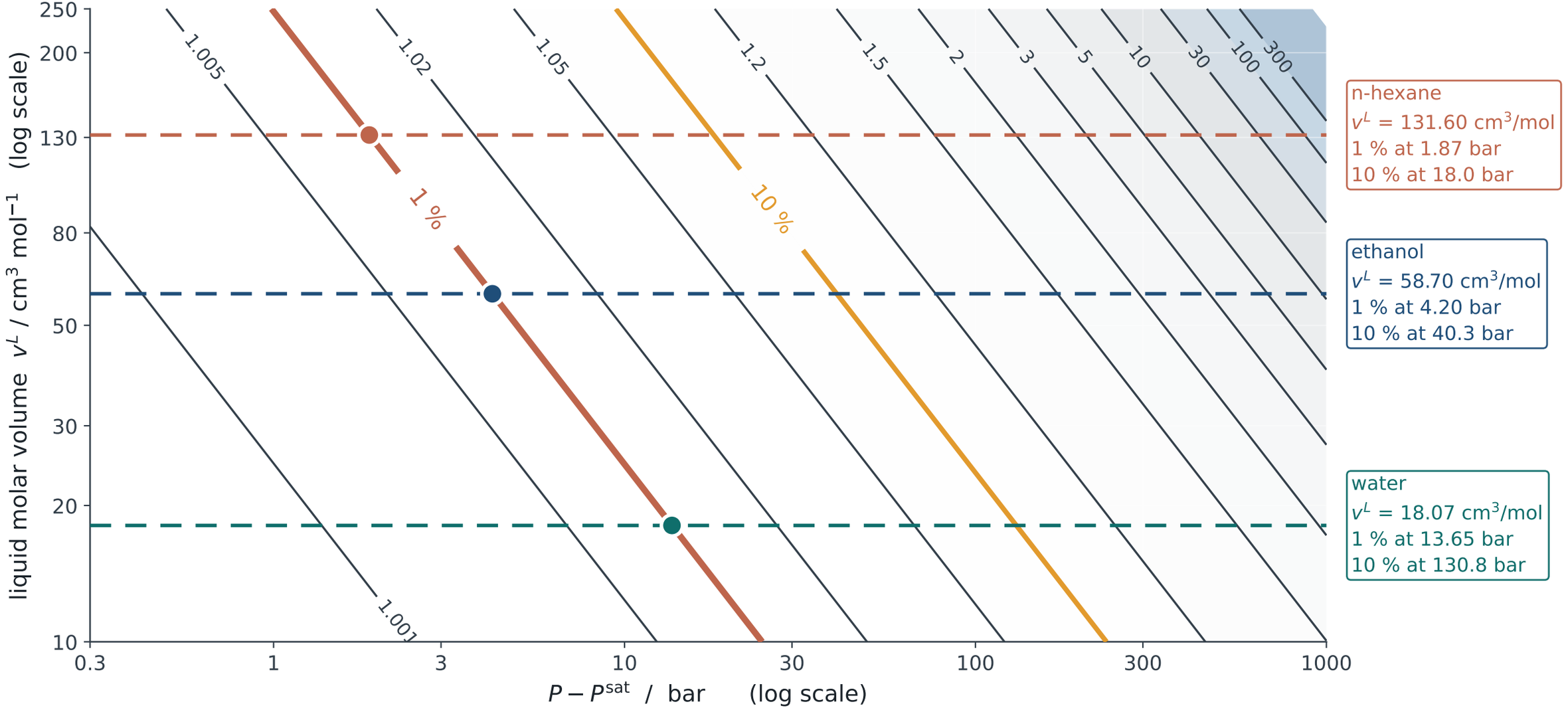
The Poynting factor $\exp[\,v^L(P-P^{\mathrm{sat}})/RT\,]$ at $T = 298.15$ K

below the heavy 1 % contour it changes a fugacity by less than the uncertainty in P^{sat} itself; above it, it stops being a correction at all



ASSUMED: $T = 298.15$ K. RT enters only as a scale factor, so every contour slides to the right in proportion to T.

ASSUMED: v^L constant, independent of pressure — that is what the Poynting factor is. A real liquid at 1000 bar is denser, so the true $\int v^L\,\mathrm{d}P$ is smaller than the exponential drawn here. v^L values are `vlekit.data.LIBRARY`, one number per component with no temperature attached to it.

The contours are exactly straight because $v^L(P-P^{\mathrm{sat}})$ is constant along each one; the marked pressures follow from $P - P^{\mathrm{sat}} = RT\ln(1.01)/v^L$ and nothing else.

$P^{\mathrm{sat}}(298.15\ \mathrm{K})$ from the library Antoine constants is 3.19 kPa for water, 7.90 kPa for ethanol, 20.20 kPa for n-hexane — all far below 1 bar, so here $P - P^{\mathrm{sat}}$ and P are the same number.