Erratum to: The effect of Knudsen layers on rarefied cylindrical Couette gas flows

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Erratum to:
The effect of Knudsen layers on rarefied cylindrical Couette gas flows (Microfluid Nanofluid (2013) 14:31–43)

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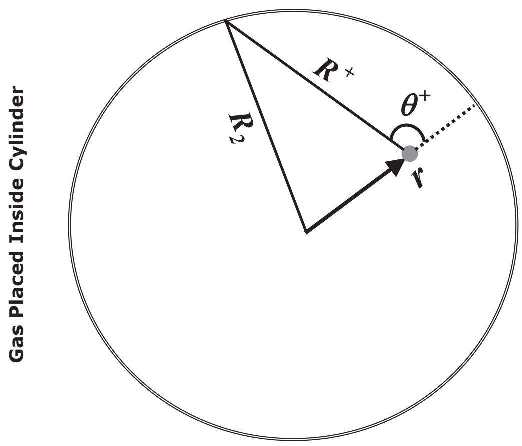

Figure 1: New Figure 1b

Changes to manuscript number: MFNF 120302

Correction 1) Change the text immediately after Equation (8) from

where $p(r)$ describes the probability a molecule travels a distance r with experiencing a collision.

to the following:

where $p(r)$ describes the probability a molecule will experience a collision while travelling a distance r.

Correction 2) Replace the existing Fig. (1b) with the new Figure shown above.

Correction 3) Modify Eq. (19) to the following:

$$R_2^2 = r^2 + (R^+)^2 + 2rR^+\cos(\theta^+),$$

Correction 4) After Eq. (20), in the 2nd line, change the text from

Using quarter symmetry, it is sufficient to integrate θ^+ from 0 to $\pi/2$.

to the following:

Using half symmetry, it is sufficient to integrate θ^+ from 0 to π.

Correction 5) Modify Eq. (21) to the following:

$$\lambda_{\text{eff(conc)}} = \lambda \left[1 - \frac{1}{\pi} \int_0^{\pi} \left(1 + \frac{R^+(r,\theta^+)}{a} \right)^{(1-n)} d\theta^+ \right],$$

Correction 6) Modify Eq. (22) to the following:

$$\beta_{(\text{i})} = \frac{\lambda_{\text{eff(conc)}}}{\lambda} = 1 - \frac{1}{\pi} \int_0^{\pi} \left(1 + \frac{R^+(r,\theta^+)}{a} \right)^{(1-n)} d\theta^+,$$

Correction 7) Section 2.3, Line No. 10: change the term $[1 - (\theta_u^-/\pi)(1 + r/R_2)]$ to the following:
$[1 - (\theta_u^-/\pi)]$

Correction 8) Replace the existing Eq. (23):

$$\lambda_{\text{eff}} = \lambda_{\text{eff(conv)}} \left(\frac{\theta_u^-}{\pi} \right) + \lambda_{\text{eff(conc)}} \left[1 - \left(\frac{\theta_u^-}{\pi} \right) \left(1 + \frac{r}{R_2} \right) \right],$$

with the following:

$$\lambda_{\text{eff}} = \lambda_{\text{eff(conv)}} \left(\frac{\theta_u^-}{\pi} \right) + \lambda_{\text{eff(conc)}} \left[1 - \left(\frac{\theta_u^-}{\pi} \right) \right],$$

Correction 9) Replace the existing Eq. (24):

$$\beta = \left(\frac{\theta_u^-}{\pi} \right) \left[1 - \frac{1}{\theta_u^-} \int_0^{\theta_u^-} \left(1 + \frac{R^-(r,\theta^-)}{a} \right)^{(1-n)} d\theta^- \right] + \left[1 - \left(\frac{\theta_u^-}{\pi} \right) \left(1 + \frac{r}{R_2} \right) \right] \left[1 - \frac{1}{\theta_u^+} \int_0^{\theta_u^+} \left(1 + \frac{R^+(r,\theta^+)}{a} \right)^{(1-n)} d\theta^+ \right],$$

with the following:

$$\beta = \left(\frac{\theta_u^-}{\pi} \right) \left[1 - \frac{1}{\theta_u^-} \int_0^{\theta_u^-} \left(1 + \frac{R^-(r,\theta^-)}{a} \right)^{(1-n)} d\theta^- \right] + \left[1 - \left(\frac{\theta_u^-}{\pi} \right) \right] \left[1 - \frac{1}{\theta_u^+} \int_0^{\theta_u^+} \left(1 + \frac{R^+(r,\theta^+)}{a} \right)^{(1-n)} d\theta^+ \right],$$

Correction 10) In section 3.1, line 4 in the first paragraph, correct *Fig. 1* to **Fig. 5**.