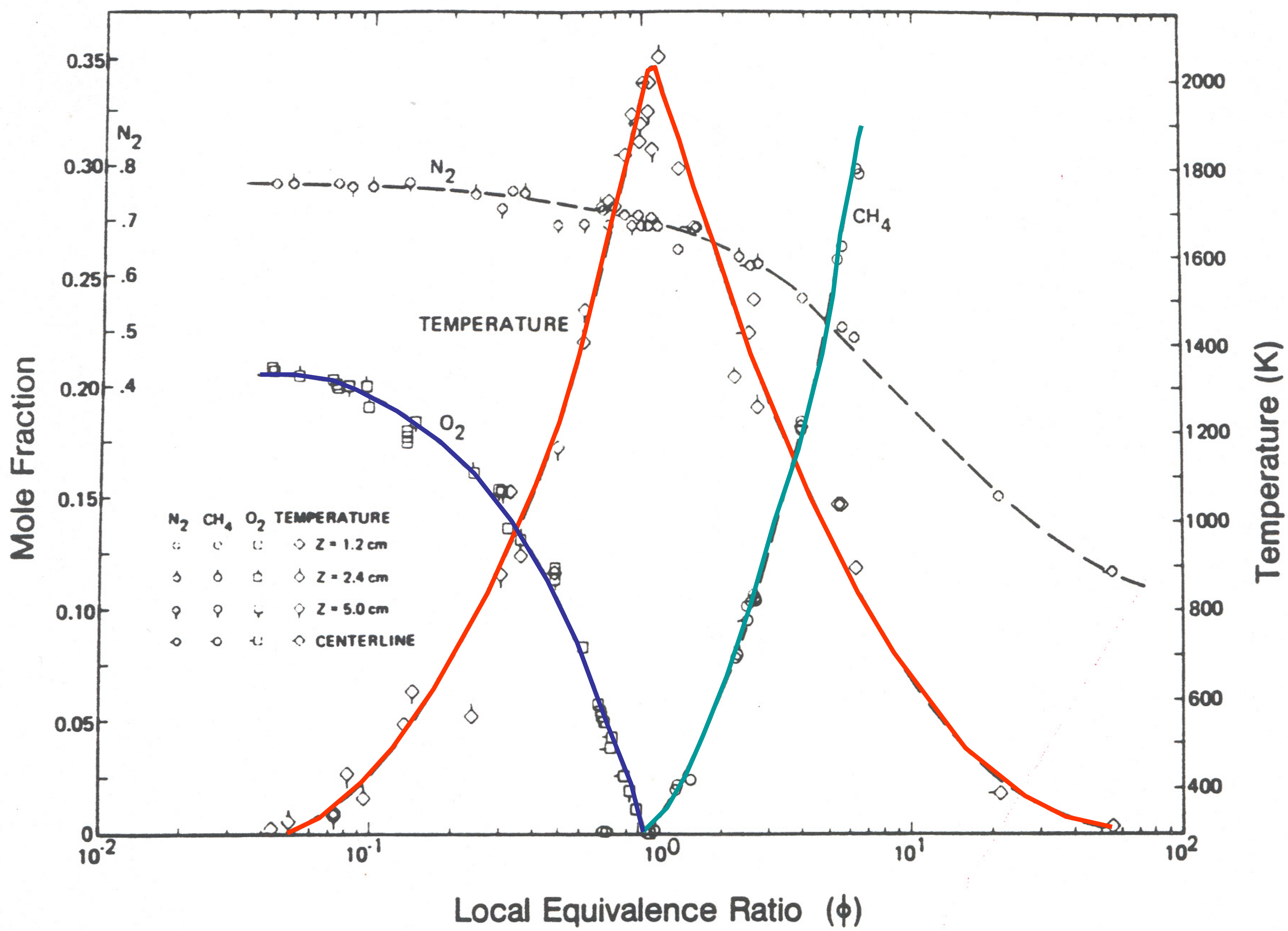


**Figure 11.4.** Measured temperature and reactant concentration as a function of the local equivalence ratio in a laminar methane diffusion flame. (Figure used with permission from Mitchell *et al.*, 1980.)

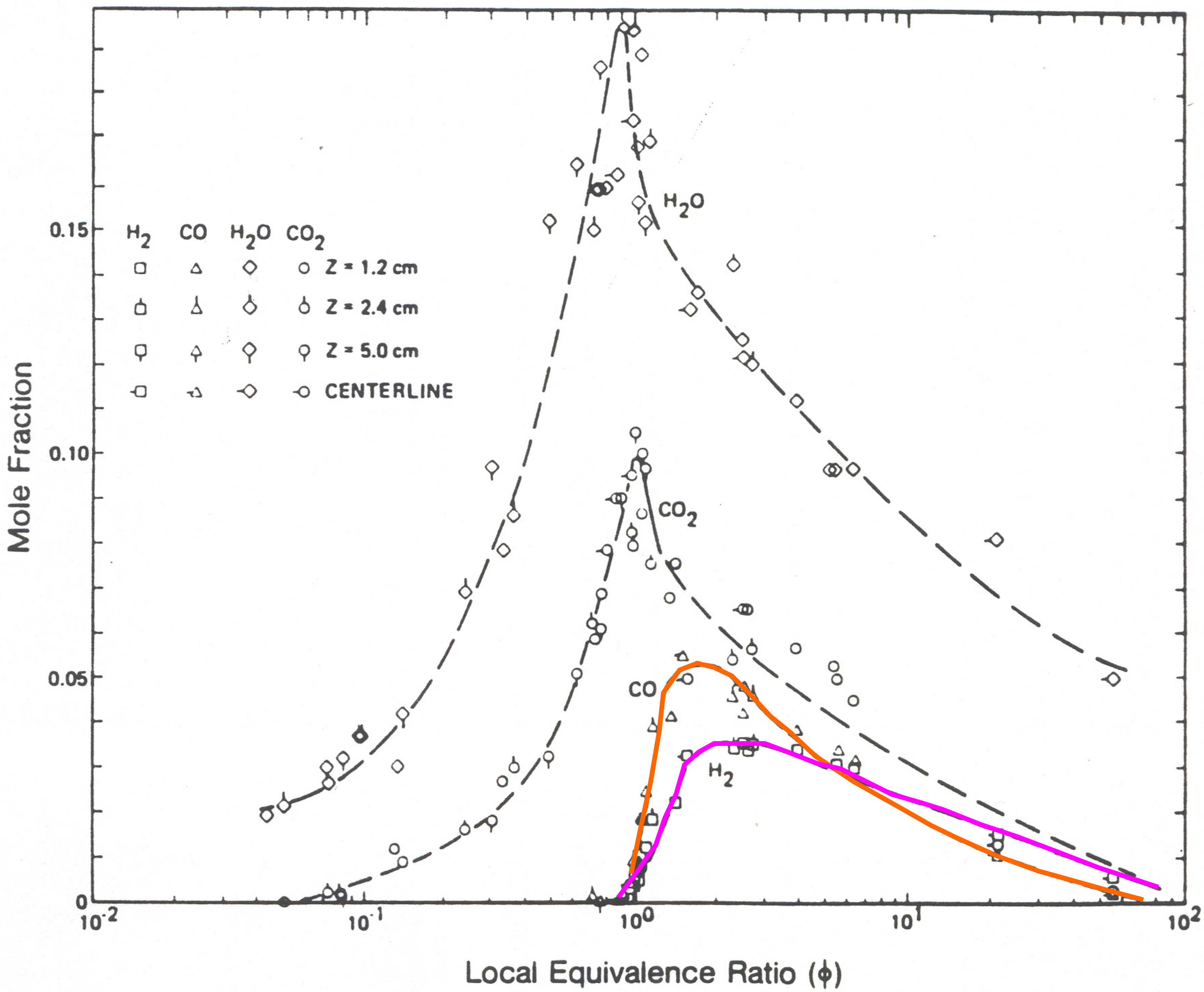


**Figure 11.5.** Measured major-product concentration as a function of the local-equivalence ratio in a laminar methane diffusion flame. (Figure used with permission from Mitchell *et al.*, 1980.)

## **Table 11.2.** Parameters for Clipped Gaussian Probability Density Function

Note mistake in book

$$P(f) = (2\pi G_f)^{-1/2} \exp(-Z_f^2/2)$$

$$\alpha = (2\pi)^{-1/2} \int_L^U \exp(-Z_f^2/2) dZ_f$$

| **Intermittency** | **U** | **L** | **$Z_f$** |
|---|---|---|---|
| $\alpha_p$ | $\infty$ | $(1-F)/G_f^{1/2}$ | $(f-F)/G_f^{1/2}$ |
| $\alpha_s$ | $-F/G^{1/2}$ | $-\infty$ | $(f-F)/G_f^{1/2}$ |

where $F$ and $G_f$ come from:

$$\bar{f} = \alpha_p + (2\pi G_f)^{-1/2} \int_{0+}^{1-} f \exp\left(\frac{-(f-F)^2}{2G_f}\right) df$$

$$g_f = \alpha_p - \bar{f}^2 + (2\pi G_f)^{-1/2} \int_{0+}^{1-} f^2 \exp\left(\frac{-(f-F)^2}{2G_f}\right) df$$