Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Thin film NMR T_1 measurement by MRFM using cyclic adiabatic inversion[1] SUNGMIN KWON, SEUNG-BO SAUN, SOONCHIL LEE, Korea Advanced Institute of Science and Technology, SOONHO WON, Korea Institute of Materials Science — We obtained the NMR spectrum and the spin lattice relaxation time (T_1) for thin film samples using Magnetic Resonance Force Microscopy (MRFM). The samples were Alq_3, which is widely used as an organic light emitting diode (OLED), thin films of 150 nm thick and a bulk crystal. T_1 was measured by using the cyclic adiabatic inversion method at a fixed frequency of 297 MHz and at 12 K. To confirm the reliability of our measurement technique we compared the result with that obtained by conventional NMR method. T_1 of thin film samples was measured and compared with that of the bulk sample.

[1]thin film, MRFM

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Date submitted: 09 Jan 2014 Electronic form version 1.4