

航空宇宙工学科 学会発表

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

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演題名	Fabrication Conditions of SiC Fiber Reinforced TiAl Intermetallics by Hot Press
発表者	○ <u>Keizo Hashimoto</u> , ※Takahiro Ando, ※Hiroataka Kato and ※Rikako Kono
内容	<p>Although TiAl based SiC fiber reinforced composite has been expected to be one of the best combination for the high temperature structural material, a fabrication of SiCCVD / TiAl composite has not been fully success until now. SiCCVD fiber and alloy designed -TiAl which has a capability of the super plastic deformation were consolidated by the vacuum hot pressing process. It was found that the most appropriate condition of the consolidation temperature was very narrow temperature range (1050-1250C) based on the observations of the fiber/matrix interface. A unidirectional SiC/TiAl composite having a lower fiber volume fraction appeared to the designed mechanical properties. Fabrication condition of SiCCVD/TiAl composite will be discussed in detail.</p>