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Molecular Crystals and Liquid Crystals

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Erratum: A. C. Shear constant of a smectic B liquid crystal

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Erratum: A. C. SHEAR CONSTANT OF A SMECTIC B LIQUID CRYSTAL

Molecular Crystals and Liquid Crystals, 82(6), Page 191

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is slightly first order, we can obviously relate this behavior to the coexistence range of the liquid and solid phases in this slightly impure system. At lower temperatures, we observe a continuous increase of C_{44} . The curvature of C_{44} close to T_c is a typical pretransitional effect. The same pretransitional effect has also been observed at ultrasonic frequencies 2

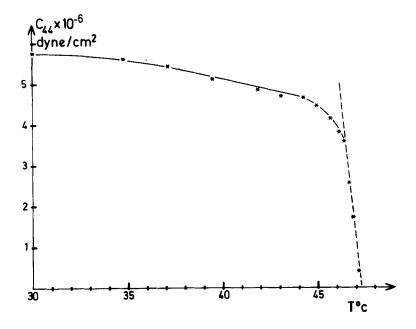


FIGURE 4: Real part of Z at 1.000 Hz versus temperature. The solid and dashed lines are just a guide for the eye.

In conclusion, we have measured the viscoelastic response of a smectic B liquid crystal submitted to a shear strain parallel to the smectic layers. Our essential observation is a logarithmic increase of the apparent elas-