

ActivInk™ N1500



Structure
Confidential

Materials Properties

Chemical Structure:	Confidential
Physical Form:	Red crystalline solid
Purity:	> 99.5%
Melting Point:	Confidential
Solubility:	Confidential
Can Publish Results:	No

Electronic Properties

Optical Absorption (λ max.):	Confidential
HOMO / LUMO (by CV.):	Confidential
Abs. Coefficient:	Confidential
Bandgap:	Confidential

Typical Device Data

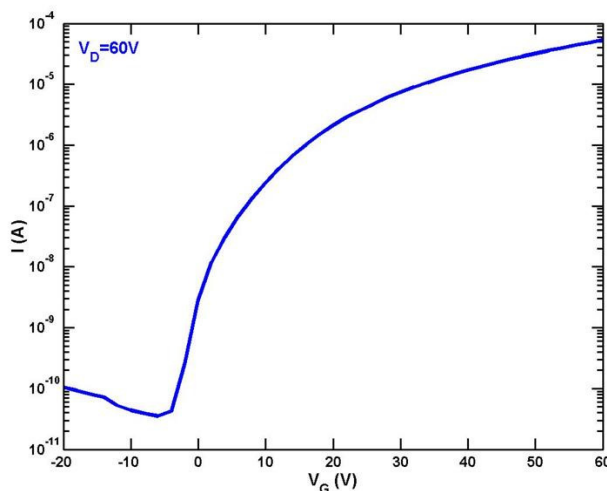
Carrier Mobility:

Deposition Method	Mobility	Device Stack
Vapor	0.5 – 1.0 cm^2/Vs	TCBG Si / SiO ₂ -HMDS / Au / L=50 μm
Spin-coat	1.0 – 1.5 cm^2/Vs	BCTG Glass(PET) / Au / dielec. / Au / L=50 μm
Inkjet	Up to 1.0 cm^2/Vs	BCTG Glass(PET) / Au / dielec. / Au / L=50 μm

Turn-on Voltage:	-5 – 0 V
On/Off Ratio:	$1.0 \times 10^{5-7}$
Device Shelf Life:	Excellent
Operating Lifetime:	Confidential
Recommended Contact Type(s):	Au, but will work with others.
Stability:	Excellent stability in ambient conditions
Handling:	Stable in ambient conditions. Store in dark bottles.

FET Transfer Characteristic

Inkjet



* Pulse bias stress is measured by holding $V_{sd} = 40\text{V}$, and cycle V_{gs} from -40V to +40V at 1Hz. Operational lifetime is quoted as the number of cycles at which $I_{on, t} = .70 * I_{on, t=0}$