IN THE CLAIMS

1. (Original) A method for formation of a Li-comprising layer on a substrate by atomic layer deposition comprising the following steps:

a) providing a substrate in a reaction chamber wherein said reaction chamber is arranged for gas-to-surface reactions,

b) pulsing a lithium precursor through said reaction chamber,

c) reacting said lithium precursor with at least one surface of said substrate,

d) purging of said reaction chamber

d1) by sending a purge gas through said reaction chamber for the purging of the reaction chamber or

d2) by evacuating said chamber, and

e) repeating steps b) to d) a desired number of times in order for the formation of a thin film layer of a lithium comprising material upon said at least one surface of said substrate.

2. (Original) A method according to claim 1, wherein steps b) through d) are repeated with independently chosen lithium precursors in step b).

3. (Original) A method according to claim 1, wherein an oxidising gas is pulsed through said reaction chamber such that the resulting deposition sequence comprises:

a) providing a substrate in a reaction chamber wherein said reaction chamber is arranged for gas-to-surface reactions,

b) pulsing a lithium precursor through said reaction chamber,

c) reacting said lithium precursor with at least one surface of the substrate,

d) purging of said reaction chamber,

e) pulsing an oxygen precursor through said reaction chamber,

f) reacting said oxygen precursor with said at least one surface of said substrate,

g) purging of said reaction chamber,

h) repeating steps b) to

g) a desired number of times in order for the formation of a thin film layer of a lithium comprising material upon said at least one surface of said substrate, where the purging of said chamber may be performed by sending a purge gas through said reaction chamber for the purging of the reaction chamber or by evacuating said chamber.

4. (Original) A method according claim 3, wherein further to the described steps, a lanthanum comprising precursor is pulsed through the reaction chamber such that the reaction resulting sequence comprises:

a) providing a substrate in a reaction chamber wherein said reaction chamber is arranged for gas-to-surface reactions,

b) pulsing a lanthanum precursor through said reaction chamber,

c) reacting said lanthanum precursor with said at least one surface of said substrate,

d) purging of said reaction chamber,

e) pulsing an oxygen precursor through said reaction chamber,

f) reacting said oxygen precursor with said at least one surface of said substrate,

g) purging of said reaction chamber,

h) pulsing a lithium precursor through said reaction chamber,

i) reacting said lithium precursor with a surface layer of the substrate,

j) purging of said reaction chamber,

k) pulsing an oxygen precursor through said reaction chamber,

1) reacting said oxygen precursor with said at least one surface of said substrate,

m) purging of said reaction chamber,

n) repeating steps b) to m) a desired number of times in order for the formation of a thin film layer of a lithium and lanthanum comprising material upon said at least one surface of said substrate,

where the purging of said chamber may be performed by sending a purge gas through said reaction chamber for the purging of the reaction chamber or by evacuating said chamber.

5. (Original) A method according claim 4, wherein further to the described steps, a titanium comprising precursor is pulsed through the reaction chamber such that the reaction resulting sequence comprises:

a) providing a substrate in a reaction chamber wherein said reaction chamber is arranged for gas-to-surface reactions,

b) pulsing a lanthanum precursor through said reaction chamber,

c) reacting said lanthanum precursor with said at least one surface of said substrate,

d) purging of said reaction chamber,

e) pulsing an oxygen precursor through said reaction chamber,

f) reacting said oxygen precursor with said at least one surface of said substrate,

g) purging of said reaction chamber,

h) pulsing a lithium precursor through said reaction chamber,

i) reacting said lithium precursor with a surface layer of the substrate,

j) purging of said reaction chamber,

k) pulsing an oxygen precursor through said reaction chamber,

1) reacting said oxygen precursor with said at least one surface of said substrate,

m) purging of said reaction chamber,

n) pulsing a titanium precursor through said reaction chamber,

o) reacting said titanium precursor with said at least one surface of said substrate,

p) purging of said reaction chamber,

q) pulsing an oxygen precursor through said reaction chamber,

r) reacting said oxygen precursor with said at least one surface of said substrate,

s) purging of said reaction chamber,

t) repeating steps b) to s) a desired number of times in order for the formation of a thin film layer of a lithium, lanthanum and titanium comprising material upon said at least one surface of said substrate,

where the purging of said chamber may be performed by sending a purge gas through said reaction chamber for the purging of the reaction chamber or by evacuating said chamber.

6. (Currently Amended) A method according to ~~any one of the previous claims~~ claim 1, wherein each step of the process is independently repeated a desired number of times.

7. (Original) A method according claim 6, where the groups of steps b)-g), f)-m) and n)-s) respectively are independently repeated one or more times before continuing the sequence.

8. (Currently Amended) A method according to ~~any one of the preceding claims~~ claim 1, where the thin film layer is an oxide or a carbonate layer or a mixture thereof.

9. (Currently Amended) A method according claim 5, ~~6, 7 or 8~~ for the production of a La- Li -Ti-O layered thin film.

10. (Currently Amended) A method according to ~~any one of the above claims~~ claim 1, wherein the lithium precursor is chosen from a metal-organic compound such as lithium 2,2,6,6-tetramethylheptane-3,5- dionate, a lithium alkoxide or a lithium alkyl.

11. (Currently Amended) A method according to ~~any one of the above claims~~ claim 1, wherein the lithium precursor is a bimetallic compound such as Ti-Li compounds.

12. (Currently Amended) A method according to ~~any of the above claims~~ claim 1, for the production of a lithium- comprising thin film battery.

13. (Currently Amended) A method according to ~~any of the above claims~~ claim 1, for the production of a lithium- comprising electrolyte thin film for use in a battery.