Supplemental Material for The Electron Dynamics of Shocked Polyethylene Crystal

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(Dated: February 24, 2012)
FIG. 1. The temperature-density plane of the principal Hugoniot for the eFF (black circles) and DFT/AM05 (open diamonds) methods.
FIG. 2. The coordination numbers for various densities along the eFF Hugoniot: (a) C-C, (b) C-H, (c) H-H. Each curve corresponds to a density (g/cm$^3$) point whose color is defined in the legend.
FIG. 3. 1.1 g/cc, 300 K
FIG. 4. 2.3 g/cc, 3100 K
FIG. 5. 2.6 g/cc, 7000 K
FIG. 6. 2.8 g/cc, 20000 K
FIG. 7. The (a) C-C, (b) H-C, and (c) H-H coordination number plots corresponding to the DFT/AM05 RDF curves in the preceding section. The values differ from the eFF curves because the data was extracted from normalized pair correlation data, unlike the eFF coordination number data.