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**Keyword Listing**

1. **Materials**

   aluminum nitride (AlN)
   amorphous
   amorphous carbon
   amorphous hydrogenated carbon
   amorphous alloys
   boron nitride (BN)
   carbides
   carbon nitride
   composites
   cubic boron nitride (c-BN)
   diamond crystal
   diamond film
   diamond-like carbon
   fibres
   fullerenes
   gallium nitride (GaN)
   graphite
   glassy carbon
   metastable phases
   nanocrystalline
   nanofibers
   nanoparticles
   nanostructures
   nanotubes
   natural diamond
   nitrides
   polytypes
   silicon carbide (SiC)
   synthetic diamond
   tetrahedral amorphous carbon

2. **Growth and Synthesis**

   bias growth
   buffer layer
   cathodic arc discharge
   chemical vapor deposition
   chemisorption
   combustion synthesis
   simulation
   single crystal growth
   gas phase reactions
   heteroepitaxy
   heterojunction
   high pressure crystal growth
   high pressure high temperature (HTHP)
   homoepitaxy
   hot filament CVD
   ion assisted deposition
   ion beam deposition
   ion bombardment
   molecular beam epitaxy (MBE)
   nucleation
physical vapor deposition  
plasma CVD  
pulsed laser deposition (PLD)  
reactor modelling  
solution growth  
sputtering  
sublimation growth  
vapour growth

3. Processes and Phenomena

abrasion  
absorption  
adhesion  
adsorption  
catalytic processes  
corrosion  
desorption  
diffusion  
etching  
field emission  
friction  
impact ionization  
implantation  
isotopic effects  
oxidation  
optical emission  
passivation  
polishing  
radiation induced effects  
reactive ion etching (RIE)  
wear

4. Characterization

defect characterization  
electrical properties characterization  
grain boundary characterization  
high resolutions electron microscopy  
impurity characterization  
interface characterization  
mechanical properties characterization  
optical properties characterization  
scanning probe techniques  
surface characterization  
surface microscopy  
vibrational properties characterization

5. Properties

acoustic properties  
band structure  
biocompatibility  
bonding configurations  
n-type doping  
p-type doping  
defects  
electrical conductivity  
electrical properties  
electron affinity
6. Applications

actuators
biomaterials
biomedical applications
coatings
cutting tools
device modeling
detectors
display technologies
electrodes
electrochemical
electronic device structures
high power electronics
high frequency electronics
light emission
laser materials
membranes
micro electromechanical systems (MEMS)
nanotechnology
Schottky diodes
sensors
surface acoustic wave devices
superhard materials
windows

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