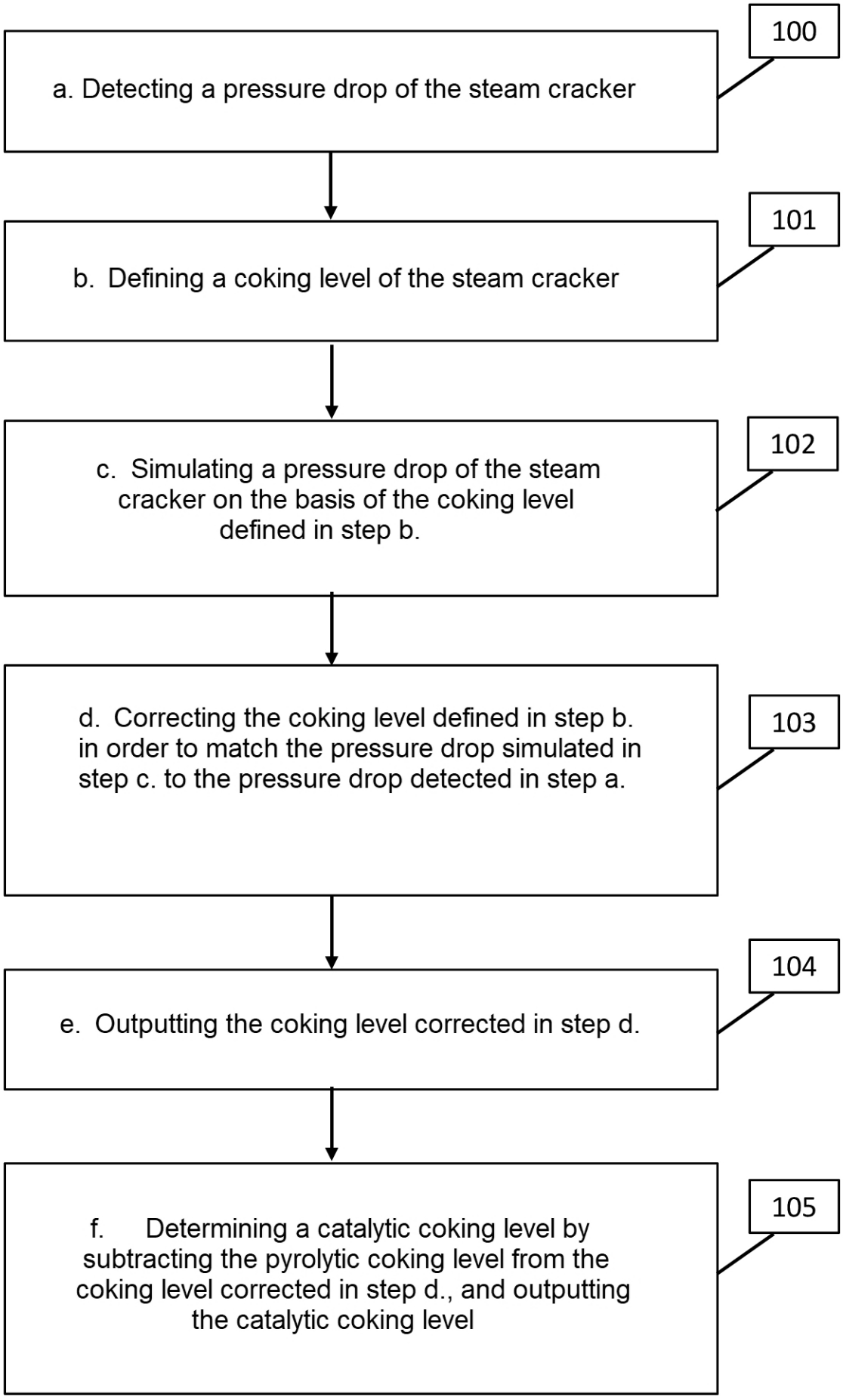

a. Detecting a pressure drop of the steam cracker
100
b. Defining a coking level of the steam cracker
101
c. Simulating a pressure drop of the steam cracker on the basis of the coking level defined in step b.
102
d. Correcting the coking level defined in step b. in order to match the pressure drop simulated in step c. to the pressure drop detected in step a.
103
e. Outputting the coking level corrected in step d.
104
f. Determining a catalytic coking level by subtracting the pyrolytic coking level from the coking level corrected in step d., and outputting the catalytic coking level
105

Fig. 1

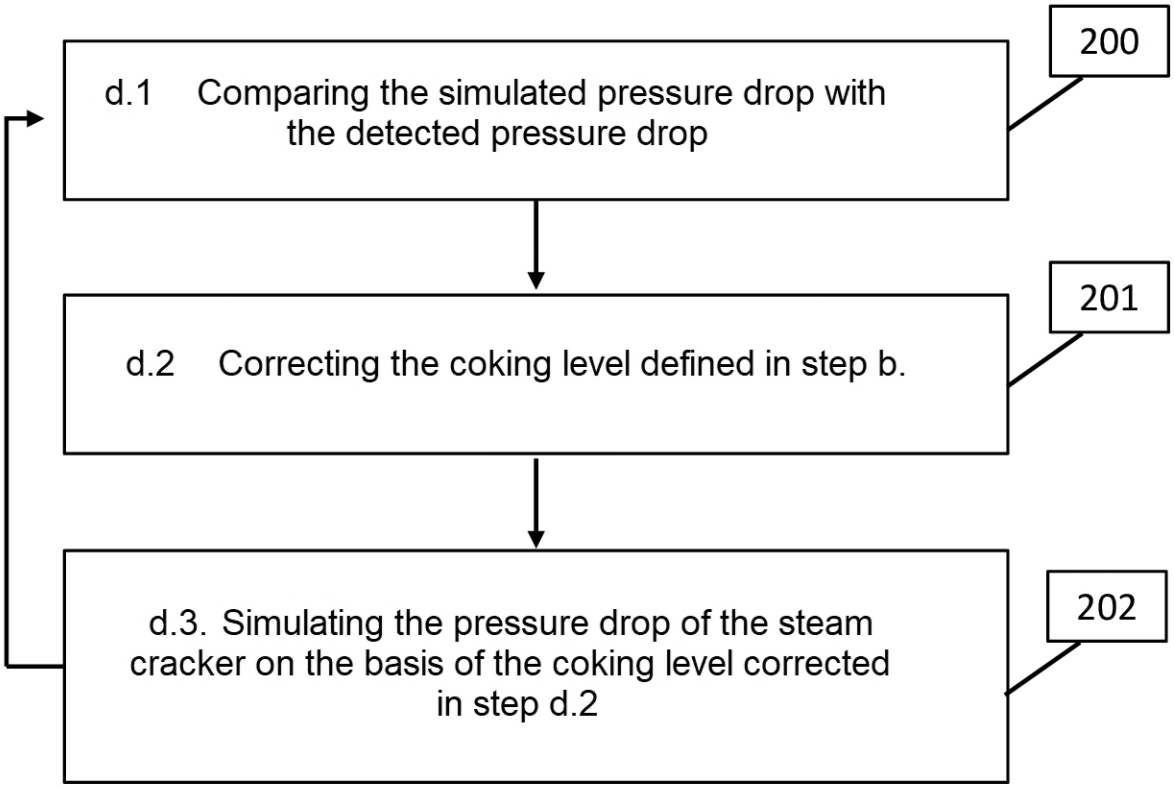

d.1 Comparing the simulated pressure drop with the detected pressure drop
200
d.2 Correcting the coking level defined in step b.
201
d.3. Simulating the pressure drop of the steam cracker on the basis of the coking level corrected in step d.2
202

Fig. 2

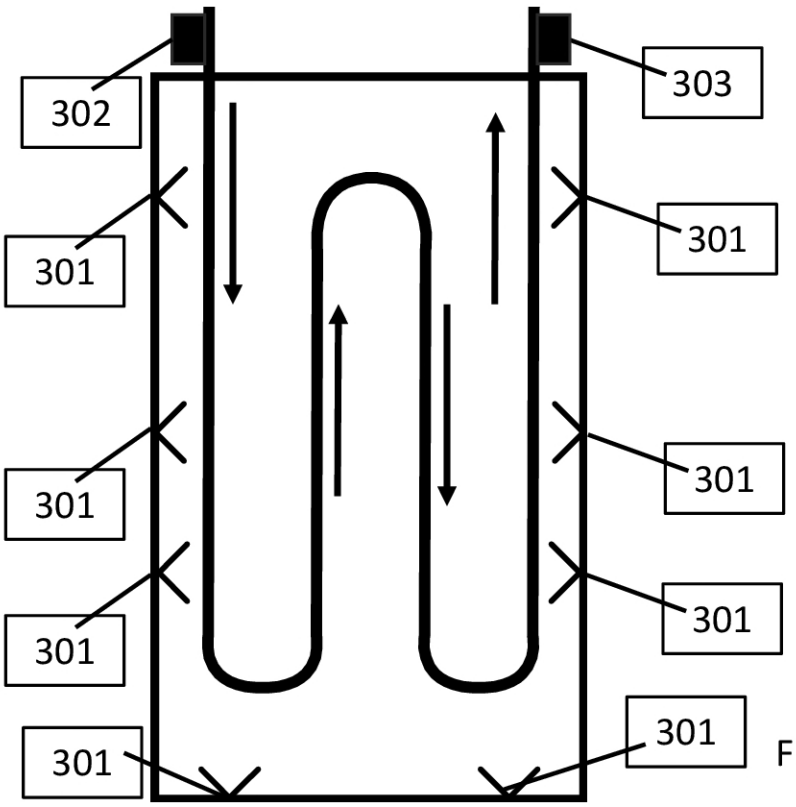

302
303
301
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Fig. 3

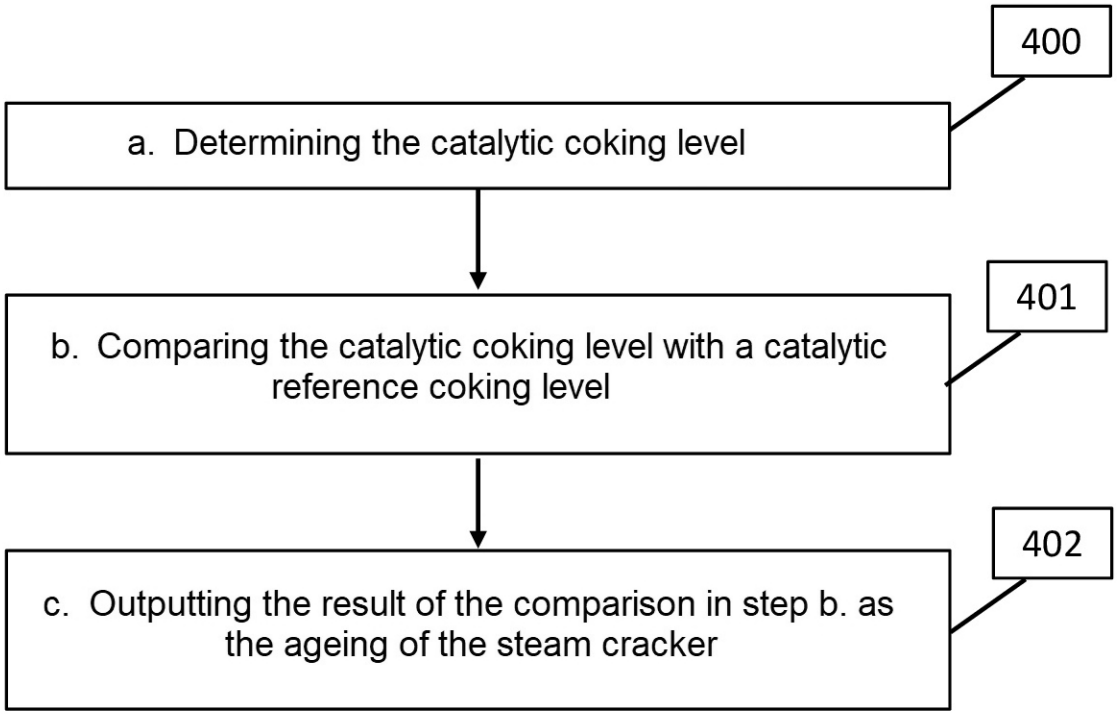

400
a. Determining the catalytic coking level
401
b. Comparing the catalytic coking level with a catalytic reference coking level
402
c. Outputting the result of the comparison in step b. as the ageing of the steam cracker

Fig. 4

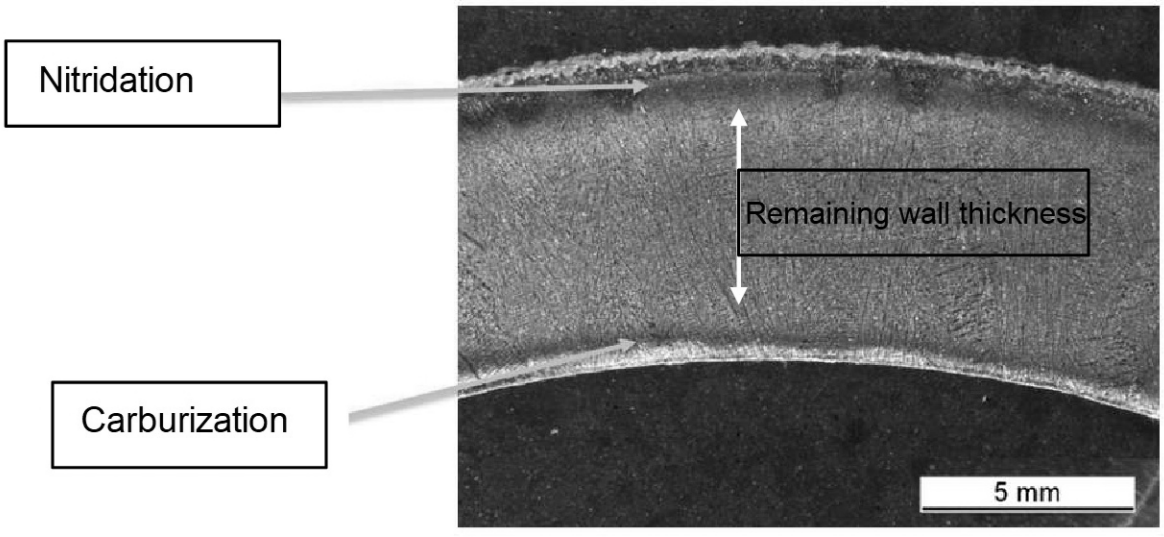

Nitridation
Remaining wall thickness
Carburization
5 mm

Fig. 5

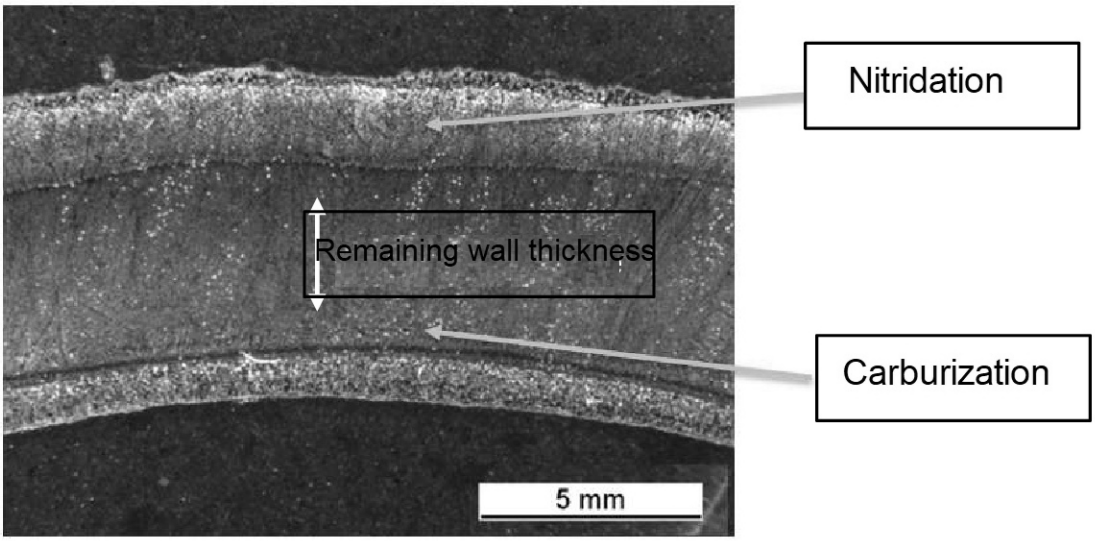

Nitridation
Remaining wall thickness
Carburization
5 mm

Fig. 6

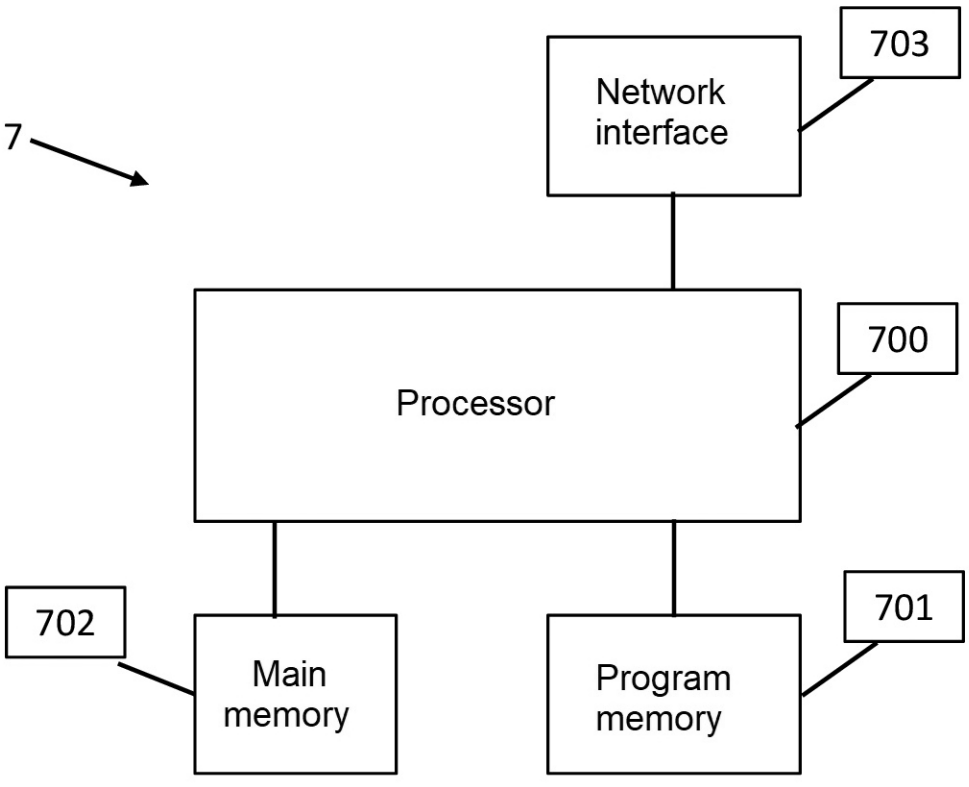

7
Network interface
703
Processor
700
702
Main memory
Program memory
701

Fig. 7