Semiconductor Nanowires. Woodhead Publishing Series in Electronic and Optical Materials

Description: Semiconductor nanowires promise to provide the building blocks for a new generation of nanoscale electronic and optoelectronic devices. Semiconductor Nanowires: Materials, Synthesis, Characterization and Applications covers advanced materials for nanowires, the growth and synthesis of semiconductor nanowires-including methods such as solution growth, MOVPE, MBE, and self-organization. Characterizing the properties of semiconductor nanowires is covered in chapters describing studies using TEM, SPM, and Raman scattering. Applications of semiconductor nanowires are discussed in chapters focusing on solar cells, battery electrodes, sensors, optoelectronics and biology.

- Explores a selection of advanced materials for semiconductor nanowires
- Outlines key techniques for the property assessment and characterization of semiconductor nanowires
- Covers a broad range of applications across a number of fields

Contents:

Part 1 Semiconductor materials for nanowires

- Group IV nanowires: Silicon/Germanium
- II-VI semiconductor nanowires: ZnO
- III-V semiconductor nanowires: chalcogenides (II-S, II-Se and II-Te)
- III-V semiconductor nanowires: arsenides (As-based III-As)
- III-V semiconductor nanowires: nitrides (N-based III-N)

Part 2 Growth and synthesis of semiconductor nanowires

- Epitaxial growth of semiconductor nanowire alloys and heterostructures
- Solution growth of semiconductor nanowires
- Metal-organic vapour phase epitaxy (MOVPE) growth of semiconductor nanowires
- Molecular beam epitaxy (MBE) growth of semiconductor nanowires
- Self-organized nanowire formation

Part 3 Characterizing the properties of semiconductor nanowires

- Quantum transport in semiconductor nanowires
- Measuring the properties of semiconductor nanowires with transmission electron microscopy (TEM)
- Electrical characterization of semiconductor nanowires by scanning probe microscopies (SPM)
- Using atom probe tomography in the study of semiconductor nanowires
- Optoelectronic properties of semiconductor nanowires
- Semiconductor nanowires studied by Raman scattering
- Scanning cathodoluminescence (CL) spectroscopy of nanowires
- Photoluminescence of semiconductor nanowires

Part 4 Applications of semiconductor nanowires

- Semiconductor nanowires for solar cells
- Semiconductor nanowire battery electrodes
- Semiconductor nanowires for sensors
- Nanowire for advanced optoelectronics
- Plasmonic nanowire networks: from waveguiding to passive and active nanoscale optical devices
- Nanowires for nano-electro-mechanical-systems (NEMS)
- Nanowires and their applications in biology

Ordering:

Order Online - http://www.researchandmarkets.com/reports/3084378/

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Semiconductor Nanowires. Woodhead Publishing Series in Electronic and Optical Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Address:</td>
<td><a href="http://www.researchandmarkets.com/reports/3084378/">http://www.researchandmarkets.com/reports/3084378/</a></td>
</tr>
<tr>
<td>Office Code:</td>
<td>SCPL900N</td>
</tr>
</tbody>
</table>

Product Format
Please select the product format and quantity you require:

- **Quantity**
  - Hard Copy (Hard Back): [ ]
  - USD 272 + USD 28 Shipping/Handling

* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in **BLOCK CAPITALS**

<table>
<thead>
<tr>
<th>Title:</th>
<th>Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td>__________________________</td>
</tr>
<tr>
<td>Email Address: *</td>
<td>__________________________</td>
</tr>
<tr>
<td>Job Title:</td>
<td>__________________________</td>
</tr>
<tr>
<td>Organisation:</td>
<td>__________________________</td>
</tr>
<tr>
<td>Address:</td>
<td>__________________________</td>
</tr>
<tr>
<td>City:</td>
<td>__________________________</td>
</tr>
<tr>
<td>Postal / Zip Code:</td>
<td>__________________________</td>
</tr>
<tr>
<td>Country:</td>
<td>__________________________</td>
</tr>
<tr>
<td>Phone Number:</td>
<td>__________________________</td>
</tr>
<tr>
<td>Fax Number:</td>
<td>__________________________</td>
</tr>
</tbody>
</table>

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:
Marketing Code: 

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World