Structural And Electrical Properties Of Tantalum

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Studies on the Growth, Structural and Electrical Properties of Silicon-based Heterostructure Nanowires

Structural and Electrical Properties of 0.65PMN-0.35PT Thick Films on Different Substrates

Effect of Laser Irradiation of Structural and Electrical Properties of CVD Grown Graphene

Structural and Electrical Properties of Oxide Thick Films Prepared by Thermal Spray for Direct-write Applications

Structural and Electrical Properties of Thin Deposited Single Crystal Germanium Films

Oxide high-T[sub c] superconducting wires and tapes with high critical current density (J[sub c]) are essential in future electrical power applications. Recently, YBa[sub 2]Cu[sub 3]O[sub 7[minus]x] (YBCO) thin films grown on Ni-based alloy tapes have attracted intense interest because of their promise for these applications. In order to achieve high J[sub c], buffer layers are necessary for fabricating biaxially aligned YBCO thin films. In our studies, yttria-stabilized zirconia (YSZ) layers were deposited on Ni-based alloy substrate by ion-beam assisted deposition, and CeO[sub 2] buffer layers were subsequently deposited on the YSZ layer by pulsed laser deposition (PLD) or electron beam evaporation. In addition, MgO layers were deposited on Ni-based alloy substrates by inclined substrate deposition. Finally, biaxially textured YBCO thin films were deposited on these buffered metallic substrates by PLD under optimized conditions. The orientation and in-plane textures of YBCO and the buffer layers were characterized by X-ray diffraction[Theta]/2[Theta] scan, [phi]-scan, and pole figure analysis. The superconductive transition features were examined by measuring inductive T[sub c] and transport J[sub c].

Structural and Electrical Properties of Indium Phosphide Anodic Oxides

Structural and Electrical Properties of Biaxially Textured YBa[sub 2]Cu[sub 3]O[sub 7-x] Thin Films on Buffered Ni-based

Alloy Substrates
The Structural and Electrical Properties of Electroless Nickel-boron Thin Films
Doctoral Dissertation
Structural and Electrical Properties of Graphite Intercalation Compounds and Graphite Fiber Compounds

Thermal spray has been examined as a direct write technique for hybrid electronic devices, since it has potential advantages that include both high deposition rate and low temperature deposition. The mid-k and high-k dielectric thick films were deposited using plasma spray or high velocity oxy fuel spray at a deposition rate of 15 mum/second. Their dielectric properties were assessed.

Processing, Structural and Electrical Properties of SiC
Structural and Electrical Properties of In-implanted Ge
Structural and Electrical Properties of Some Manganites Compounds
Structural and Electrical Properties of Ion Beam Synthesised Ternary Iron-cobalt Silicide
A Study of Structural and Electrical Properties of Ultrathin Metal Films

Graphene is the first discovered 2-D material. Its structure is composed of a honeycomb shaped lattice composed of sp2 bonded carbon atoms. Its structural properties can be studied in great detail using Raman spectroscopy. However, of great interest are its electrical properties. Theoretically, graphene's charge carriers can be tuned continuously to values as high as 10113 cm-2 and its mobility can be as high as on the order of 120,000 cm2/(V*s). While this entices researchers, there are difficulties due to graphene's linear IV curve and the lack of control over its doping levels. This research seeks to use laser irradiation to modify graphene's properties. In the first instance, laser irradiation can be used to remove excess residue, thereby allowing graphene to better achieve its mobility potential. Nonetheless, one must remain cognizant that this process may cause differences in graphene's structural properties that may alter its electrical characteristics. Using field effect transistor measurements and Hall Effect measurements, this research addresses these alterations. It was found that laser irradiation in vacuum causes increased carrier concentration and decreased mobility. Alternatively, annealing the sample in forming gas causes decreased carrier concentration and increased mobility. Hence, it is seen that the doping level of the graphene can be modified using laser irradiation and annealing in different environments.

Structural and Electrical Properties of Thin Films and Superlattices Composed of II-VI Semiconductors
Structural and Electrical Properties of Diamond Thin Films
Thermal, Infrared, Structural and Electrical Properties of Copper (II) Benzoate Derivatives
The Optical, Structural and Electrical Properties of DC Magnetron Sputtered Al-1%-Si Alloy
Impact of Interfaces on the Structural and Electrical Properties of Epitaxial PZT Heterostructures
The Structural and Electrical Properties of Manganese TelluridеOpen Dissertation Press
Structural and electrical properties of ZnTe-Ge heterojunctions
The Structural and Electrical Properties of Thin GaAs Films
The Growth, Thermal Stability, and Structural and Electrical Properties of Doped and Undoped Si-based Epitaxial Structures
Structural and Electrical Properties
Structural and Electrical Properties of Y1 Cr[subscript 1-x-y] Mn[subscript X] Co[subscript Y] O3

Colossal magnetoresistive (CMR) compounds with the perovskite structure

are mainly characterized by a competition between ferromagnetism and paramagnatism, and between a metallic and insulator behavior.Electrical and structure have been studied in La1-xSrxMnOy (x = 0.1,0.15,0.2,0.25,0.3,0.35). The magnetoresistance was determined by measuring the temperature dependence of resistivity under a magnetic field 0.5 T. It was negative for all compositions and significantly influenced by the Sr content and annealing time. The obtained magnetoresitance values may make the materials promising for different applications.

Structural and Electrical Properties of Substituted Potassium Tantalate System

Structural and Electrical Properties of Some Organic Semiconductors

Structural and Electrical Properties of Epitaxial Cerium Oxide on Silicon Substrates

The Structural and Electrical Properties of Thin Films Sputtered from a Platinum Cathode in Argon-oxygen Mixtures

Here, we report on the effects of dopant concentration on the structural and electrical properties of In-implanted Ge. For In concentrations of $\leq$ 0.2 at. %, extended x-ray absorption fine structure and x-ray absorption near-edge structure measurements demonstrate that all In atoms occupy a substitutional lattice site while metallic In precipitates are apparent in transmission electron micrographs for In concentrations $\geq$0.6 at. %. Evidence of the formation of In-vacancy complexes deduced from extended x-ray absorption fine structure measurements is complimented by density functional theory simulations. Hall effect measurements of the conductivity, carrier density, and carrier mobility are then correlated with the substitutional In fraction.

Structural and Electrical Properties of Spray Deposited Copper Indium Disulphide Films for Solar Cells

Structural and Electrical Properties of Si-rich Silicon Nitride: Its Application in Current Enhancement Injection

Structural and Electrical Properties of Zirconia Doped with Some Oxides

Understanding the Thermal, Structural, and Electrical Properties of the High Entropy Ceramics, High Entropy Oxides and Carbides, Using Computational Modeling

Phase Diagram, and Structural and Electrical Properties of Pyrochlores in Bi2O3-ZnO-Nb2O5 Ternary System