

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number
WO 2005/093870 A1

(51) International Patent Classification⁷: **H01L 51/30**,
G11C 11/22, H01L 33/00

33, S-582 16 Linköping (SE). **ANDERSSON, Linda**
[SE/SE]; Nygatan 43B, S-582 27 Linköping (SE).

(21) International Application Number:
PCT/NO2005/000101

(74) Common Representative: **THIN FILM ELECTRON-
ICS ASA**; LEISTAD, Geirr, I., P.O. Box 1872 Vika,
N-0124 Oslo (NO).

(22) International Filing Date: 21 March 2005 (21.03.2005)

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20041276 26 March 2004 (26.03.2004) NO

(71) Applicant (for all designated States except US): **THIN
FILM ELECTRONICS ASA** [NO/NO]; P.O. Box 1872
Vika, N-0124 Oslo (NO).

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

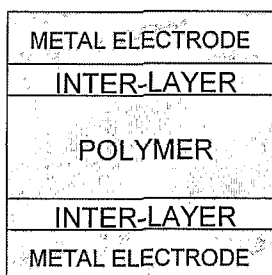
(75) Inventors/Applicants (for US only): **SANDBERG,
Mats** [SE/SE]; Valla Södergård, S-58439 Linköping
(SE). **NORDAL, Per-Erik** [NO/NO]; Båstadryggen
19, N-1387 Asker (NO). **GRECZYNSKI, Grzegorz**
[PL/SE]; Rydsvägen 408B, S-58439 Linköping (SE).
JOHANSSON, Mats [SE/SE]; Fanjunkaregatan 49,
S-58216 Linköping (SE). **CARLSEN, Per** [DK/NO];
Bautaveien 4, N-7652 Hundhamaren (NO). **GUDESEN,
Hans, Gude** [NO/BE]; 17, rue Fulton, B-1000 Brussels
(BE). **GUSTAFSSON, Göran** [SE/SE]; Trumslagaregatan

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: AN ORGANIC ELECTRONIC DEVICE AND METHODS FOR MANUFACTURING A DEVICE OF THIS KIND



(57) Abstract: An organic electronic device consists of one or more electro-active organic or polymer materials sandwiched between electrodes. Critical in such devices is the interface between the electrode and the polymer, where degradation or chemical reaction products may develop that are deleterious to the proper functioning of the device. This is solved by introducing a functional interlayer composed of one or more materials consisting of a molecular backbone bearing phosphonate or phosphate functions, either directly attached or through side chains, said functional layer being disposed between at least one of the respective electrodes and said one or more electro-active materials in the device.

WO 2005/093870 A1