

Abstract Submitted  
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**Nearly Transit-time Limited Electromagnetically Induced Transparency in an Undergraduate Laboratory**<sup>1</sup> KEFENG JIANG, KEN DEROSE, HONG CAI, LINZHAO ZHUO, STONE OLIVER, SAMIR BALI, Miami University — We observe electromagnetically induced transparency in the D2 transitions of atomic Rubidium in a standard uncoated vapor cell with no buffer gas. Contrasts of up to 30% are obtained. A narrowest linewidth of 90 kHz is observed, which is about a factor 2 broader than the theoretically expected transit-time linewidth. We examine possible sources (e.g. stray magnetic field, laser misalignment, etc) that prevent us from attaining the theoretical limit and conclude that the probable cause appears to be Doppler broadening.

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