

Fast-ion transport study at TCV using FIDA spectroscopy and the TRANSP code



- Successful experiment with 1 MW of NBI heating power
- Low electron densities ($1.6 \times 10^{19}/\text{m}^3$)
- High electron temperatures (3-5 keV)
- Observation of clear Fast-Ion D-Alpha (FIDA) signals
- FIDA data in agreement with synthetic spectra (TRANSP + FIDASIM) when considering anomalous fast-ion transport or strong charge exchange losses
- Neutral particle analyzers and passive FIDA radiation suggest large neutral densities

