

We Claim:

1. A method for reducing a proportion of particulate matter suspended in air, the method characterized by:
 - 5 generating a radiofrequency signal of a predetermined frequency;
 - power amplifying the generated signal by a power amplifier for feeding to an antenna for radiating as an electromagnetic wave;
 - periodically interrupting the power amplified signal from reaching the antenna, for a predetermined duration, for generating a pulsed radiofrequency
 - 10 signal;
 - feeding the pulsed radiofrequency signal to a transmitting antenna for radiating the pulsed electromagnetic radiation into air by the antenna for accelerating the agglomeration of particulate matter suspended in the air thereby accelerating the precipitation of the particulate matter, and thereby reducing the
 - 15 proportion of particulate matter suspended in air.
2. The method of claim 1 wherein the predetermined frequency lies in the radiofrequency range.
- 20 3. The method of claim 1 wherein the predetermined frequency lies in the frequency range of 800 MHz and 5GHz
4. The method of claim 1 wherein the predetermined frequency is between 2.4 GHz. and 2.5 GHz.
- 25 5. A device **(215)** for reducing a proportion of particulate matter suspended in air, the device **(215)** characterized by:
 - a signal generator **(305)** for generating a signal of a predetermined frequency;

a power amplifier (310) for power amplifying the generated signal for feeding to an antenna for radiating an electromagnetic wave;

a pulse width modulator (325) for periodically interrupting the power amplified signal from reaching the antenna (240 and 245) wherein the antenna (240 and 245) is for radiating the pulsed electromagnetic radiation into air for accelerating the agglomeration of particulate matter suspended in the air, thereby accelerating the precipitation of the particulate matter, and thereby reducing the proportion of particulate matter suspended in air.

6. The device (215) of claim 5 wherein the signal generator (305) is configured for generating the signal in the radiofrequency range.

7. The device (215) of claim 5 wherein the signal generator (305) is configured for generating a signal of frequency in the range of 800 MHz to 5 GHz

8. A system (200) for managing the reducing of a proportion of particulate matter suspended in air, the system (200) characterized by:

a remote server (205) communicatively coupled to the device (215) of claim 1, the remote server (205) comprising;

data and instructions configured for one or more of,

monitoring the state of the health of the device (215) of claim 1,

communicating operating instructions to the device (215) of claim 1 for operating it depending on one or more factors selected from a group of factors, but not limited to, a geographical location of the device, a current atmospheric condition at the geographical location of the device, an estimate of pollution characteristics at the geographical location and one or more inputs provided by a user of the device (215).