

## E.1. Density Validation Plots

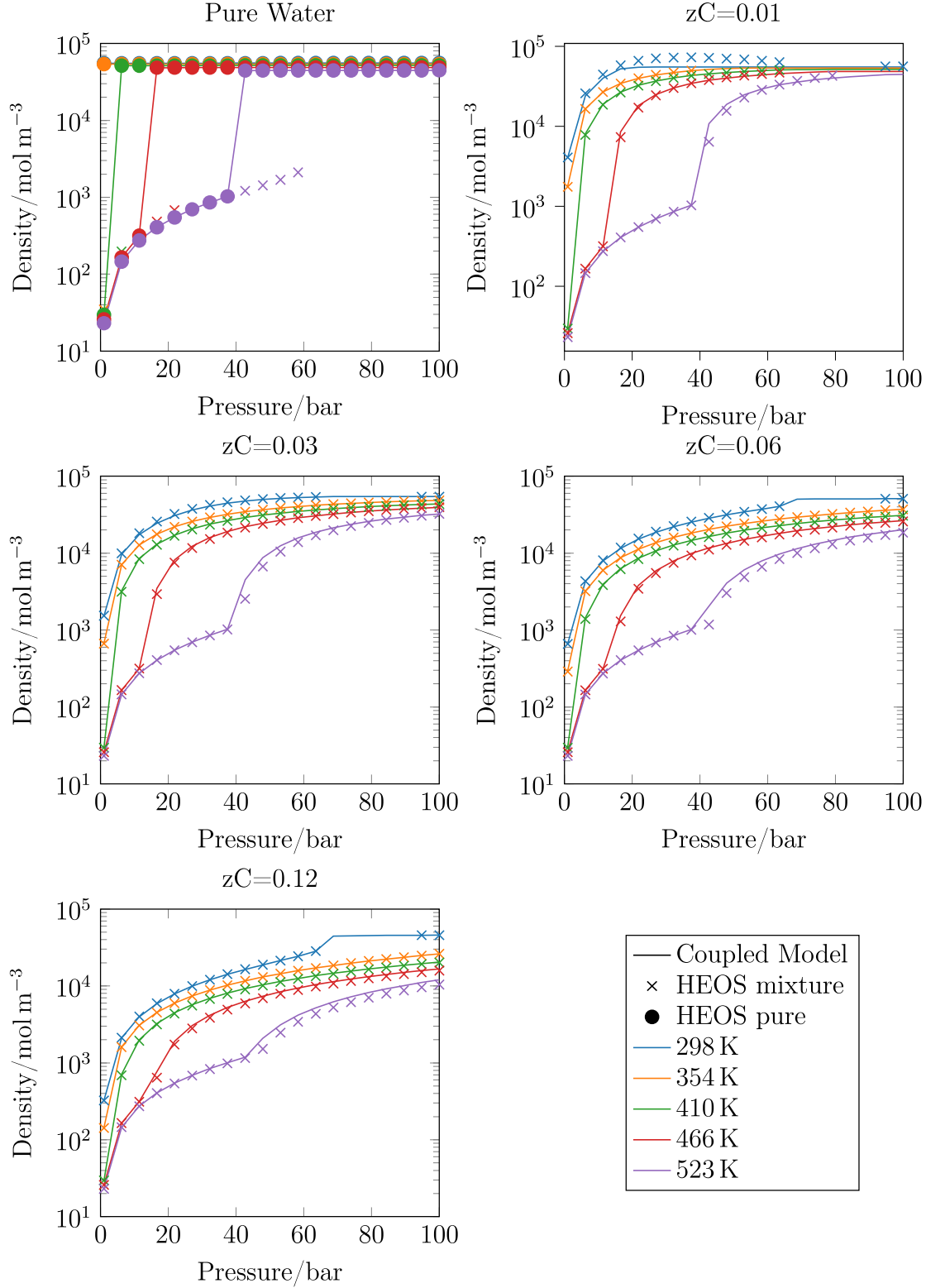


Figure E.1: The molar density, as a function of temperature, pressure and composition, as calculated using the HEOS mixture in *CoolProp* and the coupled model - part 1

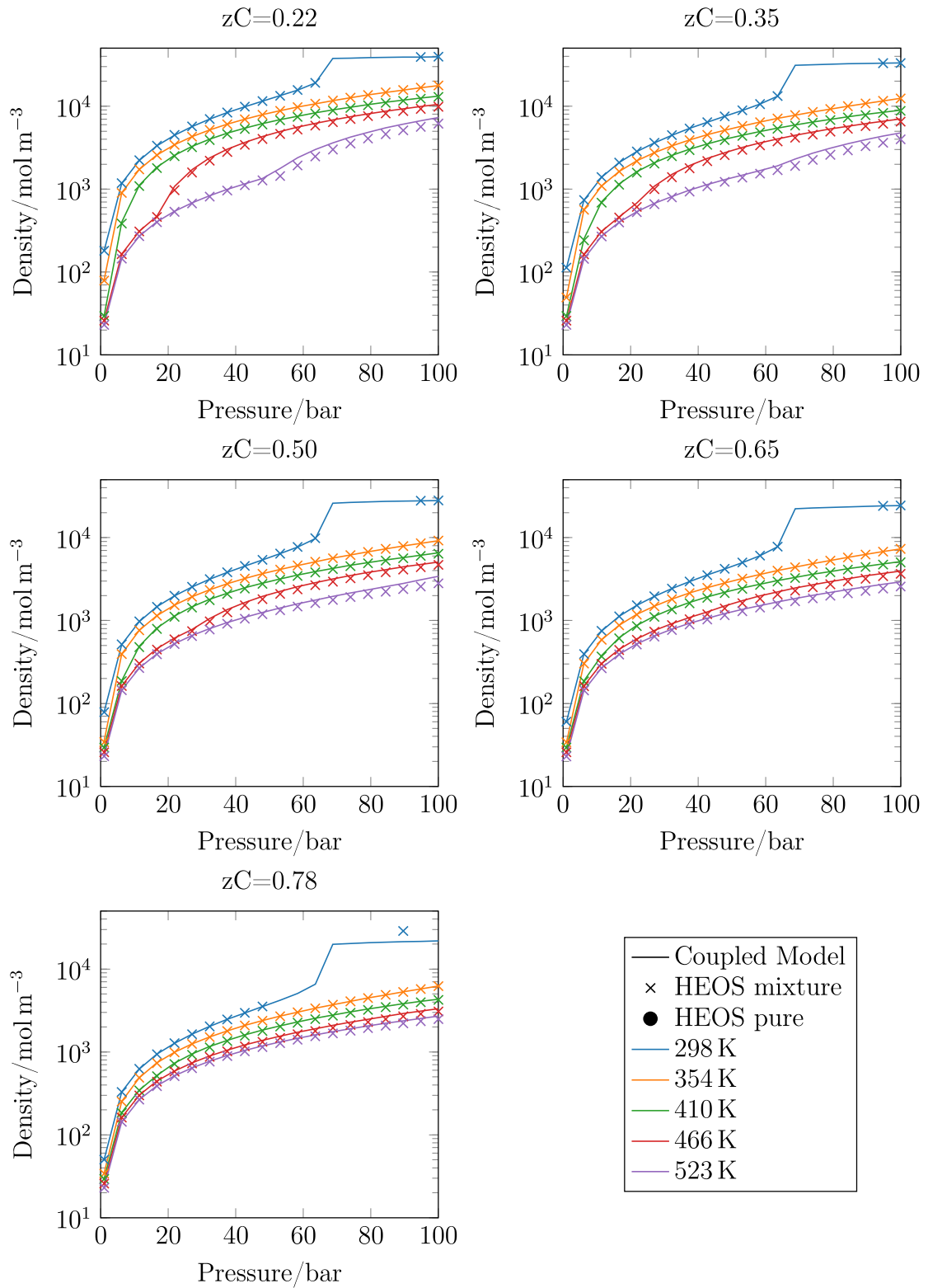


Figure E.2: The molar density, as a function of temperature, pressure and composition, as calculated using the HEOS mixture in *CoolProp* and the coupled model - part 2

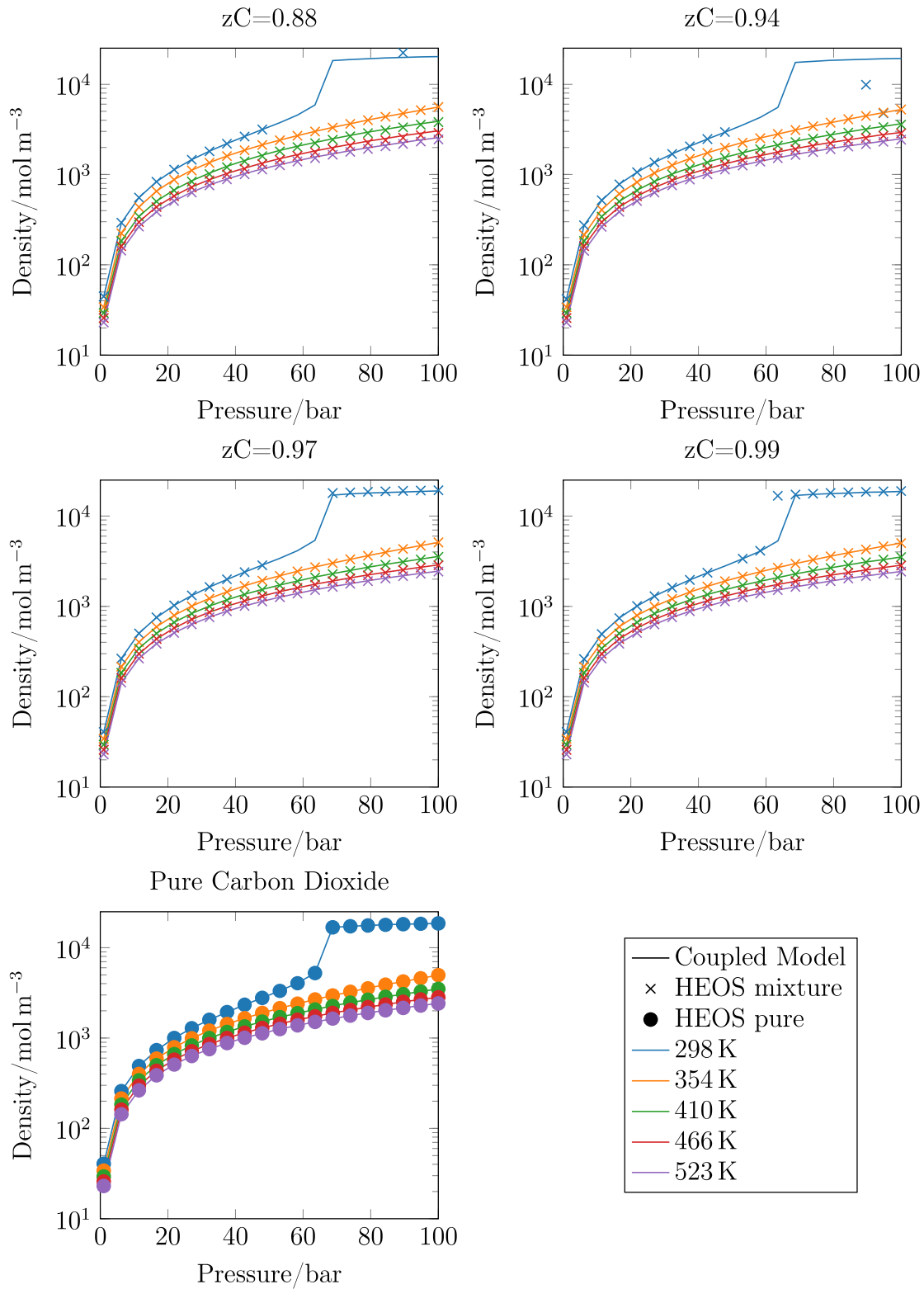


Figure E.3: The molar density, as a function of temperature, pressure and composition, as calculated using the HEOS mixture in *CoolProp* and the coupled model - part 3