

Lecture outline
on

Trend in Advanced High Strength Steels and Application Technologies
for Automobile

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In order to reduce CO₂ emission from automobile, weight reduction of vehicle body weight has been one of the most important subjects. Although application of light weight materials can be a solution for the body weight reduction, crash safety requirements have to be satisfied at the same time. In addition, in order to achieve substantial reduction of CO₂, life cycle assessment (LCA) also needs to be considered.

Advanced high strength steels (AHSS) have been developed for such increasing demands. Higher strength and better formability were achieved by advanced microstructural control technologies. Application technologies such as press forming technology with CAE analysis and welding technologies such as resistance spot welding have been developed and playing important roles for application of AHSS.