

Distribution of Electric Field Gradient at Aluminum Sites in Zeolite Loaded with Potassium

M. Igarashi

Department of Applied Physics, Gunma College of Technology, Maebashi 371-8530, Japan

Reprint requests to M. I.; E-mail: igarashi@nat.gunma-ct.ac.jp

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In the zeolite LTA, loaded with potassium, the temperature and field dependence of ^{27}Al NQR was observed. Symmetrical single shoulders are found on both sides of the central line. The shape and the shift of those shoulders show no dependence on both temperature and the strength of the external field. This evidences a first order electric quadrupolar shift, being the result of the distribution of the nuclear quadrupole coupling constant and the asymmetry parameter at ^{27}Al sites.

Key words: Zeolite; LTA; Potassium; ^{27}Al NQR; First Order Quadrupolar Shift; Electric Field Gradient; Distribution.