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THE DEPENDENCE OF THE TAYLOR-QUINNEY COEFFICIENT  
ON THE DYNAMIC LOADING MODE

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## Highlights

- The Taylor-Quinney coefficient (TQC) is measured for 7 metals and alloys.
- Tension, compression and dominant shear are applied to each material.
- A large variability of the TQC is observed with values different from 0.9.
- With the exception of CP-Ti, identical TQC's are measured in tension, compression and shear.
- For CP-Ti, twinning operates mostly in compression and shear, leading to different TQC's.
- Deformation micromechanisms determine the TQC.

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