

Function - Material - Application - Issue (No.3)

Function	Materials	Expected Features	Application	Competing Materials	Technical Issues	Others
Corrosion Resistant	Al_2O_3 , Si_3N_4 , SiC	<ul style="list-style-type: none"> Long life of various components using acid/alkali/molten metal resistance 	Chemical equipment, heat exchanger, high grade refractory		<ul style="list-style-type: none"> Improving design and bonding technology Non-destructive evaluation Accumulation of applications 	
Adsorptive	Al_2O_3 , $SiO_2 \cdot Al_2O_3$, cordierite	<ul style="list-style-type: none"> Improvement of purification and manufacturing process for chemicals and intermediates Higher quality of products Improvement of living conditions 	Catalyst carrier, oxygen fixation carrier, absorbant, sensor	Polymers		
Catalytic	Zeolite, transition metal oxide	<ul style="list-style-type: none"> Improvement of purification and manufacturing process for chemicals and intermediates Higher quality of products Improvement of living conditions 	Catalyst for catalytic decomposition, purification catalyst for off-gas			
Biocompatible	Al_2O_3 , C, hydroxy apatit	<ul style="list-style-type: none"> Up-grading medical science Meeting demand for maturity/welfare society 	Artificial teeth root, artificial joint, artificial bone	Stainless steel, Polymers	<ul style="list-style-type: none"> Shortening duration of processing Automation of design and processing 	<ul style="list-style-type: none"> Application of health insurance

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