

Plastic Properties Estimation of Steel Alloys Using Machine Learning of Ultrasonic Data

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Steel alloys are crucial in various industries due to their enhanced properties compared to plain-carbon steel. Alloying elements are added to steels to improve specific properties such as strength, wear, and corrosion resistance. These elements include chromium, cobalt, columbium, molybdenum, manganese, nickel, titanium, tungsten, silicon, and vanadium.

This research on “Plastic Properties Estimation of Steel Alloys using Machine Learning of Ultrasonic Data” discusses a data-driven approach to estimate the plastic properties of steel alloys. This involves using machine learning algorithms to analyze ultrasonic data, thereby providing an alternative method for predicting the plastic properties namely yield strength, ultimate tensile strength and elongation. Such advancements could significantly enhance our ability to tailor the properties of steel alloys for specific applications, further increasing their importance in various industries.

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