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Specific cutting energy modeling for turning nickel-based Nimonic 90 alloy under MQL condition

Chetan , S. Ghosh , P.V. Rao

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Highlights

- Pseudo-analytical model has been developed for predicting the specific cutting energy under sustainable MQL mode.
- The model takes into consideration both the shearing and frictional energy components.
- Specific frictional energy at the secondary shear zone has been modeled using the dual contact zone theory.
- Coefficient of friction in the sliding zone for the frictional energy has been obtained using open tribo meter tests.

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