This listing of claims reflects the presently pending claims and is provided as a courtesy; no amendments are sought to be made at this time.

Listing of Claims:

1. (Previously Presented) 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

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,

wherein the lithium precursor is selected from among lithium 2,2,6,6-tetramethylheptane-3,5-dionate, lithium alkoxides, lithium alkyls, cyclic lithium

compounds, lithium dicyclohexamide, and bimetallic or multimetallic compounds.

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

3. (Previously presented) A method according to claim 1, further comprising the following steps:

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, 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, 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.

4. (Previously Presented) 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 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,

l) 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. (Previously Presented) 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 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,

l) 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. (Original)A method according to claim 1, wherein each step of the process is independently repeated a desired number of times.

7. (Previously Presented) A method according to claim 3, where the steps b)-g) are independently repeated one or more times before continuing the sequence.

8. (Original)A method according to claim 1, where the thin film layer is an oxide or a carbonate layer or a mixture thereof.

9. (Original)A method according to claim 5 for the production of a La-Li-Ti-O layered thin film.

10-11. (Cancelled)

12. (Original) A method according to claim 1 for the production of a lithium-comprising thin film battery.

13. (Original) A method according to claim 1 for the production of a lithium-comprising electrolyte thin film for use in a battery.

14. (Previously presented) A method according to claim 4, wherein the lithium precursor is selected from among lithium 2,2,6,6-tetramethylheptane-3,5-dionate, lithium alkoxides, lithium alkyls, cyclic lithium compounds, lithium dicyclohexamide, and bimetallic or multimetallic compounds.

15. (Previously presented) A method according to claim 14, wherein each step of the process is independently repeated a desired number of times.

16. (Previously presented) A method according to claim 14, where the groups of steps b)-g) and f)-m) respectively are independently repeated one or more times before continuing the sequence.

17. (Previously presented) A method according to claim 14, where the thin film layer is an oxide or a carbonate layer or a mixture thereof.

18. (Previously presented) A method according to claim 14 for the production of a lithium-comprising thin film battery.

19. (Previously presented) A method according to claim 14 for the production of a lithium-comprising electrolyte thin film for use in a battery.

20. (Previously presented) A method according to claim 5, wherein the lithium precursor is selected from among lithium 2,2,6,6-tetramethylheptane-3,5-dionate, lithium alkoxides, lithium alkyls, cyclic lithium compounds, lithium dicyclohexamide, and bimetallic or multimetallic compounds.

21. (Previously presented) A method according to claim 20, wherein each step of the process is independently repeated a desired number of times.

22. (Previously presented) A method according to claim 20, where the groups of steps b)-g), f)-m) and n)-s) respectively are independently repeated one or more times before continuing the sequence.

23. (Previously presented) A method according to claim 20, where the thin film layer is an oxide or a carbonate layer or a mixture thereof.

24. (Previously presented) A method according to claim 20 for the production of a lithium-comprising thin film battery.

25. (Previously presented) A method according to claim 20 for the production of a lithium-comprising electrolyte thin film for use in a battery.