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Annual report on numerical study of strong terahertz radiation from cuprate superconductors

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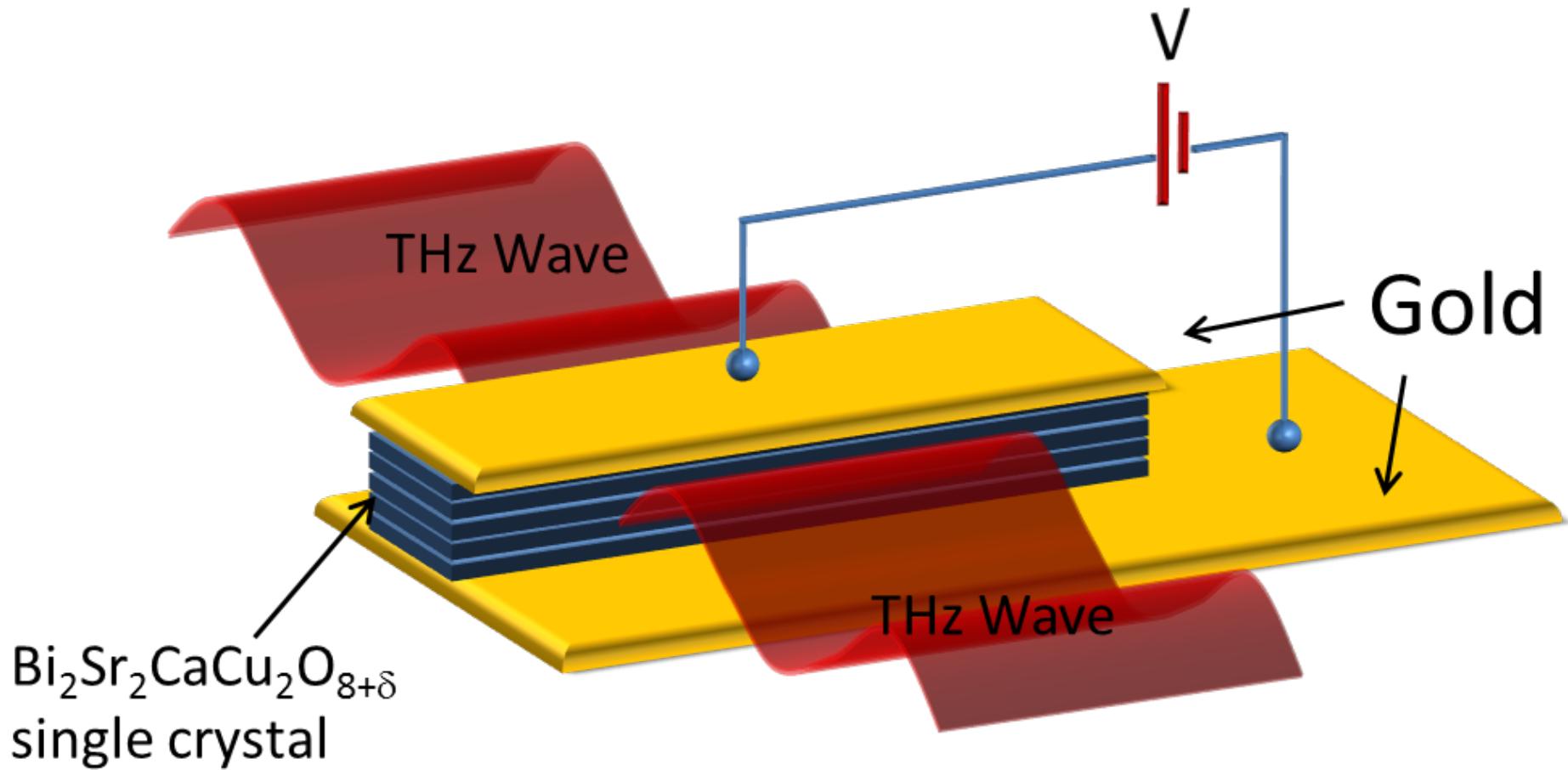


Fig. 1, schematic view of the setup for THz radiation from cuprate superconductors.

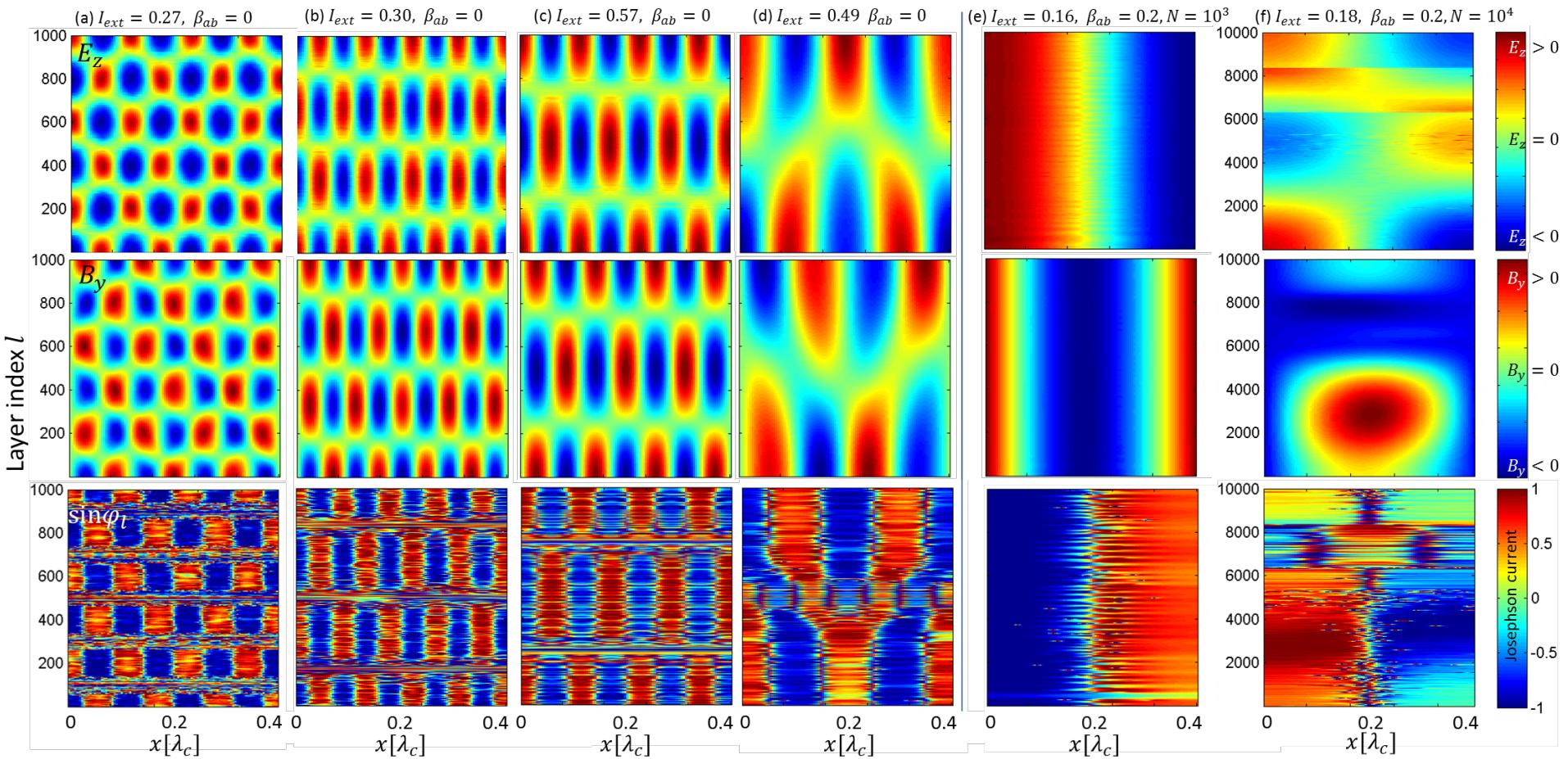


Fig. 2, numerical results on the profiles of supercurrent, electric field and magnetic field inside the cuprate superconductors at various currents and dissipations. For a strong dissipation (e), we found the system are synchronized.

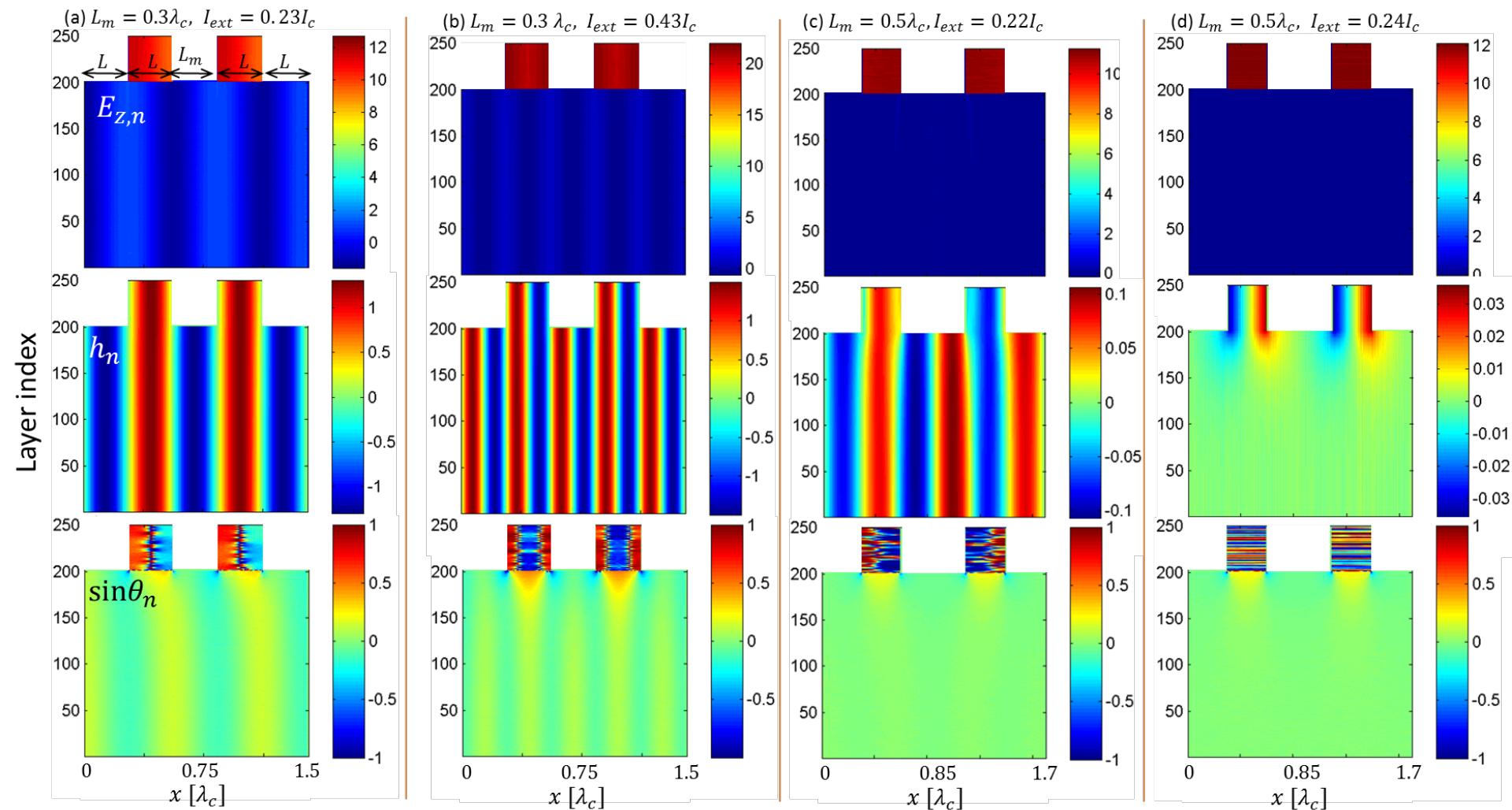


Fig. 3, Snapshots of the electric field (first row), magnetic field (second row) and supercurrent (third row) in different mesas fabricated atop of a basal crystal.