

**Accessory Publication**

**Dynamics and Orientation of Parathion Dissolved in Discotic Nematic Lyomesophase**

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Stacked plot of spectra used to measure the values of  $T_1$ . The delays between the  $180^\circ$  and  $90^\circ$  pulses, in seconds, are: 3, 2.5, 2, 1.5, 1.2, 0.8, 0.5, 0.3, 0.2, 0.12, 0.08, 0.05, 0.035, 0.02, 0.01, and 0.0001.  $^2\text{H}$ -NMR quadrupole splittings of all deuteriated species were measured directly from the fully relaxed spectrum. The largest splitting corresponds to 1,1-dideuterodecanol, the intermediate splitting arises from parathion- $\text{d}_4$  and the smallest splitting is from DHO. Integrals of the right hand peaks were employed to obtain the values of  $T_1$ ; for DHO the complete signal was used. Only one splitting was resolved for parathion. The estimated errors in the splittings are  $\pm 1\text{ Hz}$  for DHO,  $\pm 5\text{ Hz}$  for parathion- $\text{d}_4$  and  $\pm 10\text{ Hz}$  for DeOH.

