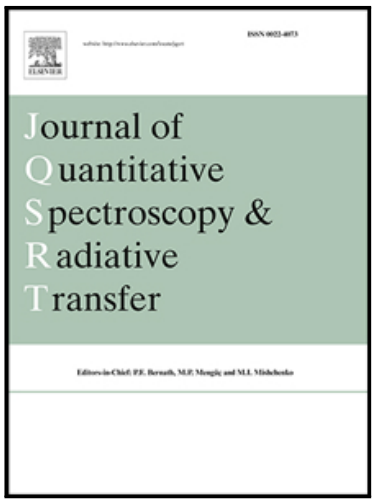

Spectroscopic and structural investigation for the ground and excited states of $CaNa^+$ molecular ion

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Highlights

- Electronic energies and dipole moments for the ion CaNa+ are theoretically investigated.
- Spectroscopic parameters are derived from potential energy curves.
- Vibrational level spacings for selected states are drawn and analyzed.
- Numerous avoided crossings are detected in PECs and its reflection in PDM and TDM functions is discussed.