Urbach edge, disorder, and absorption on-set in a-Si:H

Novel in situ and real-time optical probes to detect (surface) defect states of a-Si:H

Correlation between powder in the plasma and stability of high rate deposited a-Si:H

The role of SiH$_3$ diffusion in determining the surface smoothness of plasma-deposited amorphous Si thin films: an atomic-scale analysis

Development of deposition phase diagrams for thin film Si:H and Si$_{1-x}$Ge$_x$:H using real time spectroscopic ellipsometry

Electronic properties of improved amorphous silicon-germanium alloys deposited by a low temperature hot wire chemical vapor deposition process

AFM morphology study of Si$_{1-y}$Ge$_y$:H films deposited by LF PE CVD from silane-germane with different dilution

Improved optical loss characteristics of PECVD silicon oxynitride films using low frequency plasma

Growth chemistry of nanocrystalline Si:H films

Nanocrystalline Si films and devices produced using chemical annealing with helium

Nanocrystalline-Si thin film deposited by inductively coupled plasma chemical vapor deposition (ICP-CVD) at 150[degrees]C

Influence of pressure and plasma potential on high growth rate microcrystalline silicon grown by VHF PECVD

High density plasma processing of microcrystalline Si thin films

Dependence of microcrystalline silicon growth on ion flux at the substrate surface in a saddle field PECVD

'Seed layers' for the preparation of hydrogenated microcrystalline silicon with defined structural properties on glass

Crystallographic study of the initial growth region of [mu]c-Si with different preferential orientations

Structural and electronic properties of hydrogenated nanocrystalline silicon films made with hydrogen dilution profiling technique

Structure of microcrystalline solar cell materials: what can we learn from electron microscopy?

Microcrystalline and nanocrystalline silicon: simulation of material properties

Doping dependence of chlorine incorporation in SiCl$_4$-based microcrystalline silicon films

Low substrate temperature deposition of crystalline SiC using HWCVD

Nanocrystalline germanium and germanium carbide films and devices

Real-time spectroscopic ellipsometry as an in situ probe of the growth dynamics of amorphous and epitaxial crystal silicon for photovoltaic applications

A phase diagram of low temperature epitaxial silicon grown by hot-wire chemical vapor deposition for photovoltaic devices

Silicon homoepitaxy using tantalum-filament hot-wire chemical vapor deposition

Growth of "new form" of polycrystalline silicon thin films synthesized by hot wire chemical vapor deposition

Hot-mesh chemical vapor deposition for 3C-SiC growth on Si and SiO$_2$
Polycrystalline GeC thin films deposited using a unique hollow cathode sputtering technique p. 195
Micro-crystalline silicon-germanium thin films prepared by the multi-target RF sputtering system p. 201
Poly-crystalline Ge thin films prepared by RF sputtering method for thermo photo voltaic application p. 207
Ge growth on nanostructured silicon surfaces p. 213
GaAs growth on micro and nano patterned Ge/Si$_{1-x}$Ge$_x$ and Si surfaces p. 219
Real time monitoring of the crystallization of hydrogenated amorphous silicon p. 227
Solid phase crystallization of hot-wire CVD amorphous silicon films p. 233
Suppression of nucleation during the aluminum-induced layer exchange process p. 239
Correlation of in and ex situ stress to microstructures during Al-induced crystallization of PECVD amorphous silicon p. 245
TCAD modeling of metal induced lateral crystallization of amorphous silicon p. 251
Excimer laser crystallized HWCVD thin silicon films : electron field emission p. 257
Formation of a miscibility gap in laser-crystallized poly-SiGe thin films p. 263
Ultra-shallow junction formation by a non-melting process : double-pulsed green laser annealing p. 269
Application of field-enhanced rapid thermal annealing to activation of doped polycrystalline Si thin films p. 275
Effects of post annealing and material stability on undoped and n$^{+}$nc-Si:H films deposited at 75$^{\circ}$C using 13.56 MHz PECVD p. 281
Annealing characteristics of Al-doped hydrogenated microcrystalline cubic silicon carbide films p. 287
Initial stage hydrogen movement and IR absorption proportionality constants in hot-wire deposited SiN$_{1.2}$:H during high-temperature annealing p. 293
Electrodeposition of fluorescent Si nanomaterial from acidic sodium silicate solutions p. 301
High-yield synthesis of luminescent silicon quantum dots in a continuous flow nonthermal plasma reactor p. 307
Experimental study of silane plasma nanoparticle formation in amorphous silicon thin films p. 313
Effects of N$_2$O fluence on the PECVD-grown Si-rich SiO$_x$ with buried Si nanocrystals p. 319
CO$_2$ laser annealing synthesis of silicon nanocrystals buried in Si-rich SiO$_x$ p. 325
Charging effect of a nc-Si in a SiO$_x$ layer observed by scanning probe microscopy p. 331
Conductance fluctuations in amorphous silicon nanoparticles p. 337
Study of the oxidation of polycrystalline SiGe : formation of Ge nanocrystals and their related luminescence p. 343
Formation of antimony 1D-nanostructures on Si (5 5 12) surface p. 351
Fabrication of one-dimensional silicon nanowires based on proximity effects of electron-beam lithography p. 357
Fabrication of silicon nanowire network in aluminum thin films p. 363
Wiring and introduction of single silicon nanocrystals into multi-walled carbon nanotubes

Metal induced growth of poly-Si solar cells and silicide nanowires by use of multiple catalyst layers

New light trapping in thin film solar cells using textured photonic crystals

Advances in amorphous silicon integrated photonics science and technology

Fabrication of nano-crystalline porous silicon on Si substrates by a plasma enhanced hydrogenation technique

Application of spectroscopic ellipsometry and infrared spectroscopy for the real-time control and characterization of a-Si:H growth in a-Si:H/c-Si heterojunction solar cells

High-performance amorphous silicon emitter for crystalline silicon solar cells

Bifacial silicon heterojunction solar cell with deposited back surface field

Electron field emission from SiC/Si heterostructures formed by carbon implantation into silicon and etching of the top silicon layer

Application of SC-simul for numerical modeling of the opto-electronic properties of heterojunction diodes

Characterization of amorphous silicon by secondary ion mass spectrometry

Observation of a hydrogen doublet site in high defect density as-grown a-Si:H by $^{1}\text{H}$ NMR

The nature of native and light induced defect states in i-layers of high quality a-Si:H solar cells derived from dark forward-bias current-voltage characteristics

The creation and annealing kinetics of fast light induced defect states created by 1 sun illumination in a-Si:H

Light-intensity dependence of the Staebler-Wronski effect in a-Si:H with various densities of defects

Effect of Fermi level position in intrinsic a-Si:H on the evolution of defect states under light exposure

Light-soaking effects on the open-circuit voltage of a-Si:H solar cells

The effects of hydrogen profiling and of light-induced degradation on the electronic properties of hydrogenated nanocrystalline silicon

Comparison of the effect of light soaking in porous silicon and a-Si:H

Optical properties of amorphous silicon-yttrium films

Stark splitting in photoluminescence spectra of Er in a-Si:H

Photoluminescence and electroluminescence properties of FeSi$_2$-Si structures formed by MEVVA implantation

Computer modelling of non-equilibrium multiple-trapping and hopping transport in amorphous semiconductors

Multiple-trapping model with Meyer-Neldel effect and field-dependent effects : time-of-flight simulations for a-Si:H

Transport and Meyer-Neldel rule in microcrystalline silicon films

Metastable changes in the photoconductive properties of microcrystalline silicon upon heat treatment

PECVD grown hydrogenated polymorphous silicon studied using current transient spectroscopies in PIN diodes

Influence of hydrogen plasma on electrical and optical properties of transparent conductive oxides
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved stability of hydrogenated amorphous silicon solar cells fabricated by triode-plasma CVD</td>
<td>551</td>
</tr>
<tr>
<td>Highly and rapidly stabilized protocrystalline silicon multilayer solar cells</td>
<td>561</td>
</tr>
<tr>
<td>High efficiency solar cells with intrinsic microcrystalline silicon absorbers deposited at high rates by VHF-PECVD</td>
<td>573</td>
</tr>
<tr>
<td>Characterization of the silicon-based thin film multi-junction solar cells</td>
<td>579</td>
</tr>
<tr>
<td>Temperature-dependent open-circuit voltage measurements and light-soaking in hydrogenated amorphous silicon solar cells</td>
<td>591</td>
</tr>
<tr>
<td>Use of transparent conductive oxide materials with low indices of refraction in amorphous silicon-based solar cell technology</td>
<td>597</td>
</tr>
<tr>
<td>Improved back reflector for high efficiency hydrogenated amorphous and nanocrystalline silicon based solar cells</td>
<td>603</td>
</tr>
<tr>
<td>Characterization of silicon thin film deposited by E-beam evaporator for flexible display</td>
<td>611</td>
</tr>
<tr>
<td>Low hydrogen concentration silicon nitride as a gate dielectric of TFTs for flexible display application</td>
<td>617</td>
</tr>
<tr>
<td>Electrolyte-gate a-Si:H thin film transistors</td>
<td>623</td>
</tr>
<tr>
<td>The hysteresis analysis of hydrogenated amorphous silicon thin film transistors for an active matrix organic light emitting diode</td>
<td>629</td>
</tr>
<tr>
<td>Active pixel TFT arrays for digital fluoroscopy in a-Si:H technology</td>
<td>635</td>
</tr>
<tr>
<td>High electron mobility (150 cm²/Vs) PECVD nanocrystalline silicon top-gate TFTs at 260°C</td>
<td>641</td>
</tr>
<tr>
<td>Gate oxide integrity for polysilicon thin-film transistors: a comparative study for ELC, MILC, and SPC crystallized active polysilicon layer</td>
<td>647</td>
</tr>
<tr>
<td>Threshold voltage optimization with ion shower implantation for polysilicon thin-film transistors</td>
<td>653</td>
</tr>
<tr>
<td>Low temperature metal-free fabrication of polycrystalline Si and Ge TFTs by PECVD hydrogenation</td>
<td>659</td>
</tr>
<tr>
<td>Effect of the hydrogen content in the optical properties and etching of silicon nitride films deposited by PECVD for uncooled microbolometers</td>
<td>667</td>
</tr>
<tr>
<td>Amorphous silicon based p-i-n-i structure for color sensor</td>
<td>673</td>
</tr>
<tr>
<td>Image and color sensitive detector based on double p-i-n/p-i-n a-Si:C:H photodiode</td>
<td>679</td>
</tr>
<tr>
<td>Effect of the load resistance in the linearity and sensitivity of MIS position sensitive detectors</td>
<td>685</td>
</tr>
<tr>
<td>Radiation hard amorphous silicon particle sensors</td>
<td>691</td>
</tr>
<tr>
<td>Two-dimensional a-Si:H/a-SiC:H n-i-p sensor array with ITO/a-SiN[substrat x] antireflection coating</td>
<td>697</td>
</tr>
<tr>
<td>Low temperature thin-film silicon diodes for consumer electronics</td>
<td>703</td>
</tr>
<tr>
<td>Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.</td>
<td>709</td>
</tr>
</tbody>
</table>