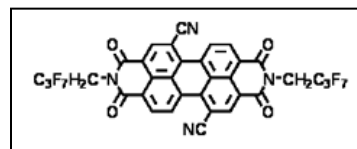


ActivInk™ N1100



Materials Properties

| | |
|-------------------------------|-----------------------------|
| Chemical Structure: | PDIF-CN2 |
| Physical Form: | Red crystalline solid |
| Purity: | > 99.5% |
| Melting Point: | 302°C |
| Solubility: | Chloroform, dichlorobenzene |
| Crystallization Motif: | Slipped-stacked |
| Can Publish Results: | Yes |



Electronic Properties

| | |
|--|-------------------|
| Optical Absorption (λ max.): | 527 nm |
| HOMO / LUMO (by CV.): | 6.6 / 4.5 |
| Abs. Coefficient: | 1.0×10^5 |
| Bandgap: | 2.1 eV |

Typical Device Data

Carrier Mobility:

| Deposition Method | Mobility | Device Stack |
|-------------------|-----------------------------------|---|
| Vapor | 0.3 – 0.6 cm^2/Vs | TCBG Si / SiO_2 -HMDS / Au / $L=50\mu\text{m}$ |
| Spin-Coat | 0.1 – 0.2 cm^2/Vs | TCBG Si / SiO_2 -HMDS or -OTS / Au / $L=50\mu\text{m}$ |

| | |
|-------------------------------------|--------------------------------|
| Turn-on Voltage: | -30 – -10 V |
| On/Off Ratio: | $1.0 \times 10^{3-4}$ |
| Device Shelf Life: | Excellent |
| Recommended Contact Type(s): | Au, but will work with others. |

FET Transfer Characteristic

Spin-Coat

