



**1st Level:** Choose **one** from the list below.

- 10 Engineering and structural materials
- 20 Organic and soft materials (colloids, liquid crystals, gel, polymers)
- 30 Bio-inspired and biomedical materials
- 40 Optical, magnetic and electronic device materials
- 50 Energy materials
- 60 Materials Informatics
- 70 New topics/Others

**2nd Level:** Choose **several** from the list below.

- 100 Materials
  - 101 Self-assembly / Self-organized materials
  - 102 Porous / Nanoporous / Nanostructured materials
  - 103 Composites
  - 104 Carbon and related materials
  - 105 Low-Dimension (1D/2D) materials
  - 106 Metallic materials
  - 107 Glass and ceramic materials
- 200 Applications
  - 201 Electronics, Semiconductor, TCOs
  - 202 Dielectrics, Piezoelectrics, Insulators
  - 203 Magnetics, Spintronics, Superconductors
  - 204 Optics, Optical applications
  - 205 Catalyst, Photocatalyst, Photosynthesis
  - 206 Energy conversion / transport / storage / recovery
  - 207 Fuel cells, Batteries, Super capacitors
  - 208 Sensors and actuators
  - 209 Solar cell, Photovoltaics
  - 210 Thermoelectronics, Thermal transport / insulators
  - 211 Scaffold, Tissue engineering, Drug delivery
  - 212 Surface and interfaces

**300 Processing / Synthesis and Recycling**

- 301** Chemical syntheses / processing
- 302** Crystallization, Heat treatment, Crystal growth
- 303** Mechanical / Physical processing
- 304** Powder processing / Sintering
- 305** Plasma / Laser processing
- 306** Thin film, Coatings
- 307** Kinetics and energy / mass transport
- 308** Materials resources / recycling

**400 Modelling/Simulations**

- 401** 1st principles methods
- 402** Semiempirical / empirical methods
- 403** Electronic structure calculations
- 404** Dynamics simulations
- 405** Responses, Reactions
- 406** Multi-scale / multi-physics modelling
- 407** CALPHAD, Phase field methods

**500 Characterization**

- 501** Chemical analyses
- 502** Electron spectroscopy
- 503** TEM, STEM, SEM
- 504** X-ray / Neutron diffraction and scattering
- 505** Optical / Molecular spectroscopy

**600 Materials Informatics**

- 601** Materials data generation (High throughput experiments and/or calculation)
- 602** Data analysis (AI, Machine learning, Data-driven analysis, Descriptor development, Structure search/identification)
- 603** Materials data utilization (Data mining, High throughput screening)
- 604** Computer systems and services
- 605** Databases, data structure, ontology

**700 Others: Please specify.**

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