DISCUSSION

B. Singh[1] *(discusser's questions)*—What are the effects of roughness of the specimen on such polarization data, and the directional aspects of roughness?

D. R. Johns (author's responses)—Work was done on roughness values corresponding to 80 grit, 240 grit, and 400 grit, with no discernible differences. In fact, the secondary peaks were much the same. All the tests were subsequently done at 400 grit for comparison purposes.

J. M. Sykes[2] *(discusser's question)*—Do you have a good reason for using a positive-going potential sweep? Have you tried negative-going sweeps, as in the EPR test? If you begin with a passive surface, the anodic activity of the grain boundaries might be masked less by the active peak.

D. R. Johns (author's response)—The PCA test measures the retardation of passivation of grain boundaries previously activated in the primary anodic loop. In all but the most sensitive specimens we find full passive behavior in the secondary potential range during negative-going sweeps.

D. McIntyre[3] *(discusser's question)*—What correlation would you expect between your test and the ASTM A 262 practice test?

D. R. Johns (author's response)—Where the IGC was due to chromium carbide precipitation, I would expect a good fit between the tests. Perhaps step structures would be seen after oxalic testing in materials giving an i_{spec} below some value, a ditch above some higher value, and dual structures in between.

In low carbon alloys where the PCA activity is due to some other mechanism, I imagine there would be little correlation.

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