

Average Group average:

for G_i range $0.006 - 0.011 \frac{\text{kg}}{\text{s}}$

$$V_{i,1} \text{ exp} = [0.0185, 0.0211, 0.0222, 0.0253, 0.0243, \\ 0.0224, 0.0203, 0.0215]$$

$$\text{Avg } V_{i,1} = 0.0244 \frac{\text{kg}}{\text{s}}$$

$$\text{std } V_{i,1} = 0.0067 \frac{\text{kg}}{\text{s}}$$

$$\text{std \% } V_{i,1} \Rightarrow \frac{0.0067}{0.0244} \cdot 100 = 27.6 \%$$

Model $V_{i,1}$ m

$$a = 20.757, 35, b = 0.2, c = 10.647,$$

$$d = 0.0097, e = 2.243, G_1 = 0.17, G_2 = 0.095$$

$$= 0.0169 = 1 / \left[\frac{a}{G_1^b} + c + \frac{d}{G_2^e} \right]$$

$$= \left[\frac{J}{\text{in}^2 \cdot \text{s} \cdot \text{K}} \right]$$

Model $V_{i,2}$

$$a_1 = 0.449, b_1 = 0.74, c_1 = 2.4, d_1 = 0.24,$$

$$h_1 = 0.176, \& V_{i,1} = 0.0169, G_3 = 0.037$$

$$V_{i,2 \text{ model}} = 1 / \left[\frac{a_1}{V_{i,1}^{b_1}} + c_1 + \frac{d_1}{G_3^{e_1}} \right]$$

$$= 0.0826 \left[\frac{J}{\text{in}^2 \cdot \text{s} \cdot \text{K}} \right]$$

$$\% \text{ diff } : V_{i,1} \Rightarrow \frac{(V_{i,1} - V_{i,1 \text{ model}})}{V_{i,1 \text{ model}}} \cdot 100 = 16.8\%$$

$$V_{i,2} \Rightarrow \frac{|V_{i,2} - V_{i,2 \text{ model}}|}{V_{i,2 \text{ model}}} \cdot 100 = 31.1\%$$