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Laser-assisted atom probe tomography of semiconductors: the impact of the focused-ion beam specimen preparation

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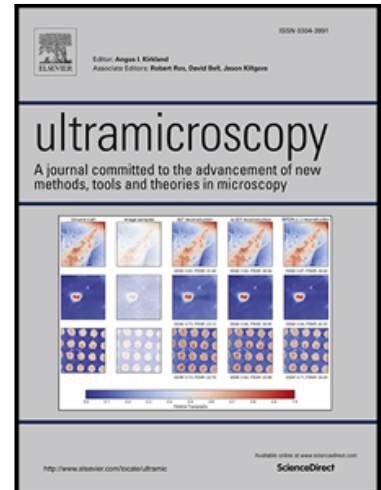
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Highlights

- Focused ion beam preparation damages and modifies the properties of atomprobe tips
- Supra-bandgap absorption is enhanced
- Sub-bandgap absorption is turned on, i.e. transparent materials turn absorptive
- Focused ion beam damage plays a major role in the physics laser-assisted field evaporation
- Focused ion beam damage may explain why atomprobe works on a priori transparent materials

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