

Fine structure of infrared OH-stretching band in synthetic Ge-muscovite

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How many kinds of proton sites (= OH vectors) are there in the muscovite structure? In the Ge-muscovite, the OH stretching band can be resolved at least into 4 bands: centered at 3670.2, 3653.3, 3631.8, and 3614.1 cm⁻¹. The last broad band at 3614.1 (cm⁻¹) will be further divided into two bands. So that the broadly divided two OH bands in muscovite by Liang and Hawthorne (1998) can be further resolved into more than two bands respectively in Ge-muscovite.