$$\mathrm{CH_4} = \left(\mathrm{CO_2} \times \frac{\mathrm{EmF_{CH4}}}{\mathrm{EmF}} \right) + CO_2 \times \frac{0.02}{0.98} \times \frac{16}{44} \times f_{CH4} \qquad \text{(Eq. Y-4)}$$