Short-range order in In$_2$O$_3$ films deposited at different temperatures by PLD

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Nominally amorphous In$_2$O$_3$ films grown by pulsed laser deposition were examined by electron scattering for extracting short- and medium-range order. Reduced density function (RDF) from scattering has been combined with density functional theory molecular dynamics (DFT MD) simulation of “liquid-quench” model. The data show decreased short-range order in films deposited below room temperature. These data are useful in unraveling the role of dopants and thermal processing on transport properties of amorphous oxides.