

根据CAS号，从数据库中找到对应物质的物性数据

以苯为例子，CAS = 71-43-2

- P_c , 临界压力, Pa

$$P_c = 4895000$$

- T_c , 临界温度, K

$$T_c = 562.0500$$

- V_c , 临界体积, $\frac{m^3}{kmol}$

$$V_c = 0.2560$$

- Z_c , 临界压缩因子, -

$$Z_c = 0.2680$$

- T_b , 常压沸点温度, K

$$T_b = 353.2400$$

- T_{triple} , 三相点温度, K

$$T_{\text{triple}} = 278.6800$$

- P_{triple} , 三相点压力, Pa

$$P_{\text{triple}} = 4.7642e+03$$

- M_w , 摩尔质量, $\frac{kg}{kmol}$

$$M_w = 78.1140$$

- ω , 偏心因子, -

$$\Omega = 0.2090$$

- H_{form}^m , 标准摩尔生成焓, $\frac{J}{\text{kmol}}$

Hform = 82880000

- G_{form}^m , 标准摩尔生成自由能, $\frac{J}{\text{kmol}}$

Gform = 129600000

- LiquidDensity, 液体的密度, $\frac{\text{kmol}}{m^3}$

- $\rho_L = \frac{A}{B \left(1 + \left(1 - \frac{T}{C} \right)^D \right)}, \quad T \in [T_{\text{min}}, T_{\text{max}}]$

