

Supplementary material

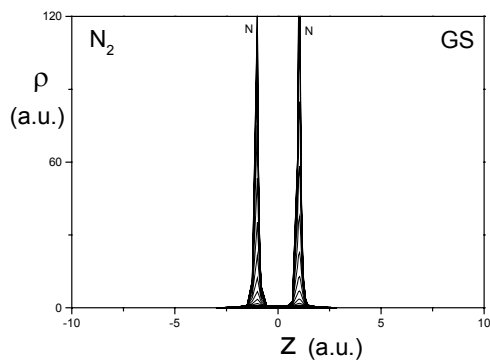


Figure 1a. The plot of the density of the N_2 molecule in its ground state

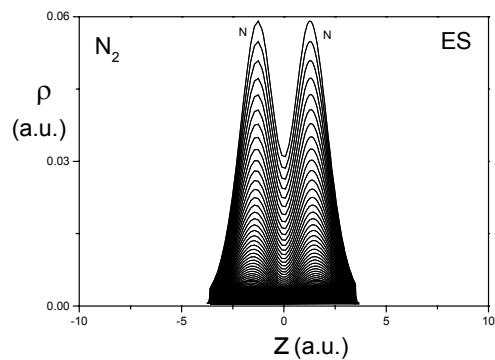


Figure 1a. The plot of the density of the N_2 molecule in its first excited state

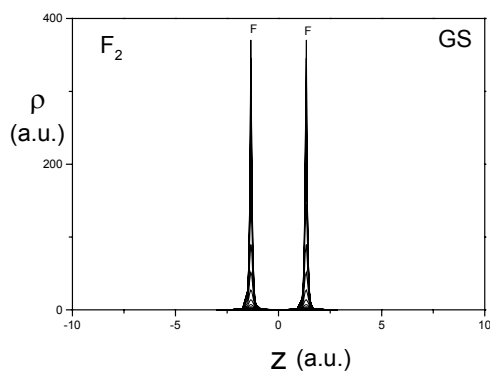


Figure 1b. The plot of the density of the F_2 molecule in its ground state

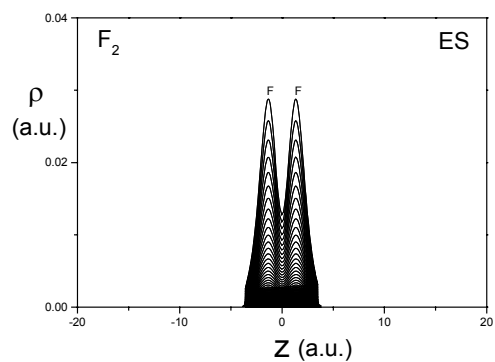


Figure 1b. The plot of the density of the F_2 molecule in its first excited state

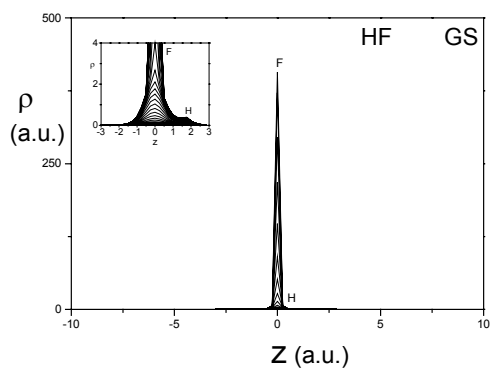


Figure 2a. The density profile of HF in its ground state

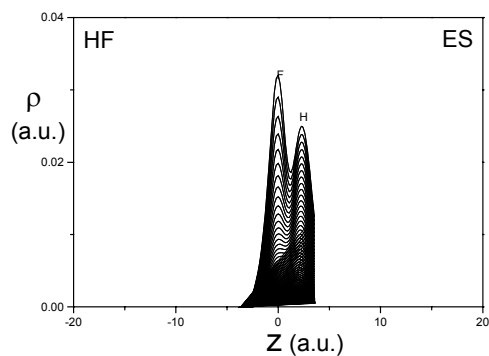


Figure 2a. The density profile of HF in its first excited state

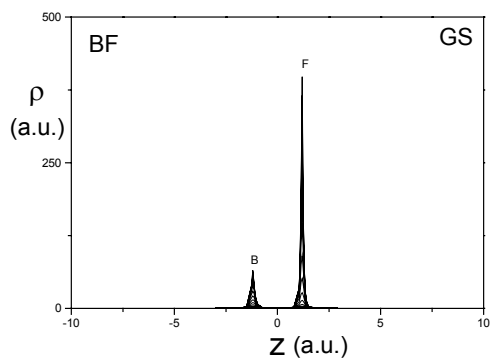


Figure 2b. The density profile of BF in its ground state

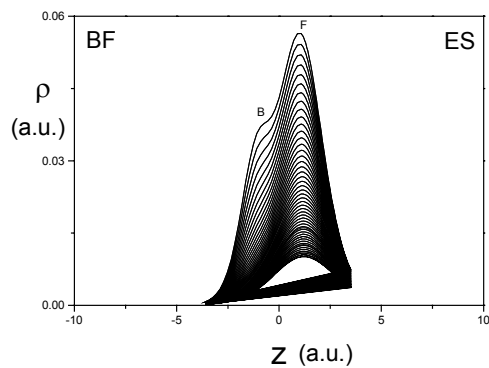


Figure 2b. The density profile of BF in its first excited state

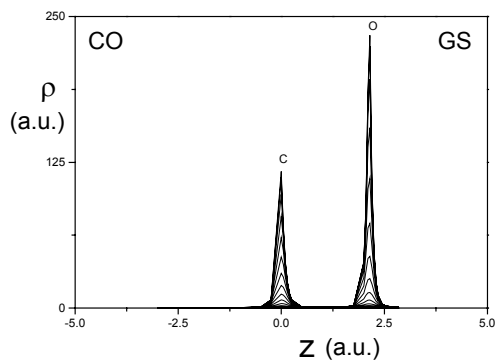


Figure 2c. The density profile of CO in its ground state

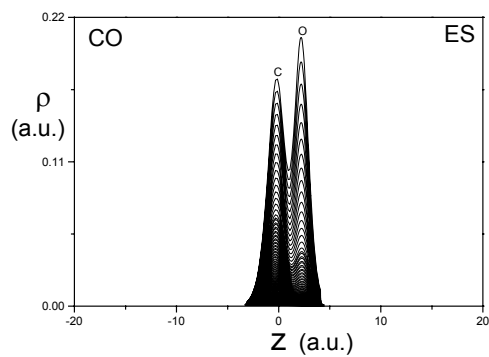


Figure 2c. The density profile of CO in its first excited state