The frequency conditions (1) and (6) support the conjecture that for a clamped or fixed-hinged edge the graph vs ψ of this frequency will consist of a rapid oscillation with fairly small amplitude (the amplitude depending roughly on $\epsilon^{1/2}$) about the value $\Omega = \Omega_B = [2/(1 - \nu)]^{1/2}$.

References

[1] Cohen, G. A., "Computer analysis of asymmetric free vibrations of ring-stiffened orthotropic shells of revolution," AIAA J. **3**, 2305–2312 (1965).

[2] Kalnins, A., "Effect of bending on vibrations of spherical shells," J. Acoust. Soc. Am. **36**, 1355–1365 (1964).

[3] Ross, E. W., Jr., "Natural frequencies and mode shapes for axisymmetric vibration of deep spherical shells," J. App. Mech. **32**, 553–561 (1965).

[4] Navaratna, D. R., private communication, Aeroelastic & Structures Research Lab., Massachusetts Institute of Technology, Cambridge, Mass. (1965).

Reply by Author to E. W. Ross Jr.

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IN reply to Ross' very pertinent comments, I would simply like to add the fact that a hand computation shows the ratio of bending strain energy to total strain energy for the third axisymmetric mode of the 60° fixed-hinged spherical shell ($h/R = 0.05$, $\nu = 0.3$) to be approximately 0.12. This result is in accordance with Ross' observation that although the third frequency is close to the pure membrane frequency, the mode is considerably different from the pure membrane mode.

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Errata: "Theory of Electrostatic Double Probe Comprised of Two Parallel Plates"

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[AIAA J. 4, 442–450 (1966)]

CERTAIN printout errors in the digital computer program pertaining to Figs. 2 through 6, have been brought to our attention.

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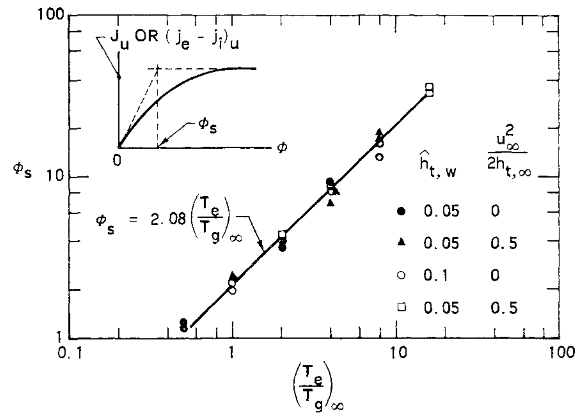

Fig. 8 Correlation of saturation potential.

According to the corrected numerical results, the assumption $(1/\beta_\infty)(\theta m/\hat{h})' \ll m'$ is more acceptable than the one on the second derivative made preceding Eq. (22). Equation (22) should be changed to

$$(1/Sc_i)[m + (1/\beta_\infty)(\theta m/\hat{h})]'' + f[m + (1/\beta_\infty)(\theta m/h)]' = 0$$

The solution of the preceding equation should replace that of Eq. (22) in Eqs. (24) and (39).

According to the revised correlation $(T_e/T_g)_\infty$ should be determined from the relationship given in Fig. 8 instead of Eq. (52) and Fig. 4. Also, $J_u = 0.5 + 0.47\ (T_e/T_g)_\infty$ should replace $J_u = 0.9$ in Eq. (53). The general discussions of the paper are still valid. A detailed discussion of the correction is given on the errata for Aerospace Corporation TDR-469(S5240-10)-3 under the same title.

Errata: "Hypersonic Flow over a Delta Wing of Moderate Aspect Ratio"

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[AIAA J. 4, 555–556 (1966)]

INCORRECTLY typeset expressions are:

1) The left-hand side of the equation for A_0 and B_0, which should read $A_0 = B_0$

2) The definition of G_M, which should read:

$$G_M \equiv -[(\gamma - 1)/2]Z_{MC}$$

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