

### ERRATA

T. R. GALLOWAY and B. H. SAGE, Thermal and material transfer in turbulent gas streams—a method of prediction for spheres, *Int. J. Heat Mass Transfer* 7, 283-291 (1964).

INADVERTENTLY some of the columns in Tables 2 and 3 of the basic manuscript were transposed. Furthermore, additional investigations reveal new values for  $A_2$ ,  $B$ , and  $C$  for material transport. The revised Tables 2 and 3 are presented herewith. The coefficients for equations 17, 18, and 19 should follow new Table 3.

Table 2. Coefficients for equations†

Description of sphere	Number of data points		Coefficients			Average deviation§ (per cent)	Standard error of estimate   (per cent)
	used	rejected‡	A	B	C		
Thermal and simultaneous thermal and material transport							
0.5 in porous sphere	87	8	0.530	-0.0321	-0.844	-1.30	6.8
1.0 in porous sphere	20	1	0.603	0.0349	0.384	-1.30	3.2
0.5 in silver sphere	36	4	0.453	0.0210	0.567	0.02	4.0
1.0 in silver sphere	14	0	0.448	0.0405	0.293	3.32	4.1
4.0 in copper sphere ¶	28	2	0.727	0.0001	194	-1.35	11.7
Material transport							
0.5 in porous sphere	86	9	0.717	0.0345	0.348	0.80	3.7

† Coefficients for equations as follows:

$$(Nu_i^* - 2)/Re_\infty^{\frac{1}{2}} \quad \text{or} \quad (Sh_i^* - 2)/Re_\infty^{\frac{1}{2}} = A + B\alpha_i(\alpha_i + C)Re_\infty^{\frac{1}{2}}$$

Data based on measurements in air streams only, where  $Pr_\infty^{\frac{1}{2}} = 0.8926$  and  $Sc_\infty^{\frac{1}{2}} = 1.281$ .

‡ Statistically rejected when deviation exceeds  $x(\sigma)$  where  $x = 2$ .

§ Average deviation defined by:

$$s = 100 \left\{ \left[ \sum_1^N (Nu_{ie}^* - Nu_{ic}^*) / N \right] \right\}$$

or

$$s = 100 \left\{ \left[ \sum_1^N (Sh_{ie}^* - Sh_{ic}^*) / N \right] \right\}$$

|| Standard error of estimate defined by:

$$\sigma = 100 \left\{ \sum_1^N [(Nu_{ie}^* - Nu_{ic}^*) / Nu_{ie}^*]^2 / (N - 1) \right\}^{\frac{1}{2}}$$

or

$$\sigma = 100 \left\{ \sum_1^N [(Sh_{ie}^* - Sh_{ic}^*) / Sh_{ie}^*]^2 / (N - 1) \right\}^{\frac{1}{2}}$$

¶ Wadsworth [18].

Table 3. Recommended coefficients for equations†

Nature of transport	Number of data points		Coefficients				Average deviation§ (per cent)	Standard error of estimate   (per cent)
	used	rejected‡	$A_1$	$A_2$	$B$	$C$		
Thermal, $Nu_i^*$	121	24	0.538	0.181	0.0405	0.328	-4.7	14.6
Simultaneous thermal and material, $Nu_i^*$	140	11	0.562	0.181	0.0500	0.0672	-2.8	4.2
Material, $Sh_i^*$	132	13	0.439	0.126	0.0390	0.300	2.1	6.6

† Coefficients for equations as follows:

$$Nu_i^* = 2.000 + (A_1 + A_2 d^{\frac{1}{2}}) Re_{\infty}^{\frac{1}{2}} Pr_{\infty}^{\frac{1}{4}} + B \alpha_i (\alpha_i + C) Re_{\infty} Pr_{\infty}^{\frac{1}{4}}$$

or

$$Sh_i^* = 2.000 + (A_1 + A_2 d^{\frac{1}{2}}) Re_{\infty}^{\frac{1}{2}} Sc_{\infty}^{\frac{1}{4}} + B \alpha_i (\alpha_i + C) Re_{\infty} Sc_{\infty}^{\frac{1}{4}}$$

‡ Statistically rejected when deviation exceeds  $x(\sigma)$  where  $x = 2$ .

§ Average deviation defined by:

$$s = 100 \left[ \left\{ \sum_1^N (Nu_{ie}^* - Nu_{ie}^*) \right\} / N \right]$$

or

$$s = 100 \left[ \left\{ \sum_1^N (Sh_{ie}^* - Sh_{ie}^*) \right\} / N \right].$$

|| Standard error of estimate defined by:

$$\sigma = 100 \left\{ \sum_1^N [(Nu_{ie}^* - Nu_{ie}^*) / Nu_{ie}^*]^2 / (N - 1) \right\}^{\frac{1}{2}}$$

or

$$\sigma = 100 \left\{ \sum_1^N [(Sh_{ie}^* - Sh_{ie}^*) / Sh_{ie}^*]^2 / (N - 1) \right\}^{\frac{1}{2}}$$