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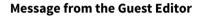
# Formation and Behavior of Metastable Austenite in Advanced High Strength Steels

Guest Editor:

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The historical development of advanced high strength steels (AHHS) includes 1st, 2nd and 3rd generation AHHS. The 1st generation basically includes low-alloy steels with ferritic matrix and multiphase microstructure. Low-alloy TRIP steels, which belong to the 1st generation, are multiphase steels containing metastable retained austenite, exhibiting the TRIP effect. The 2<sup>nd</sup> generation AHHS steels include high-alloy steels containing a high amount of manganese. These steels exhibit a fullyaustenitic microstructure and the deformation-induced  $\mathbf{v} \rightarrow \mathbf{\epsilon}$  and  $\mathbf{\epsilon} \rightarrow \mathbf{\alpha}$ ' transformations influence their mechanical behavior. The 3<sup>rd</sup> generation AHHS steels include steels with mechanical properties filling the gap between the 1st and 2<sup>nd</sup> generations. Quench & Partitioning (Q&P) and Medium-Mn steels are examples of 3rd generation AHHS steels

For further reading, please follow the link to the Special Issue Website at:

http://www.mdpi.com/journal/materials/special\_issues/ austenite\_high\_strength\_steels

> Prof. Gregory N. Haidemenopoulos *Guest Editor*









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