

Soave-Redlich-Kwong EOS

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

$$a = \Omega_a \frac{(RT_c)^2}{p_c} \left[1 + m(\omega) \left(1 - \sqrt{T/T_c} \right) \right]^2$$

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

$$\Omega_a \approx 0.42748$$

$$\Omega_b \approx 0.08664$$

$$Z_c = 1/3$$

$$m(\omega) = 0.48 + 1.574\omega - 0.176\omega^2$$

ω = acentric factor