MATERIALS RESEARCH BULLETIN
An international journal reporting research on the synthesis, structure, and properties of materials

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DESCRIPTION

Materials Research Bulletin is an international journal reporting high-impact research on processing-structure-property relationships in functional materials and nanomaterials with interesting electronic, magnetic, optical, thermal, mechanical or catalytic properties. Papers purely on thermodynamics or theoretical calculations (e.g., density functional theory) do not fall within the scope of the journal unless they also demonstrate a clear link to physical properties. Topics covered include functional materials (e.g., dielectrics, pyroelectrics, piezoelectrics, ferroelectrics, relaxors, thermoelectrics, etc.); electrochemistry and solid-state ionicics (e.g., photovoltaics, batteries, sensors, and fuel cells); nanomaterials, graphene, and nanocomposites; luminescence and photocatalysis; crystal-structure and defect-structure analysis; novel electronics; non-crystalline solids; flexible electronics; protein-material interactions; and polymeric ion-exchange membranes.

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INTRODUCTION

Materials Research Bulletin is an international journal reporting high-impact research on processing-structure-property relationships in functional materials and nanomaterials with interesting electronic, magnetic, optical, thermal, mechanical or catalytic properties. Papers purely on thermodynamics or theoretical calculations (e.g., density functional theory) do not fall within the scope of the journal unless they also demonstrate a clear link to physical properties. Topics covered include functional materials (e.g., dielectrics, pyroelectrics, piezoelectrics, ferroelectrics, relaxors, thermoelectrics, etc.); electrochemistry and solid-state ionic (e.g., photovoltaics, batteries, sensors, and fuel cells); nanomaterials, graphene, and nanocomposites; luminescence and photocatalysis; crystal-structure and defect-structure analysis; novel electronics; non-crystalline solids; flexible electronics; protein-material interactions; and polymeric ion-exchange membranes.

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elements
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halides
hydrides
inorganic compounds
interfaces
intermetallic compounds
layered compounds
magnetic materials
metals
microporous materials
multilayers
nanostructures
nitrides
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XAFS (EXAFS and XANES)
X-ray diffraction
neutron diffraction
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electron spin resonance

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charge-density waves
spin density waves
color centers
crystal structure
defects
dielectric properties
diffusion
elastic properties
electrical properties
electrochemical properties
electronic paramagnetic resonance (EPR)
electronic structure
energy storage
equations-of-state
Fermi surface
ferroelectricity
fracture
ionic conductivity
specific heat
spin-density waves
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