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## **Wed-Mo-Po.04-08: Effect of excimer laser irradiation on the $Y_{1-x}Gd_xBa_2Cu_3O_{7-d}$ films**

*Wednesday 2 July 2025 09:15 (2 hours)*

$Y_{1-x}Gd_xBa_2Cu_3O_{7-d}$  films were deposited by pulsed laser ablation on commercial Hastelloy tapes buffered with IBAD-MgO and LSMO layers. The films were grown with  $x$  spanning from 0 to 1 and by varying the deposition conditions.

The films were irradiated using a homogenized XeCl laser beam at varying fluence. The effect of laser irradiation on the structural properties of the films was accurately studied through standard and high-resolution X-ray diffraction and Raman spectroscopy measurements.

The evolution of the cation disorder and micro-strain has been investigated and correlated with the flux pinning properties of the films.

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