CLAIMS

1. A method for roasting coffee beans with a roasting apparatus (10) said roasting apparatus being positioned in a room and said roasting apparatus comprising :

- a roasting device (1), and
- a smoke treating unit (3) comprising a contaminants treating device (32) configured to treat the smoke (12) produced in the roasting device and to prevent the dispense of air contaminants, including coffee aromas, in the room,

said roasting method comprising the step of introducing coffee beans (8) in the roasting device and the step of heating said coffee beans during a time, and

wherein a part of the whole quantity of smoke produced during the time of the step of heating is dispensed in the room without being treated by said contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room.

2. ~~A~~The method according to Claim 1, wherein the contaminants treating device (32) configured to prevent the dispense of air contaminants, including coffee aromas, in the room, is an afterburner or a catalytic converter or a device that diverts contaminants away from the room or a filter configured to trap coffee aromas.

3. ~~A~~The method according to Claim 1 or 2, wherein during a part of the time of the step of heating, at least a part of the smoke produced in the roasting device is dispensed in the room without being treated by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room.

4. ~~A~~The method according to Claim 3, wherein, during a sub-step of the step of heating, coffee aromas are produced, and during said sub-step, at least a part of the smoke produced in the roasting device is dispensed in the room without being treated by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room.

5. ~~A~~The method according to any one of Claims 3 or 4, wherein the step of heating coffee beans during a time consists in one first period of time and one second period of time, and wherein :

- during at least a part of the first period of time, at least a part of the smoke produced in the roasting device is dispensed in the room without being treated by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room,

and

- during the second period of time, at least a part of the smoke is treated by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room.

6. ~~A~~The method according to Claim 5, wherein the second period of time of the step of heating happens after the first crack of the coffee beans.

7. ~~A~~The method according to Claim 1 or 2, wherein during the time of the step of heating, one first part of the smoke produced in the roasting device is dispensed in the room without being treated by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room and one second complementary part of the smoke produced in the roasting device is treated by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room.

8. ~~A~~The method according to any one of the precedent claims, wherein the roasting apparatus (10) comprises :

- a smoke collecting device (2) connected to the roasting device and configured to collect smoke produced in the roasting device, and
- a smoke diverting device (31) positioned between the smoke collecting device and the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room, said smoke diverting device being configured to divert at least a part of the smoke collected by the smoke collecting device away from the contaminants treating device configured to prevent the dispense of coffee aromas in the room and directly to the outside of the roasting apparatus.

9. ~~A~~The method according to any one of the precedent claims, wherein :

- the roasting device comprises an air contaminants level monitoring unit configured for measuring the level of contaminants in the smoke, and
- during the step of heating :
  . the level of contaminants in the produced smoke is measured and compared to a threshold value, and
  . the treatment of the smoke by the smoke treatment unit is controlled based on this comparison.

10. ~~A~~The method according to any one of the precedent claims, wherein the coffee beans introduced in the roasting device are partially pre-roasted beans, said partially pre-roasted

beans having been obtained by heating green coffee beans and stopping said heating process before the end of the first crack.

11. ~~A~~The method according to any one of the precedent claims, wherein :
- the roasting device comprises a coffee beans identification device configured for identifying properties of the coffee beans introduced in the roasting device, and
- the roasting method comprises the step of :
• identifying the coffee beans introduced in the roasting device in order to determine directly or indirectly :
. the heating profile to be applied, and
. the level of air contaminants produced in the course of said heating profile or the smoke treatment to be applied, and
• heating said coffee beans according to the determined heating profile and dispensing a part of the smoke produced in the roasting device in the room without treatment by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room based on the determined level of air contaminants produced in the course of said heating profile or based on the determined smoke treatment.

12. Apparatus (10) for roasting coffee beans in a room, said device comprising :
- a roasting device (1), and
- a smoke collecting device (2) configured to collect smoke produced in the roasting device, and
- a smoke treating unit (3) comprising a contaminants treating device (32) configured to treat the smoke produced in the roasting device (1) and to prevent the dispense of air contaminants, including coffee aromas, in the room,
- a controller (4) arranged to control said roasting device (1) and said smoke treating unit (3), wherein the controller is adapted to dispense in the room a part of the whole quantity of smoke produced during the time of the step of heating without having this smoke treated by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room

13. ~~An~~The apparatus according to 12, wherein the smoke treating unit (3) comprises :
- a contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room, and
- a smoke diverting device (31) positioned upstream the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room, said smoke diverting device being configured to divert a part of the smoke collected by the smoke collecting

device (2) away from the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room and directly to the outside of the roasting apparatus.

14. ~~An~~The apparatus according to the precedent claim, wherein the smoke diverting device (31) comprises a valve device and the controller (4) is arranged to control the valve device (6) to dispense in the room a part of the whole quantity of smoke produced during the time of the step of roasting without having this smoke treated by the contaminants treating device configured to prevent the dispense of coffee aromas in the room.

15. ~~An~~The apparatus according to the precedent claim, wherein the smoke diverting device (31) comprises a bypass duct (31) and a valve device (311).

16. ~~An~~The apparatus according to any one of Claims 12 to 15**,** wherein said roasting apparatus comprises at least one sensor (7) configured for monitoring the level of at least one air contaminant, and the controller (4) is arranged to control the smoke treating unit (3), preferably the valve device (6), based on at least the monitored level of said at least one air contaminant.

17. ~~An~~The apparatus according to any one of Claims 12 to 16**,** wherein the roasting device comprises a coffee beans identification device (9) configured for obtaining information about the coffee beans (8) introduced in the roasting device, and the controller (4) of the apparatus is arranged to :

- to obtain information about the coffee beans introduced in the roasting device (1) in order to determine directly or indirectly :
  . the heating profile to be applied, and
  . the level of air contaminants produced in the course of said heating profile or the smoke treatment to be applied,

and

- to heat said coffee beans according to the determined heating profile and to control the smoke treating unit (3), preferably the valve device (6), based on the determined level of air contaminants produced in the course of said heating profile or the determined smoke treatment.

18. A smoke treating unit (3) comprising :

- a smoke collecting device (2) configured to be connectable to ~~the~~a smoke outlet of a roasting device,

- a contaminants treating device (32) configured to treat the smoke produced in a roasting device and to prevent the dispense of air contaminants, including coffee aromas, in a room, and

- a smoke diverting device (31) positioned between the smoke collecting device (2) and the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room, said smoke diverting device being configured to divert a part of the smoke collected by the smoke collecting device (2) away from the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room and directly to the outside of the smoke treating unit,

- a controller (4) arranged to control said smoke treating unit (3), wherein the controller is adapted to dispense in the room a part of the whole quantity of smoke produced during the time of the step of roasting without having this smoke treated by the contaminants treating device (32) configured to prevent the dispense of coffee aromas in the room.