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Experimental studies on the structural modification of Al and Mn and Si alloy by adding sodium fluoride

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Abstract

They conducted experiments to study the structural modification of Al and Mn and Si alloy by adding sodium fluoride and these alloys are important engineering materials because of good strength to weight ratio, excellent thermal property, workability etc. In their work the Mn and Si are modifying elements and sodium fluoride as refining element. These alloys were produced by melting a fixed amount of charged Al and Si and Mn. After cooling the mechanical microstructure examinations were conducted. The strength values and elongation were determined by using TUE-C-100 model universal testing machine. The micro structure was studied using metallographic microscope. Their results showed that the mechanical properties were improved, with fine distribution of Si particulars as a result of increased concentration of sodium fluoride.