

## Study of electron cyclotron wave-plasma coupling by dual-polarizer

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**Abstract:** Electron cyclotron heating (ECH) is an attractive auxiliary heating method for toroidal magnetic confinement devices. The heating and current drive efficiencies depend on the wave coupling mode in plasma, so dual-polarizer to realize the required polarization is necessary for efficient plasma heating and current drive. Dual-polarizer has been used to control the wave polarization for ECRH system. This paper mainly shows the electron cyclotron wave-plasma efficient coupling by dual-polarizer.