High pressure vapor-liquid equilibria for CO$_2$ + $p$-cymene binary system at temperatures from 313.15 to 353.15 K

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The $p$-cymene concentration in the ethanol solution was calculated from the gas chromatograph peak areas of $p$-cymene in the solution and external standard. And the general expression is shown below:

$$c_i = c_0 \cdot \frac{A_i}{A_0}$$

(eq.01)

where $c_i$ and $c_0$ are the $p$-cymene mass fractions of sample and standard sample, respectively. $A_i$ and $A_0$ denote peak areas of $p$-cymene in the sample and standard sample, respectively.