

Van der Waals EOS

$$p = \frac{RT}{(v - b)} - \frac{a}{v^2}$$

$$a = \Omega_a \frac{(RT_c)^2}{p_c}$$

$$b = \Omega_b \frac{RT_c}{p_c}$$

$$\Omega_a = 27/64$$

$$\Omega_b = 1/8$$

$$Z_c = 3/8$$