

## List of Abbreviations

<i>Abbreviation</i>	<i>Full form</i>
Ag	Silver
ALD	Atomic layer deposition
Al <sub>2</sub> O <sub>3</sub>	Aluminiumdioxide
AlO <sub>x</sub>	Aluminium oxide
AMLCD	Active-Matrix Liquid-Crystal Display
AMOLED	Active-Matrix Organic Light-Emitting Diode
Au	Gold
a-Si	Amorphous silicon
a-Si:H	Hydrogenated amorphous silicon
C <sub>10</sub> -DNNT	2,9-didecyl-DNNT
C <sub>13</sub> -BTBT	2-tridecyl[1]benzothieno[3,2-b][1]-benzothiophene
CB	Conduction band
Cr	Chromium
Cu	Copper
CVD	Chemical vapor deposition
DCM	Displacement current measurement
DNNT	Dinaphtho[2,3-b:2',3'-f]thieno[3,2-b]thiophene
DPh-DNNT	2,9-diphenyl-DNNT
DOS	Density of states
E <sub>c</sub>	Conduction band energy
E <sub>F</sub>	Fermi energy level
E <sub>v</sub>	Valence band energy
FET	Field-effect transistor
F <sub>16</sub> CuPc	Hexadecafluorocopperphthalocyanine
HfO <sub>2</sub>	Hafniumdioxide
HC14-PA	<i>n</i> -tetradecylphosphonic acid
HOMO	Highest occupied molecular orbital
ICs	Integrated circuits
IMEC	Interuniversity Microelectronics Centre
LCC	Long channel capacitor
LUMO	Lowest unoccupied molecular orbital
MOS	Metal-oxide-semiconductor
MOSFET	Metal-oxide-semiconductor field-effect transistor
MTR	Multiple trapping and release
NTCDI	N,N'-bis-(heptafluorobutyl)-2,6-dichloro-1,4,5,8-naphthalenetetra-carboxylic diimide
n <sup>+</sup>	Heavily doped by n-type impurities
ODTS	Octadecyltrichlorosilane
OLED	Organic light emitting diode
OTS	Octadecyltrichlorosilane
P3HT	Poly(3-hexylthiophene)
PDVT-10	Poly[2,5-bis(alkyl)pyrrolo[3,4-c]pyrrole-1,4(2H,5H)-dione-alt-5,5'-di(thiophen-2-yl)-2,2'-(E)-2-(2-(thiophen-2-yl)vinyl)thiophene]
Pd	Palladium
PEN	Polyethylene naphthalate
PET	Polyethylene terephthalate
PMMA	Poly(methylmethacrylate)
PVP	Polyvinylphenol

poly-Si	Polycrystalline silicon
R <sub>F</sub>	Feedback resistor
RFID	Radio frequency identification
RT	Room temperature
SAM	Self-assembled monolayer
Si	Silicon
SiO <sub>2</sub>	Silicondioxide
Si <sub>3</sub> N <sub>4</sub>	Silicon nitride
SMU	Source measurement unit
SnO <sub>2</sub>	Tin dioxide
T1	Driving TFT 1
T2	Transistor 2
T3	Transistor 3
TFTs	Thin-film transistors
Ti	Titanium
TNO	Toegepast Natuurwetenschappelijk Onderzoek
VB	Valence band
VRH	Variable range hopping

