MATERIALS SCIENCE AND ENGINEERING: A
Structural Materials: Properties, Microstructure and Processing

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**Keywords**
The keywords for Materials Science and Engineering A are separated into four categories:

- **A. METHOD OF INVESTIGATION**
- **B. MATERIAL OR CONSTITUTING PHASE(S)**
- **C. PROCESSING METHOD**
- **D. INVESTIGATED PHENOMENON**

```
meth  A. METHOD OF INVESTIGATION
   characterization
   electron microscopy
   finite element analysis
   first principles
   fracture mechanics/fracture behaviour/fatigue
   hardness
   micromechanics
   modelling/simulations
   phase diagrams
   simulations
   stress/strain measurements
   thermal analysis
   X-ray analysis
   other

mat  B. MATERIAL OR CONSTITUTING PHASE(S)
   aluminium alloys
   amorphous materials
   biomaterials
   ceramics
   composites
   copper alloys
   glass
   intermetallics
   iron alloys
   magnesium alloys
   nanocrystalline materials
   nickel alloys
   other materials
```
other metallic alloys
shape memory alloys
titanium alloys

proc C. PROCESSING METHOD
casting methods
coatings
laser methods
plasticity methods
powder methods
surface phenomena

phen D. INVESTIGATED PHENOMENON
grains and interfaces
phase transformation
plasticity