

Abstract Submitted
for the DPP10 Meeting of
The American Physical Society

Coupling of Lower Hybrid waves with four-way-splitter antenna on Alcator C-Mod¹ ORSO MENEGHINI, SYUNICHI SHIRAIWA, DAVID JOHNSON, IAN FAUST, ATMA KANOJIA, RONALD PARKER, DAVID TERRY, RUI VIEIRA, GREG WALLACE, MIT-PSFC, RANDY WILSON, PPPL, STEVE WUKITCH, MIT-PSFC — We present the first experimental wave coupling results obtained with the new Lower Hybrid (LH) launcher of Alcator C-Mod which is based on the 4-way-splitter concept. A diagnostic based on the microwave probes concept has been installed to verify the LH2 design and study the physics of LH wave coupling. A total of 32 dedicated probes measure the forward and reflected power in a carefully selected set of the active and passive waveguides of the LH2 grill. Validity of LH coupling theory at low power (linear regime) is assessed and experimental observations of coupling at high power (nonlinear regime) are presented.

¹Work supported by USDOE DE-FC02-99ER54512 and DE-AC02-76CH03073

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Date submitted: 02 Sep 2010

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