$$x_{\mathrm{H2dry}} = \frac{29.3 \cdot \left(0.034 - 0.012 \cdot 0.851\right)}{3.5 \cdot \left(\frac{25.2}{1000} - \frac{0.371}{1000} \cdot 0.851\right)} = 8.5 \mu mol/mol$$