Closure to "Discussion of 'Second Law Analysis of Laminar Viscous Flow Through a Duct Subjected to Constant Wall Temperature' " (2007, ASME J. Heat Transfer, 129, p. 1302)

Ahmet Z. Sahin
Department of Mechanical Engineering,
King Fahd University of Petroleum and Minerals,
Dhahran, 31261 Saudi Arabia
e-mail: azsahin@kfupm.edu.sa

I would like to thank M. M. Awad for the time he spent and appreciate his consideration in reading and carefully reviewing the paper, Sahin, A. Z., 1998, "Second Law Analysis of Laminar Viscous Flow Through a Duct Subjected to Constant Wall Temperature" ASME J. Heat Transfer, **120**(1), pp. 76–83.

Obviously, the term $(1-e^{-4Sr\lambda})$ in Eq. (10) was supposed to be $(1-e^{-4Sr\lambda})^{-1}$. Unfortunately, this error was propagated in the rest of the paper in Eqs. (14), (17), (20), (22) and in p. 81. Perhaps this is the only major concern about the paper.

As for the range of τ in Table 1, the choice was $0.0 \leq \tau \leq 0.2$ and it is not an error. The reason for this choice is to make sure that all the temperatures in the flow domain remain within the range of temperatures 293 K $\leq T \leq$ 373 K, within which the viscosity model parameters a, b, B, and n given in Table 1 are valid (especially for the case of glycerol).

The values of T_0 in Tables 2*b* and 3*b* are in K; however, (°C) in the labels are typing errors.

In the paper, Sahin, A. Z., 1998, "A Second Law Comparison for Optimum Shape of Duct Subjected to Constant Wall Temperature and Laminar Flow," Heat and Mass Transfer /Wärme-und Stoffübertragung, 33(5-6), pp. 425–430, the fluid was assumed to be fully developed laminar as it enters the duct in all types of geometry. Therefore, the comments made regarding the thermal entry length are not relevant.

Contributed by the Heat Transfer Division of ASME for publication in the JOURNAL OF HEAT TRANSFER. Manuscript received March 19, 2007; final manuscript received March 21, 2007. Review conducted by Yogesh Jaluria.

