CLAIMS:

1. A method for pyrolysing plastic material, the method comprising the steps of:

heating and densifying plastic material;

transporting the plastic material to two or more reactors, the heated plastic material fed to only one reactor at a time using a plurality of interlocked valves;

pyrolysing the plastic material in the two or more reactors; and

maintaining the plastic material in a heated state during the transporting step.

2. A method according to claim 1, wherein the step of heating and densifying the plastic material is effected by extruding the plastic material.

3. A method according to any one of the preceding claims, wherein the plastic material is maintained in a melted state during the transporting step.

4. A method according to any one of the preceding claims, wherein a temperature of the plastic material is maintained at a temperature within a target temperature range.

5. A method according to claim 4, wherein the target temperature range is lower than a decomposition temperature of the plastic material.

6. A method according to any one of the preceding claims, wherein a temperature of the plastic material is maintained at a temperature of at least 265°C.

7. A method according to any one of the preceding claims, wherein a temperature of the plastic material is maintained at a temperature of at least 280°C.

8. A method according to any one of the preceding claims, wherein a temperature of the plastic material is maintained at a temperature of no more than 310°C.

9. A method according to any one of the preceding claims, wherein a temperature of the plastic material is maintained at a temperature of no more than 300°C.

10. A method according to claim 4, or any one of claims 5 to 9 as dependent upon claim 4, wherein the plastic material is heated to a temperature within the target temperature range during the heating and densifying step.

11. A method according to claim 10, wherein the plastic material is at a temperature within the target temperature range at the end of the heating and densifying step.

12. A method according to any one of the preceding claims, wherein the plastic material is transported at a positive angle to the horizontal.

13. A method according to claim 12, wherein the angle is selected from a range of from 10° to 45°.

14. A system for pyrolysing plastic material, the system comprising:

a pump for heating and densifying plastic material;

two or more reactors for pyrolysing the plastic material;

a plurality of valves, each reactor provided with a valve for enabling or preventing heated plastic material from being fed to the reactor; and

a pipe for transporting the plastic material between the pump and the two or more reactors,

wherein:

the pipe is configured to maintain the plastic material in a heated state; and

the plurality of valves are interlocked to feed heated plastic material to only one reactor at a time.

15. A system according to claim 14, wherein the pump comprises an extruder.

16. A system according to any one of claims 14 to 15, wherein the pipe is configured to maintain the plastic material in a melted state.

17. A system according to any one of claims 14 to 16, wherein the pipe comprises heating means.

18. A system according to claim 17, wherein the heating means comprises electric heat tracing.

19. A system according to any one of claims 14 to 18, wherein the pipe is oriented at a positive angle to the horizontal.

20. A system according to any one of claims 14 to 19, wherein the angle is selected from a range of from 10° to 45°.