

## DISCUSSION

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*A. L. Bement*<sup>1</sup>—In your specimens of A431 and A403 steel, which exhibit semicontinuous stringers of delta ferrite, one would expect low-energy absorption in a Charpy test for the transverse direction. In this case there is a weak phase (delta ferrite) surrounded by a strong phase (tempered martensite), and fracture should initiate and propagate along the delta ferrite stringers. Therefore, a systematic correlation of impact properties against bulk structure (grain size, mean carbide separation, etc.) should not be expected unless mechanical anisotropy is taken into account.

*R. R. Hosbons (authors' closure)*—Only AISI 403 heat B contains semicontinuous stringer orientation which would affect the charpy V notch properties of the steel, and therefore we think that the analysis we have carried out is still valid.

<sup>1</sup> Battelle-Northwest, Richland, Wash. 99352.