

Abstract Submitted  
for the MAR05 Meeting of  
The American Physical Society

**Morphological and Magnetic Properties of Pulse Laser Deposited Barium Hexaferrite Thick Films for Application in Microwave Circulators**<sup>1</sup> YANKO KRANOV, TEJASVI PRAKASH, DAVID MCILROY, Department of Physics, University of Idaho, Moscow, Idaho 83844-0903 — Barium-hexaferrite thick films have been grown by Laser Ablation on MgO(111) and Si(111) substrates. For purpose of the experiment excimer laser was used with adjustable energy up to 1J. As a source of BaM a custom made high density BaM target was used. In order to investigate the crystallographic properties of the films XRD analysis was carried out. To characterize the magnetic properties, both MOKE and VSM were performed. SEM imaging provided the information for the overall topography of the films and their thickness as well.

<sup>1</sup>This work was supported by the ONR(N00014-02-1-0925), and Microelectronics Research and Communications Institute

Yanko Kranov  
Department of Physics, University of Idaho, Moscow, Idaho 83844-0903

Date submitted: 06 Dec 2004

Electronic form version 1.4