

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 July 2009 (09.07.2009)

PCT

(10) International Publication Number
WO 2009/084966 A1

- (51) International Patent Classification:
C23C 16/40 (2006.01) H01M 10/04 (2006.01)
C23C 16/455 (2006.01) H01M 4/04 (2006.01)
- (21) International Application Number:
PCT/NO2008/000468
- (22) International Filing Date:
23 December 2008 (23.12.2008)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
2007 6696 28 December 2007 (28.12.2007) NO
- (71) Applicant (for all designated States except US): UNIVER-
SITETET I OSLO [NO/NO]; P.O. Box 1072, Blindern,
N-0316 Oslo (NO).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): NILSEN, Ola
[NO/NO]; Høyenhallsvingen 21A, N-0667 Oslo (NO).
FJELLVÅG, Helmer [NO/NO]; Siriusveien 15, N-0492
Oslo (NO). ALNES, Mari, Endresen [NO/NO];
Trimveien 6, H0102, N-0372 Oslo (NO). AALTO-
NEN, Titta [NO/NO]; Munkedamsveien 81 D, N-0270
Oslo (NO).

- (74) Agent: ZACCO NORWAY AS; P.O. Box 2003, Vika,
N-0125 Oslo (NO).
- (81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE,
EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID,
IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK,
LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW,
MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.
- (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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL,
NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG,
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report



WO 2009/084966 A1

(54) Title: FORMATION OF A LITHIUM COMPRISING STRUCTURE ON A SUBSTRATE BY ALD

(57) Abstract: The present invention discloses a method for the formation of lithium comprising layer on a substrate using an atomic layer deposition method. The method comprises the sequential pulsing of a lithium precursor through a reaction chamber for deposition upon a substrate. Using further oxidising pulses and or other metal containing precursor pulses, an electrolyte suitable for use in thin film batteries may be manufactured.