**Hiraki and Kanoda Reply:** We reported <sup>13</sup>C NMR evidence of charge ordering in an organic conductor,  $(DI-DCNQI)_2Ag$ , with a quarter-filled band and proposed an ordering pattern of [1010] [1]. In the preceding Comment, Mazumdar *et al.* [2] pointed out that a different ordering pattern of [1100] is more likely to explain our results, based on their previous theoretical works [3]. In reply to the Comment, we discuss the three points which Mazumdar *et al.* raised as the favorable facts to the [1100] pattern.

The first comment is that the interchain exchange integral expected in the [1010] pattern should be too small to explain the observation of the antiferromagnetic ordering at 5.5 K. The interchain  $\pi$  phase shift of [1010] ordering in the simple rectangular lattice is the base of their suggestion of small interchain exchange integral, which may be reasonable for such a simple lattice. In the real material of (DI-DCNQI)<sub>2</sub>Ag, the DCNQI molecules stack with the molecular plane considerably inclined. Moreover, the direction of the inclination is different between adjacent stacks. Therefore, the interchain phase shift of the charge ordering is not so simple and an estimate of the exchange integral is not straightforward.

The second comment is on the nonmetallic behavior even above the charge ordering temperature of ~200 K. Although we think that the fluctuations of  $4k_F$  charge ordering may be responsible for this behavior, we have no further experimental evidence for this speculation. On the other hand, the [1100] scenario presented by Mazumdar *et al.* also seems to be inconsistent with the recent x-ray diffraction experiments, which show a  $4k_F$  superstructure below ~200 K instead of  $2k_F$  modulation [4].

The third comment is on the different temperature dependence of the two NMR lines. In the [1010] model, the 0 site feels no serious internal field due to cancellation of opposite directions of spins on both sides; at the 0 site the  $2k_F$  antiferromagnetic spin fluctuations and ordering can be filtered as in the oxygen sites in the CuO<sub>2</sub> planes in the cuprates. We considered that this is the reason for the different behaviors of the two lines; the inner line remains observable with the central position at origin while the

outer line becomes broadened away. In the [1100] model [2], the 0 site should have the moment according to the charge disproportionation. Assuming that the 0 site has 25% of one Bohr magneton according to the charge disproportionation, we can make a rough estimate of the linewidth with the use of the anisotropic part of the NMR hyperfine coupling tensor [5]. It yields about 13 000 ppm, which seems too large to explain the observed width of 1000 ppm. However, if there is some mechanism to contract the moment by a factor of greater than ten at the 0 site in the [1100] pattern, it could be consistent with the observation.

The possibility of the [1100] pattern based on the theoretical studies by Mazumdar *et al.* should be considered in an investigation of quasi-one-dimensional quarter-filled band systems. In the present system, however, we do not see clear evidence which is more favorable to the [1100] model than to the [1010] model, although it is still not conclusive. The NMR experiments of a single crystal may be quite informative for further research of this problem.

This work was supported in part by Grant-in-Aid for Scientific Research from the Ministry of Education, Science, Sports and Culture, Japan.

K. Hiraki\* and K. Kanoda
Department of Applied Physics
University of Tokyo
Hongo, Bunkyo-ku, Tokyo 113-8656, Japan

Received 14 December 1998 [S0031-9007(99)08616-0] PACS numbers: 71.45.Lr, 75.50.Ee, 76.60.-k

\*Present address: Department of Physics, Gakushuin University, Mejiro, Toshima-ku, Tokyo 171-8588, Japan.

- [1] K. Hiraki and K. Kanoda, Phys. Rev. Lett. **80**, 4737 (1998).
- [2] S. Mazumdar *et al.*, preceding Comment, Phys. Rev. Lett. **82**, 2411 (1999).
- [3] K. C. Ung et al., Phys. Rev. Lett. 73, 2603 (1994).
- [4] Y. Nogami (private communication).
- [5] A. Kawamoto, K. Miyagawa, and K. Kanoda, Phys. Rev. B 58, 1243 (1998).