

### **Description of Additional Supplementary Files**

**File name: Supplementary Data 1**

Description: Crystallographic Information Files (CIFs) for  $\epsilon$ -N<sub>2</sub> at 54 GPa as well as  $\zeta$ -N<sub>2</sub> at 63, 70 and 86 GPa.

**File name: Supplementary Data 2**

Description: Electron Localization Functions (ELFs) of  $\zeta$ -N<sub>2</sub> at 110, 130, 140 and 150 GPa.