Surface Review and Letters: Vol. 21, No. 05

Print ISSN: 0218-625X

Volume 21, Issue 05, October 2014



MOSES E. EMETERE, Surf. Rev. Lett., 21, 1450075 (2014) [9 pages]

https://doi.org/10.1142/S0218625X14500759

# CHARACTERISTIC SIGNIFICANCE OF MAGNETIC RELAXATIONS ON COPPER OXIDE THIN FILM USING THE BLOCH NMR



In this paper, a theoretical model was described to analyze the magnetic relaxations of samples of copper oxide thin film cells. Experimentally, the copper oxide thin film was characterized at different oxidation temperatures between 150°C to 450°C. The introduction of the Bloch NMR equations was developed to determine the functionality of the individual samples. The magnetic relaxation characterization confirmed the degree of disordered in the copper oxide sample. This disorderliness of the copper oxide sample engendered a magnetic instability which gave rise to magnetic deflagration. Magnetic deflagration was found to be dependent on the magnetic re-orientation initiated by the RF pulse. A new law was proposed which is a modification of the Arrhenius law.

Keywords: Magnetic relaxation; voltage; Bloch NMR; magnetic deflagration

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