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Sub-optimal emergence temperature alters thermotolerance of thylakoid component processes in cotton seedlings

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Highlights

- Low growth temperature negatively impacts OJIP fluorescence based parameters.
- Thylakoid component processes differ substantially in heat sensitivity.
- OJIP-derived performance indices are the most sensitive parameters to heat stress.
- Low growth temperature in the seedling stage decreases photosynthetic thermotolerance.
- Thermotolerance is primarily constrained by heat sensitivity of inter-system electron transport.

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