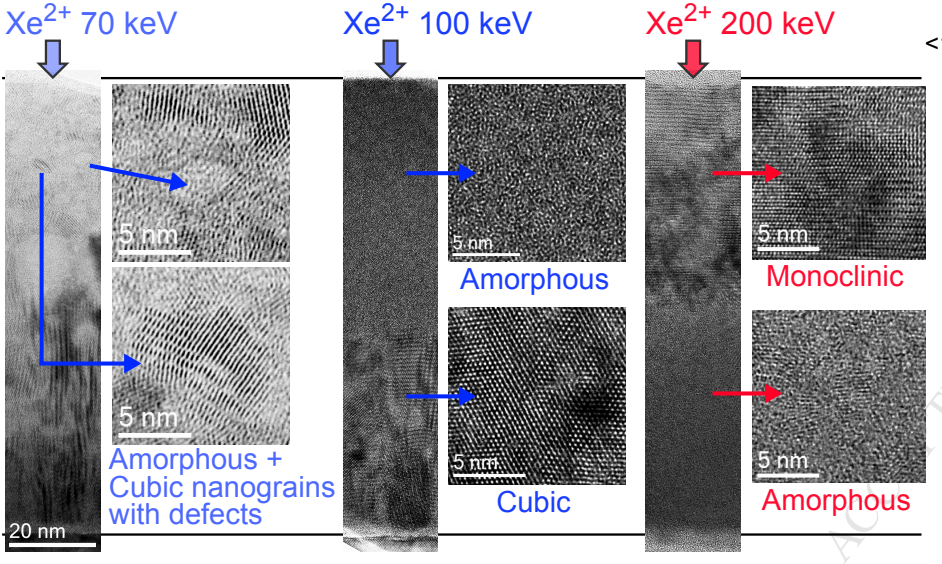
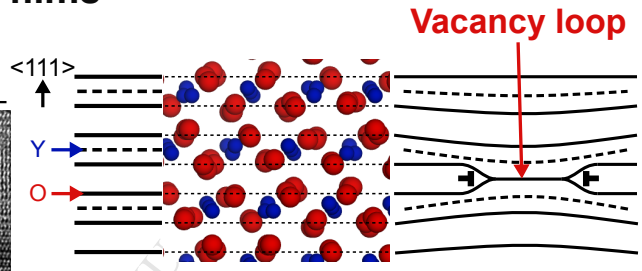
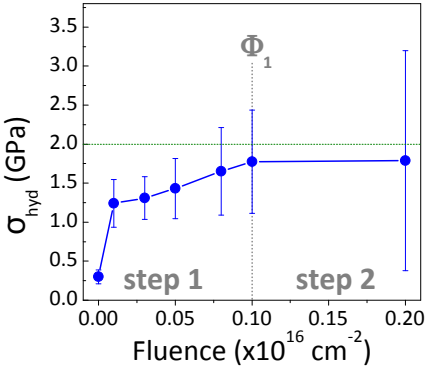
Cubic-to-Monoclinic transformation in Y_2O_3 thin films







irradiation energy dependence
intermediate amorphous state
preferential orientation relationship $(40\bar{2})^B$ // $(222)^C$

Anionic extended defects ↔ **Residual stresses**

↓

Monoclinic phase nucleation-growth