

Supporting information:

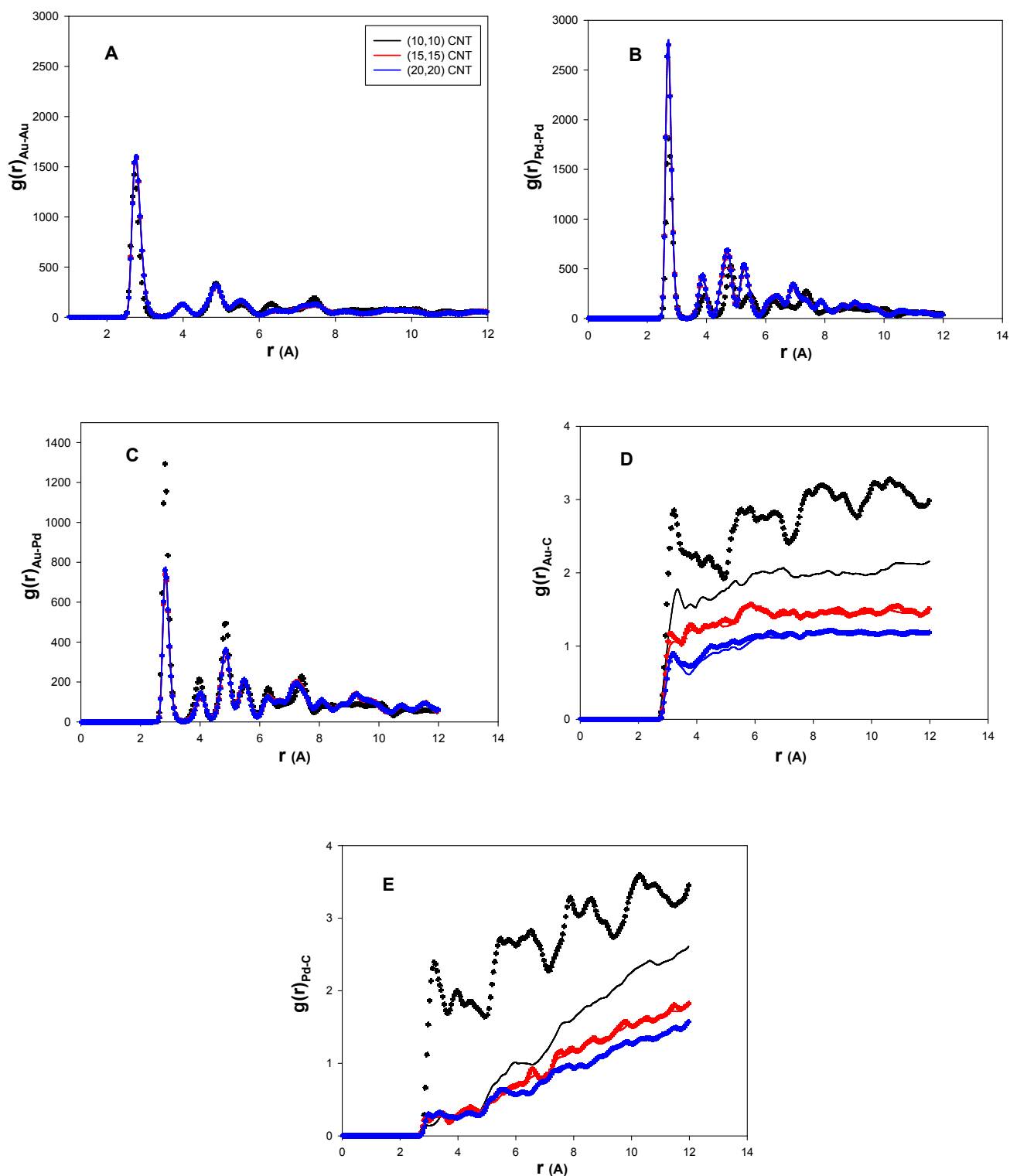


Fig. S1: The different RDFs on the (Au-Pd)₂₅₆ nanoalloy with the $x_{Au}=0.5$ supported on the CNT bundles with the different diameters in vacuum (solid lines) and in vacuum after removing the propene molecules (cross points).

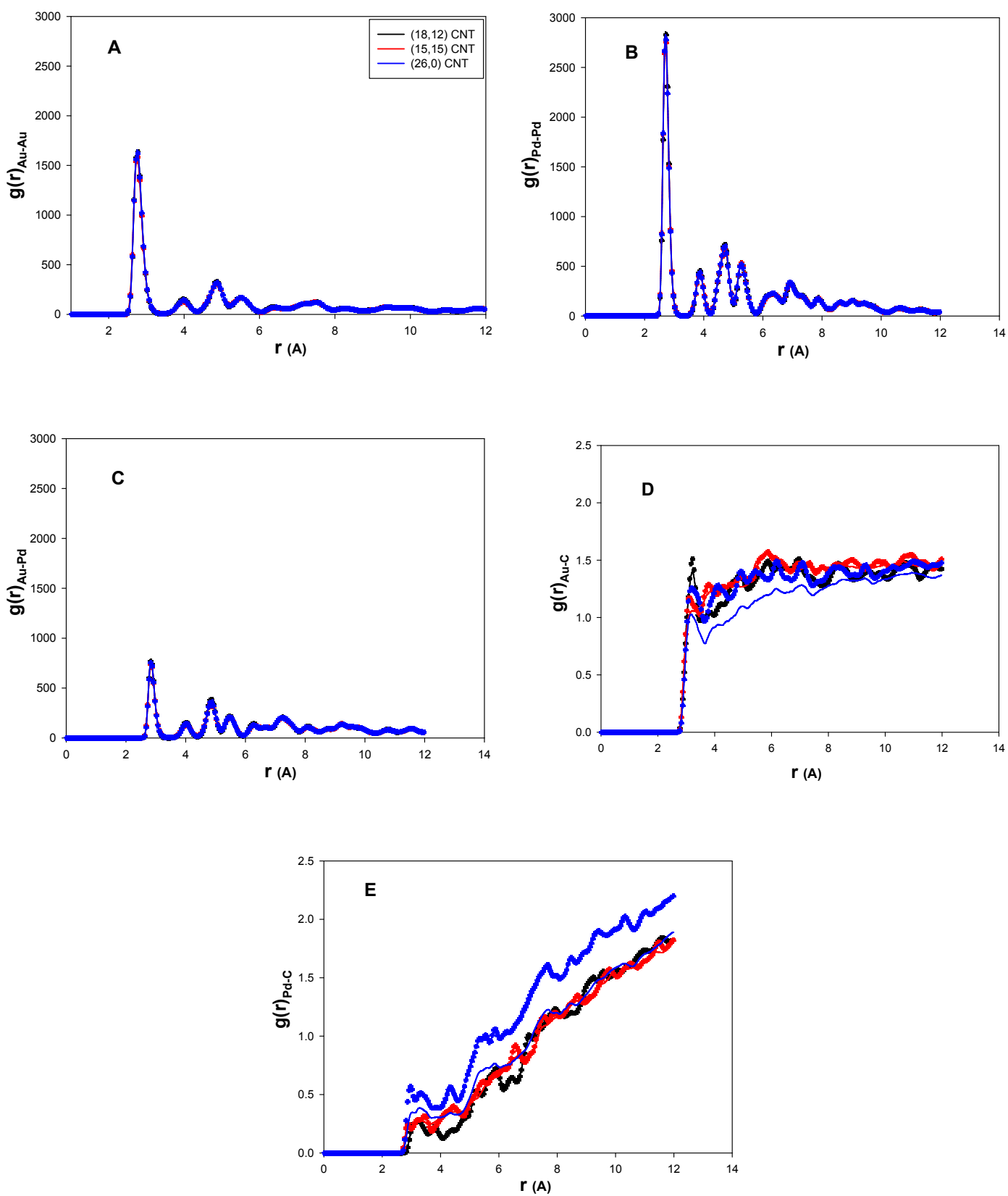


Fig. S2. The different RDFs for the nanoalloy with $x_{\text{Au}} = 0.5$ supported on the nanotube bundles with the different chiralities.

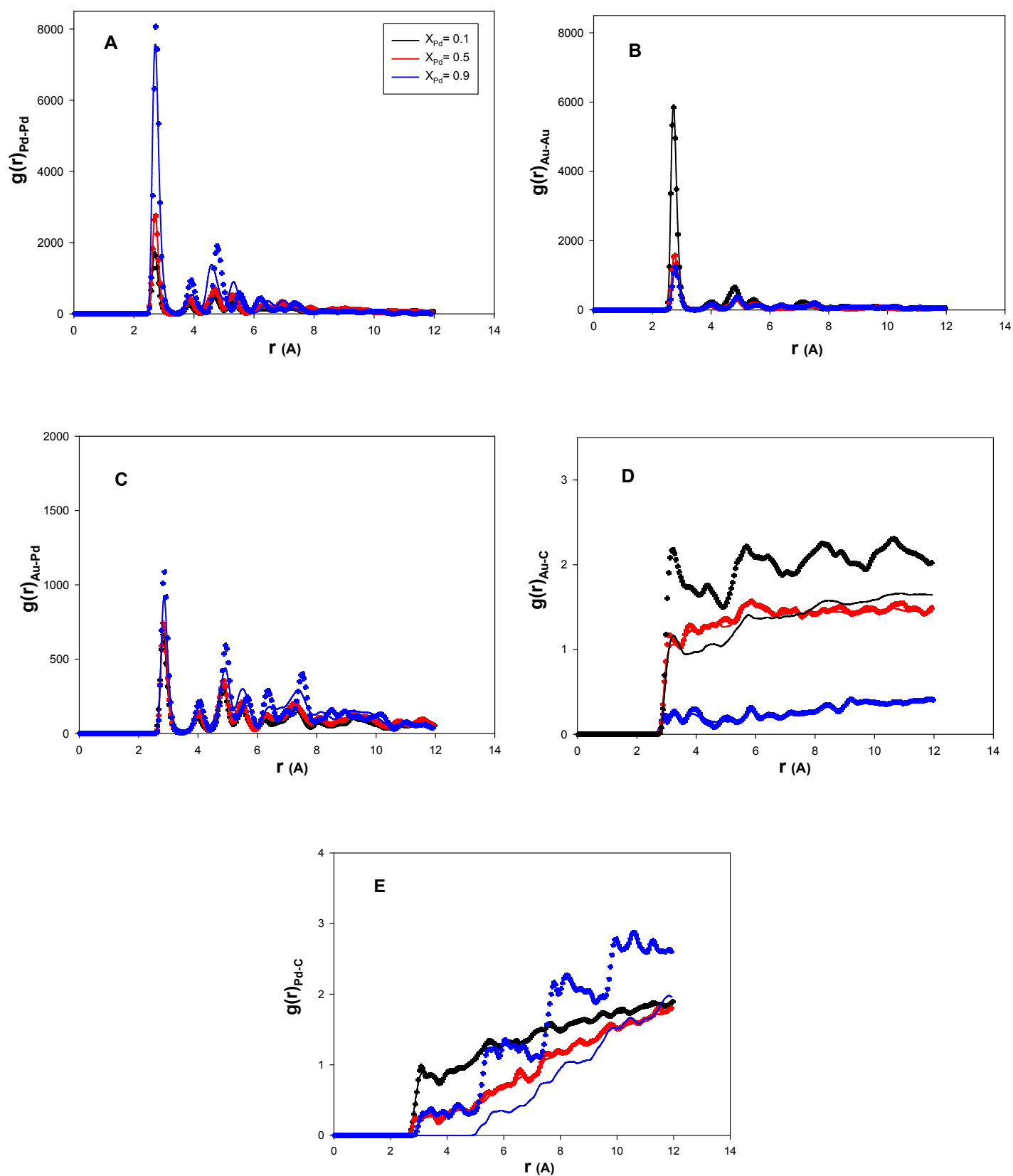


Fig. S3. The different RDFs for the supported nanoalloys with the different mole fractions.

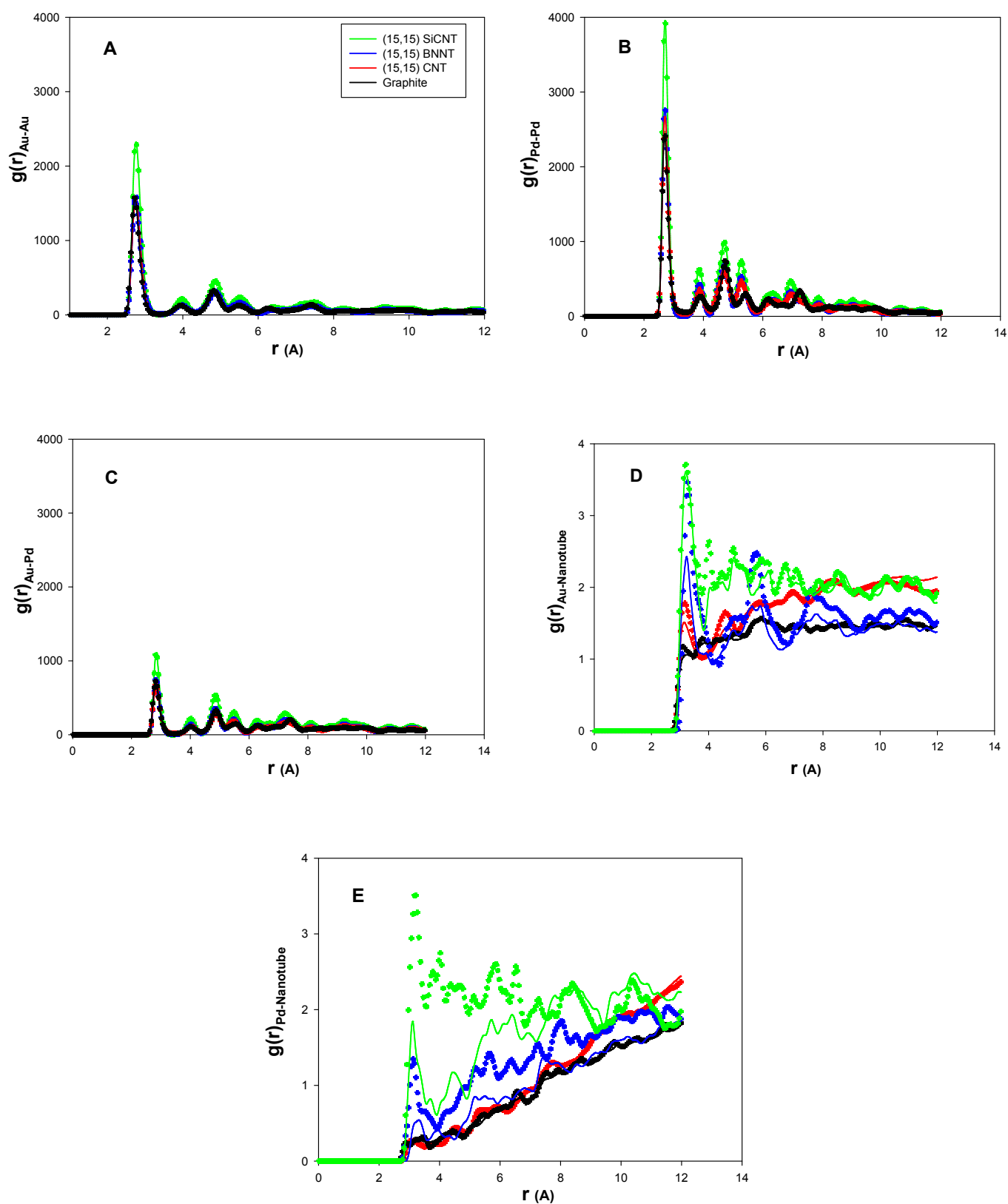


Fig. S4. The different RDFs for the $(\text{Pd-Au})_{256}$ nanoalloy deposited on the different supports.