

# "Incorporating ErAs into InGaAlBiAs Material by Interrupted Growth: Effects on Optical and Electronic Properties Targeting Terahertz Pulse Emitters and Detectors for Telecom Wavelength Excitation"

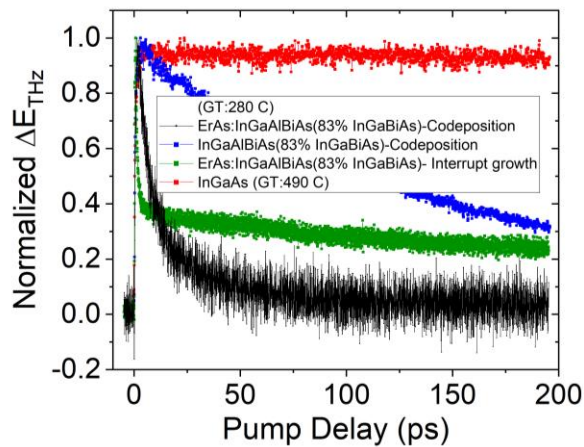
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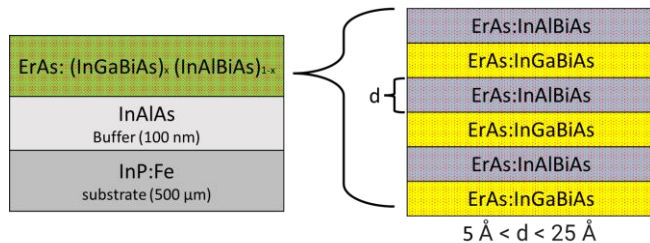
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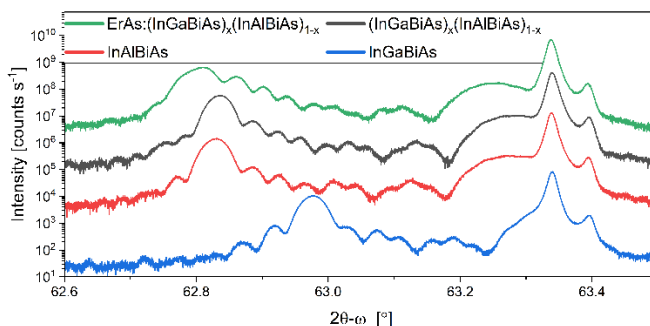
## Supplemental figures:



- Carrier dynamics measurement by Optical pump THz probe spectroscopy GT= Growth Temperature.



- Structure representation of grown material.



- High-resolution X-ray diffraction (004)  $2\theta - \omega$  coupled scans of 300 nm strained [ErAs:(InGaBiAs)<sub>x</sub>(InAlBiAs)<sub>1-x</sub>] films with ~ 3.5% Bi and ~1% ErAs.