

Materials List for:

Using Neutron Spin Echo Resolved Grazing Incidence Scattering to Investigate Organic Solar Cell Materials

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Materials

| Name | Company | Catalog Number | Comments |
|--|--|---------------------------------|---|
| Silicon 2 in silicon substrates | Prolog | | 4 mm thick polished one side |
| Oxygen plasma | Diener | | Oxygen plasma cleaning system to clean substrates prior to coating |
| Poly(3,4-ethylenedioxythiophene): poly(styrenesulfonate) | Ossila | | PEDOT:PSS conductive polymer layer for organic photovoltaic samples |
| 0.45 µm PTFE filter | Sigma Aldrich | | Filter to remove aggregates from PEDOT:PSS and P3HT solutions |
| Chlorobenzene | Sigma Aldrich | | Solvent for P3HT |
| Poly(3-hexylthiophene-2,5-diyl) | Ossila | | P3HT - polymer used in polymer photovoltaics |
| Spin Coater | Laurell | | Deposition system for making flat thin polymer films |
| Vacuum Oven | Binder | | Oven for annealing samples after preparation |
| Nikon Eclipse E600 optical microscope | Nikon | | Microscope |
| Veeco Dimension 3100 AFM | Veeco | | AFM |
| Tapping mode tips (~275 kHz) | Olympus | | AFM tips |
| Quartz Disc | | | Reference samples for SERGIS measurement |
| Spin Echo off-specular reflectometer | OffSpec at the ISIS Pulsed Neutron and Muon Source (Oxfordshire, UK) | Produces pulsed neutrons 2-14 Å | |
| Neutron Detector | Offspec | | vertically oriented linear scintillator detector |
| RF spin flippers | Offspec | | |
| Magnetic Field Guides | Offspec | | |
| Data Manipulation Software | Mantid | | http://www.mantidproject.org/Main_Page |