

CLAIMS

1. A method of optimising operating conditions in an abatement apparatus configured to treat an effluent stream from a semiconductor processing tool, said
5 method comprising:
determining a concentration of carbon monoxide produced by said
abatement apparatus when treating said effluent stream; and
adjusting an operating parameter of said abatement apparatus in response
to said concentration of carbon monoxide.
- 10 2. The method of claim 1, wherein said determining comprises measuring
said concentration of carbon monoxide present in an exhaust of said abatement
apparatus.
- 15 3. The method of claim 1 or 2, wherein said determining comprises
measuring said concentration of carbon monoxide with an infrared spectrometer.
4. The method of any preceding claim, wherein said operating parameter
comprises a fuel/oxidant ratio.
- 20 5. The method of any preceding claim, wherein said adjusting comprises
changing said fuel/oxidant ratio to decrease said concentration of carbon
monoxide.
- 25 6. The method of any preceding claim, wherein said adjusting comprises
determining whether changing said fuel/oxidant ratio decreases said
concentration of carbon monoxide and, if so, retaining that change.
- 30 7. The method of any preceding claim, wherein said adjusting comprises
determining whether changing said fuel/oxidant ratio increases said concentration
of carbon monoxide and, if so, reversing that change.

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8. The method of any preceding claim, wherein said adjusting comprises varying a supply of said oxidant.

9. The method of any preceding claim, wherein said adjusting comprises
5 increasing said supply of oxidant, determining whether said concentration of carbon monoxide increases and, if so, decreasing said supply of oxidant.

10. The method of any preceding claim, wherein said adjusting comprises decreasing said supply of oxidant, determining whether said concentration of
10 carbon monoxide increases and, if so, increasing said supply of oxidant.

11. The method of any preceding claim, wherein said adjusting comprises determining whether changing said fuel/oxidant ratio decreases said concentration of carbon monoxide towards a threshold amount and, if so,
15 retaining that change.

12. The method of any preceding claim, wherein said adjusting comprises determining whether changing said fuel/oxidant ratio decreases said concentration of carbon monoxide below a threshold amount and, if so, reversing
20 that change.

13. The method of any preceding claim, wherein said adjusting comprises varying a supply of said fuel.

25 14. The method of any preceding claim, wherein said adjusting comprises determining whether said concentration of carbon monoxide is above said threshold amount and, if so, decreasing said supply of said fuel.

15. The method of any preceding claim, wherein said adjusting comprises
30 determining whether said concentration of carbon monoxide is below said threshold amount and, if so, increasing said supply of said fuel.

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16. An apparatus for optimising/adjusting operating conditions in an abatement apparatus configured to treat an effluent stream from a semiconductor processing tool, said apparatus comprising:

- a sensor configured to determine a concentration of carbon monoxide
- 5 produced by said abatement apparatus when treating said effluent stream; and
- a controller operable to adjust an operating parameter of said abatement apparatus in response to said concentration of carbon monoxide.