

機械・精密システム工学科 論文発表

【発表者について】 アンダーラインは本学教員および研究員、※は大学院生、卒研生または卒業生

題名	Cooling Capacity of Mold and Deformation of Model depending on Sand Fluidity in Expendable Pattern Casting using Artificial Sand
掲載雑誌	Transactions of 23rd Annual Conference on Lost Foam, V Method and Full Mold Casting Technology in China
著者	S. Koroyasu, M. Norikuni, Y. Shimada and A. Ikenaga
概要	The cooling capacity of the mold and effect of sand fluidity on the deformation of the pattern in the expendable pattern casting process using artificial sand were investigated experimentally. When artificial sand was used, the cooling curve of the aluminum alloy plate was almost the same as the case of natural silica sand. When artificial sand was used, the flow rate into horizontal hole during vibration was considerably higher than when using natural silica. The deformation of the EPS pattern occurred during sand filling relaxed by the vibration of flask. In the case of artificial sand, this effect of the relaxation was more remarkable and the relaxation time was shorter, than the case of natural silica sand.