Bulk nanostructured materials

List of topics

1. **Bulk ultrafine-grained and nanocrystalline materials**
Classification of the processing of bulk ultrafine-grained materials. Bottom-up and top-down approaches. Grain-refinement by plastic deformation. Unique mechanical properties of ultrafine-grained and nanocrystalline materials (yield strength, ductility, superplastic deformation).

2. **Processing of bulk ultrafine-grained metals and alloys by powder metallurgy**

3. **Processing of bulk UFG materials by severe plastic deformation**

4. **Nanocrystallization of bulk metallic glasses**

5. **Nanocomposites**
6. Nanoporous materials