

Plasma heating in the ion cyclotron range of frequencies in DIII-D

R.I. Pinsky

General Atomics, P.O. Box 85608, San Diego, California 92186-5608

Contact Author: R.I. Pinsky, General Atomics, P.O. Box 85608, San Diego, CA 92186-5608, Phone: (858) 455-2074, email: Pinsky@fusion.gat.com

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Abstract. Experiments on plasma heating with waves in the ion cyclotron range of frequencies (ICRF) that have been performed on DIII-D tokamak are reviewed. High power experiments ($P_{rf} \gtrsim 1$ MW) have been performed using the ion Bernstein wave (IBW) (1988-1990), 32 MHz fast waves (1990-1991), 60 MHz fast waves (1991-1999) and with higher frequency fast waves up to 120 MHz (1994-present). Efficient electron heating of the core plasma has been obtained in all of these regimes, with the exception of the IBW experiments.