CSAR 62 Spin Curve

Mohsen Azadi  
*Singh Center for Nanotechnology*, azadi@seas.upenn.edu

Georgia Griggs  
*Singh Center for Nanotechnology*, ggriggs@seas.upenn.edu

Glen de Villafranca  
*Singh Center for Nanotechnology*, devilla@seas.upenn.edu

Gerald Lopez  
*Singh Center for Nanotechnology*, lopezg@seas.upenn.edu

Follow this and additional works at: [https://repository.upenn.edu/scn_protocols](https://repository.upenn.edu/scn_protocols)

Part of the [Electronic Devices and Semiconductor Manufacturing Commons](https://repository.upenn.edu/scn_protocols), and the [Nanotechnology Fabrication Commons](https://repository.upenn.edu/scn_protocols).

Azadi, Mohsen; Griggs, Georgia; de Villafranca, Glen; and Lopez, Gerald, “CSAR 62 Spin Curve”, *Protocols and Reports*. Paper 48.  
[https://repository.upenn.edu/scn_protocols/48](https://repository.upenn.edu/scn_protocols/48)

This paper is posted at ScholarlyCommons. [https://repository.upenn.edu/scn_protocols/48](https://repository.upenn.edu/scn_protocols/48)
For more information, please contact repository@pobox.upenn.edu.
CSAR 62 Spin Curve

Keywords
CSAR, CSAR 62, Spin Curve, Curve, Spin

Disciplines
Electronic Devices and Semiconductor Manufacturing | Nanotechnology Fabrication
Goal:
This report documents the spin curves for CSAR 62 electron beam lithography resist from AllResist. The aim is to provide a self-generated spin curve for CSAR 62.

Materials:
- CSAR 62 from AllResist (www.allresist.com)
- Anisole
- Si wafers
- Two 80mL beakers
- One amber bottle

Equipment:
- ReynoldsTech Spinner
- Torrey Pines Scientific Hotplate
- Filmetrics F50
- Digital Scale to measure dilutions

Protocol:
Coat
1. Mount wafer and ensure that it is centered.
2. Spin wafer at a fixed RPM for 60 seconds.

Soft Bake
1. Bake wafer at 180 °C for 90 seconds and allow wafer to cool after removal.

Measurement
1. Allow the Filmetrics F50 light to warm up for at least 5 minutes.
2. Click Baseline… to calibrate the tool using the SiO₂ and Si standards.
3. Mount wafer and select the CSAR on Si recipe.
4. Edit the recipe so that 85 points are measured on the wafer with a 1 cm edge exclusion.
5. Click Start to measure the resist thickness of each wafer.

Results:

<table>
<thead>
<tr>
<th>RPMs</th>
<th>Resist Thickness (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>386.3</td>
</tr>
<tr>
<td>2000</td>
<td>278.6</td>
</tr>
<tr>
<td>3000</td>
<td>229.7</td>
</tr>
<tr>
<td>4000</td>
<td>201.4</td>
</tr>
<tr>
<td>5000</td>
<td>177.1</td>
</tr>
<tr>
<td>6000</td>
<td>161.6</td>
</tr>
</tbody>
</table>