Erratum: Orientation of alkyl chains and hindered rotation of carbonyl groups in the smectic-C^* phase of antiferroelectric liquid crystals studied by polarized Fourier transform infrared spectroscopy [Phys. Rev. E 51, 2166 (1995)]

Kyeong Hyeon Kim, Ken Ishikawa, Hideo Takezoe, and Atsuo Fukuda

PACS number(s): 61.30.Gd, 77.80.−e, 78.30.−j, 99.10.+g

During the final stages of the production process, three lines of text were inadvertently deleted from the second paragraph of the Introduction on p. 2166. This paragraph is correctly reproduced below:

For an investigation of the molecular conformation and hindered rotation, vibrational spectroscopy such as Fourier transform infrared (FTIR) and Raman scattering can be used as powerful tools. A particular advantage of using vibrational spectroscopy is the ability to obtain orientational information about selected groups if the transition moments are well defined; this can be determined by measuring the absorption of polarized incident radiation. Owing to the development of infrared (ir) spectrophotometric techniques [9–11], it becomes possible not only to obtain polarized ir spectra reliably but also to observe the reorientation dynamics of liquid crystals by time-resolved measurements [9–19]. The purpose of this paper is to report a set of polarized FTIR spectra in unwound, uniform Sm-C^* of antiferroelectric liquid crystals, which suggests an average alkyl chain orientation parallel to the long molecular axis and a hindered rotation of the carbonyl groups. The electric-field-induced reorientation dynamics were also investigated, though preliminarily, by an asynchronous time-resolved method [10].

1063-651X/95/52(2)/2120(1)/$06.00