THE ASTROPHYSICAL JOURNAL, Vol. 152, June 1968

AN ESTIMATE OF THE SURFACE TEMPERATURE OF VENUS INDEPENDENT OF PASSIVE MICROWAVE RADIOMETRY: A CORRECTION

Owing to a numerical error introduced at the galley-proof stage, several incorrect entries in Table 1 of the paper by Sagan (1967) have been published. A corrected version follows:

TABLE 1

$[CO_2]$	Temperature Correction	Γ (°K km^{-1})	T_s(°K)	
			$\lvert z_c \rvert = 44$ km	$\lvert z_c \rvert = 65$ km
1 00	No	10 1	654	865
1 00	Yes	7 9	556	721
0 80	No	9 7	635	838
0 80	Yes	7 9	557	723
0 60	No	9 3	618	812
0 60	Yes	7 9	558	724
0 40	No	8 9	602	789
0 40	Yes	7 9	558	725
0 20	No	8 6	587	767
0 20	Yes	7 9	559	726
0 00	No	8 3	573	747
0 00	Yes	8 0	560	727

The acceleration due to gravity on Venus was taken as 860 cm sec^{-2}; the values of c_p are taken from Hilsenrath *et al.* (1955). The uncorrected case was taken for 300° K and 1 bar; the corrected case for 600° K and 25 bars. The conclusions of the paper are unaffected by these changes, with the exception that atmospheres of pure carbon dioxide cannot be excluded for mean surface temperatures $\simeq$700° K. At the higher temperatures and pressures, c_p for carbon dioxide and nitrogen are essentially identical and independent of the relative proportions of carbon dioxide and nitrogen; the adiabatic lapse rate in the lower atmosphere will then be close to 7.9° K km^{-1}. For high carbon dioxide mixing ratios the calculated mean surface temperatures range between values reported by Venera 4 and the typical values derived from analyses of the thermal microwave emission.

CARL SAGAN

November 24, 1967
HARVARD UNIVERSITY
AND
SMITHSONIAN ASTROPHYSICAL OBSERVATORY

REFERENCES

Hilsenrath, J., Beckett, C. W., Benedict, W. S., Fano, L., Hoge, H. J., Masi, J. F., Nuttall, R. L., Touloukian, Y. S., and Woolley, H. W. 1955, *Tables of Thermal Properties of Gases* (N.B.S. Circ 564).
Sagan, C. 1967, *Ap J.*, **149**, 731.