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Prediction of mechanical behavior of composites under high strain rate tensile loading

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Highlights

- Different types of specimens used for composites and metals for high strain rate tensile testing are summarized.
- Complexities involved with high strain rate tensile testing are discussed.
- Experimental studies are performed on four types of materials under high strain rate tensile loading.
- Variable rate power law is proposed to predict the tensile strength at high strain rates up to 2000 /s.
- Analytical predictions are found to be in good match with the available experimental results.

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