Rao *et al.* Reply: Reich and Thomsen [1] performed polarized Raman experiments on *randomly aligned* multiwalled carbon nanotubes (MWNTs) and found the antisymmetric Raman scattering to be zero within their experimental error. This result is different from our previous paper [2] on *aligned* MWNTs, where we clearly observe the intensity for the YX polarized spectra (I_{YX}) to be larger than the intensity for the XY polarized spectra (I_{XY}). Our reported result is experimentally correct and reproducible for our aligned MWNTs sample. The seemingly contradictory results between their work [1] and ours [2] may be due to fundamental differences in the samples studied by the two groups.

Our experiments were carried out on a MWNT sample several microns in length, below 1 μm in thickness, where the MWNTs are predominantly aligned side by side in the same direction. Although MWNTs reach much larger diameters than single wall carbon nanotubes (SWNTs), it was already shown that resonance effects also occur in MWNTs [3], and arise from the small SWNTs near the core region. We interpret the difference between I_{YX} and I_{XY} observed in our experiment [2] to be due to the *antenna* (depolarization) effect discussed by Ajiki and Ando [4]. The *antenna* effect depends on the sample alignment relative to the electric field, and it has been shown to be strong for metallic nanotubes [5]. This effect causes a dichroism in an aligned sample, but no dichroism is expected in an unoriented sample. Reich and Thomsen's samples are randomly aligned MWNTs [1]. Significant experimental differences in polarization behavior are expected for these different geometries, since the Raman tensor is not symmetric when there is some linear dichroism in the medium. Therefore, one should not directly compare the polarization results in Ref. [1] with our measurements [2].

We reply to the four points raised by Reich and Thomsen [1]. Points (1) to (4) are from Ref. [1].

(1) "The inset of Fig. 3 shows the YY intensities ($\theta_m = 90°$) obtained by (i) rotating the polarization while keeping the sample fixed and (ii) rotating the sample while keeping the polarization fixed.": This text from the Reich and Thomsen paper [1] does not correctly describe our experimental setup. Both of the YY measurements shown in the inset of Fig. 3 in our paper [2] were obtained by rotating the sample, and the same is true for the XY and YX measurements. The analyzer was *always kept in the same position*, so that the scattered laser polarization direction is the same for all scattering configurations. While the XX vs YY and the XY vs YX traces were obtained by rotating the sample, the incident light polarization was changed to obtain the parallel or crossed scattering geometries. The same incident laser intensity was used for all spectra by measuring the laser power where the sample is located.

(2) "Instead, a factor of ≈1.7 was found suggesting a problem with the experimental setup.": Because of the small size of the sample (aligned bundle with thickness below 1 μm) and the large time to collect the spectra (many hours), measurement of the absolute intensity is delicate. However, since $I_{YX} = I_{XY}$ is expected for a normal Raman scattering process, we measured the intensities I_{YX} and I_{XY} many times and under different experimental conditions. The result $I_{YX} > I_{XY}$ was always reproducibly obtained for this aligned MWNT sample.

(3) "Rao *et al.*, however, state that E_{2g} modes are expected to contribute in YX but not in XY geometry. Similarly, they predict the intensities of the E_{1g} mode in YX and XY to be different.": We agree with Reich and Thomsen that these assumptions are incorrect. In a subsequent publication ("Polarized Raman Study of Single-Wall Semiconducting Carbon Nanotubes") [6] we have already corrected these points. The E_{2g} modes are expected to appear only in the YY polarization and the E_{1g} modes are expected to appear only in the YX and XY polarizations.

(4) "Another questionable experiment is shown in Fig. 2 (lower trace) of the Letter.": We measured the depolarization ratio (ρ) in disordered graphite and found $\rho \sim 0.75$, in agreement with the value cited by Reich and Thomsen. However, it should be emphasized that MWNTs exhibit a significantly different value for ρ (0.19) as compared with 0.75 or 1.0.

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