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(54) OPTIMIZATION METHOD FOR AN INTERNAL COMBUSTION ENGINE

OPTIMIERUNGSVERFAHREN FÜR EINE BRENNKRAFTMASCHINE

PROCEDE D'OPTIMISATION POUR UN MOTEUR A COMBUSTION INTERNE

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Description

OBJECT OF THE INVENTION

[0001] The present invention relates to a combustion optimization method in an internal combustion engine based on the use of a part placed in a position close to the fuel chamber causing a better combustion reaction. The method comprises the steps needed to configure the part.

BACKGROUND OF THE INVENTION

[0002] One of the fields of the art that has undergone more intense development is the field of combustion process optimization to favor a lower pollutant emission and increased energy efficiency.

[0003] One of the combustion processes with the largest impact is the process that occurs in the combustion chamber of the internal combustion engines in vehicles, particularly due to the large volume of vehicles in circulation. There is increasingly more pressure to harness the fuel energy capacity by optimizing combustion.

[0004] One of the areas of work for combustion improvement is established in the fuel and oxidizing agent mixing processes. The more homogeneous the mixture is, the easier it is for the fuel and oxidizing agent molecules to be in contact, facilitating the combustion reaction of most of the molecules that are part of the fuel, especially when using lean mixtures below stoichiometric values.

[0005] Examples of improvement in mixing processes are those occurring with the introduction of injection. In the past, mixing by means of carburetors was highly dependent on atmospheric conditions and the regulation thereof was very traditional and prone to deviations from their optimal operative point.

[0006] The introduction of high-pressure injection has allowed the fuel to be administered with a very precise dosing and spraying the fuel in microdroplets favors a very high degree of mixing.

[0007] Even systems which incorporate up to two and three injectors per combustion chamber to achieve a progressive injection during the compression phase and even after ignition are known, thus making the supply of fuel more flexible in different working conditions of the internal combustion engine and with a filling that can also be different as deflagration progresses.

[0008] Another line of research that tries to improve mixing processes is that intended to increase the turbulence of the intake flow at the chamber inlet. These flows with a greater mixing capacity must endeavor to not penalize the pressure drop given that a pressure drop also involve a reduction of the filling capacity of the chamber before the compression phase since the amount of air or oxidizing agent introduced in the chamber is proportional to the power supplied by the engine.

[0009] The filling of the combustion chamber is another

strategy for improvement in the response of the internal combustion engine. The usual solutions for increasing the filling use a rise in pressure at the inlet which increases the density of the air and, therefore, the filling of the chamber.

[0010] When the rise in pressure is done by means of turbochargers, it is necessary to have control over the rise in temperature caused by the increase in pressure as a rise in temperature in the pre-compression phase reduces the density of the air, achieving an effect opposite to that which is sought.

[0011] To solve this problem of the rise in temperature, heat exchangers which lower the temperature by removing heat, operating at a pressure above atmospheric pressure, are used. It is common to use two-stage or more turbochargers such that, between each stage of compression, the temperature is reduced with intermediate stages of a heat exchanger, preferably a radiator.

[0012] Lastly, another line of work intended for improving the performance of internal combustion engines considers combustion as a chemical reaction between oxidizing agent and fuel. Most of the proposed solutions involve incorporating fuel additives which are used to catalyze the combustion reaction, for example by increasing the reaction speed of one or more intermediate components of the reaction.

[0013] In this case, additives have a high price, which increases the price of fuel which is already high on its own.

[0014] The present invention overcomes these drawbacks by increasing engine efficiency and torque in an internal combustion engine, acting on a molecular level in the fuel without using additives.

DESCRIPTION OF THE INVENTION

[0015] A first aspect of the invention relates to a method of preparing a metallic part *which uses the following elements:*

- *at least one graphic pattern;*
- *at least a first container with a first fluid;*
- *at least a second container with a second fluid;*
- *a device comprising:*

an input for capturing an electromagnetic signal captured through an input antenna configured for capturing an emission radiation from a given object;

an output for applying an excitation signal on an output antenna configured for applying an electromagnetic emission radiation on a given object;

wherein the device is adapted for the amplification and processing of the signal received through the input and, after the processing thereof, supplying the processed signal through the output;

- a metallic part.

[0016] The metallic part should be placed in a position close to the fuel and intake air mixing site of the internal combustion engine such that the mixture is under the influence of the metallic part which acts on the molecules of the reactants, improving the reaction speed. In preferred examples, this influence is less than 1 meter, and more preferably less than 25 cm, and more preferably less than 10 cm.

[0017] The metallic part is resonant after a treatment process. Being resonant must be understood to mean that the part has the ability to emit an electromagnetic signal at at least one frequency during a period of time and, likewise, when it is subjected to an electromagnetic field caused by an antenna, it is capable of being resonant at the excitation frequency of the antenna maintaining the signal for a period of time.

[0018] This treatment of the metallic part comprises the following steps:

- a) adding the at least one graphic pattern on the surface of the at least a first container with the first fluid;
- b) freezing the first fluid of the at least first container;
- c) placing the at least a first container with the first frozen fluid in the input antenna of the device, and placing the at least a second container with the second fluid in the output antenna of the device;
- d) putting the device into operating mode for a pre-established period of time, wherein the output signal of the device is established by amplification of the input signal;
- e) freezing the second fluid of the at least second container;
- f) placing the at least a second container with the second frozen fluid in the input antenna and the metallic part in the output antenna;
- g) putting the device into operating mode for a pre-established period of time, wherein the output signal of the device is established by amplification of the input signal.

[0019] In a first step, a graphic pattern is incorporated on the surface of the at least a first container with the first fluid. A specific way of incorporating the graphic pattern on the first container is by means of an adhesive which binds together a sheet on which the graphic pattern is printed and the first container.

[0020] The presence of the graphic pattern infers on the molecular arrangement of the first fluid stored in the first container, especially when the first fluid is a polarizable fluid, and more preferably water.

[0021] This molecular arrangement is ensured by freezing the first fluid stored in the first container. Although the freezing condition prevents the displacement of the molecules of the first fluid, it does not prevent them from vibrating in a resonant condition, even if this

causes a weak signal.

[0022] The next step places the at least a first container with the first frozen fluid in the input antenna of the device such that the device receives through the input antenna a resonant signal with at least a frequency spectrum containing a frequency component dependent on the first fluid and on the graphic pattern.

[0023] The input antenna of the device is excited by the first container causing a signal which is amplified by the device in order to give rise to an output signal that is amplified and intended to be fed to the output antenna.

[0024] The output antenna, excited by the device, emits a signal of at least the excitation frequency in the input antenna, and it is applied to a second fluid stored in a container. The fluid responds by being resonant according to a given pattern dependent on the frequency spectrum emitted by the output antenna and, after a pre-established time, is frozen in order to preserve the generated pattern.

[0025] In a later step, the second frozen container is the one that is placed in the input antenna to generate a new resonant signal. In this case, the metallic part is placed in the output antenna such that the input signal generated by the second container is amplified again in order to be applied to the metallic part amplified by the device which is kept under these circumstances for an also pre-established time.

[0026] The device has the ability to amplify the input signal received in the input antenna and to feed this amplified signal to the output antenna.

[0027] According to some embodiments, the device can perform treatment of the input signal, among which the following treatments are included:

- filtering the input signal by removing those components having a frequency outside a pre-established range;
- applying a high-pass filter;
- applying a low-pass filter;
- inverting the signal.

[0028] Every time an element is placed in the input antenna and another one is placed in the output antenna with the device in the operating mode, a residence time is established, wherein times that have been proven effective are at least 30 seconds, more preferably at least 1 minute, more preferably 5 minutes, more preferably 10 minutes, more preferably 15 minutes, more preferably 30 minutes.

[0029] Once the metallic part has been treated, it is this metallic part that can be put in operating mode in an area close to the internal combustion engine, more specifically close to at least one of the combustion chambers of said internal combustion engine.

DESCRIPTION OF THE DRAWINGS

[0030] These and other features and advantages of the

invention will become more apparent based on the following detailed description of a preferred embodiment, given only by way of illustrative and non-limiting example in reference to the attached figures.

Figure 1 schematically shows the first steps of the method for preparing the metallic part.

Figure 2 schematically shows the final steps of the method for preparing the metallic part.

Figure 3 shows an example of graphic patterns used in a preferred embodiment.

Figure 4 shows a configuration of one of the preferred surfaces of the metallic part.

Figure 5 shows a comparison of an increase in the torque of an internal combustion engine in which a previously prepared metallic part has been placed in a position close to the combustion chamber.

Figures 5a and 5b show the power and torque curves, respectively, of a Renault Clio 1.5 dCi without using the metallic part.

Figures 5c and 5d show the power and torque curves of the same engine, i.e., that of a Renault Clio 1.5 dCi, modified by the action of the metallic part adapted to act on the engine.

Figures 6a and 6b show the power and torque curves, respectively, of a Kia Stonic 1.0 T-GDI without using the metallic part.

Figures 6c and 6d show the power and torque curves of the same engine, i.e., that of a Kia Stonic 1.0 T-GDI, modified by the action of the metallic part adapted to act on the engine.

Figures 7a and 7b show efficiency curves, where efficiency is measured as fuel consumption per unit of energy delivered (g/Kwh), without and with the metallic part adapted to act on the engine from the previous example, i.e., Kia Stonic 1.0 T-GDI.

DETAILED DESCRIPTION OF THE INVENTION

[0031] According to the first inventive aspect, the present invention relates to a combustion optimization method in an internal combustion engine.

[0032] As schematically shown in Figure 1, the method uses a device (4) comprising an input (4.1) adapted for receiving a signal captured through an input antenna (4.1.1), with the input antenna (4.1.1) being configured for capturing an electromagnetic signal of an object placed in a position close to the input antenna (4.1.1).

[0033] In this embodiment, the bearing element on

which an object capable of emitting an electromagnetic signal is placed has been depicted by means of a first support (4.1.2) located on the antenna (4.1.1).

[0034] The signal entering through the input (4.1) is processed by the device (4), in particular amplifying same, in order to emit the amplified signal through an output (4.2) which feeds an output antenna (4.2.1), which in turn emits an electromagnetic signal that propagates by radiating in particular any object which is placed in a second support (4.2.2).

[0035] Examples of devices such as the one described and marketed include BICOM bioresonance equipment.

[0036] Said Figure 1 shows a first container (2) containing a first fluid; in this embodiment, water will be used as it is a substance that is polarizable in an electric field and supplies a higher signal response.

[0037] The first container (2) has a label attached by means of an adhesive, said label containing a graphic pattern (1). Examples of graphic patterns are shown in Figure 3, in particular 64 symbols formed by the stacked combination of the symbol, which is shown in the top row, on the same column, on top of the corresponding symbol of the first column, at the level of the same row. The patterns thus formed are known as I-CHING encoding hexagrams.

[0038] In this embodiment, a total of 64 first containers (2) containing water will be used, with each of them incorporating a different graphic pattern (1) from among the 64 graphic patterns of Figure 3.

[0039] For each of these first containers (2) thus prepared, the water they contain is influenced by the pattern establishing a molecular arrangement allowing it to become resonant, emitting a weak electromagnetic signal dependent on the graphic pattern (1).

[0040] Each of the first containers (2) have been left stored for a period of time of at least 1 minute, more preferably at least 5 minutes, more preferably 1 hour, more preferably 12 hours, more preferably 24 hours, storing them in a freezer which allows the resonance pattern of the water to be preserved. Each of the first containers (2) must preferably be kept such that it is shielded against electromagnetic fields, for example by means of a Faraday cage or in a metallic shell, such as an aluminum sheet.

[0041] To observe how the structure of water is modified in the presence of the graphic pattern (1), one example is the use of a darkfield microscope with a minimum magnification of 4 million.

[0042] Once the content of the 64 first containers (2) is frozen, a total of 64 intermediate steps are performed, one for each frozen first container (2).

[0043] As shown in Figure 1, this intermediate step incorporates the first container (2) on the first support (4.1.2) and puts the device (4) in operating mode, amplifying the signal captured in the input antenna (4.1.1) in order to feed the output antenna (4.2.1) that emits the amplified signal. The amplified signal affects a second container (3) which is put in operating mode in the second

support (4.2.2). For each first container, each intermediate step has kept the device (4) operative for a minimum of 3 minutes, preferably a minimum of 5 minutes, preferably a minimum of 10 minutes, preferably a minimum of 12 minutes, preferably a minimum of 15 minutes, after which period the frozen first container (2) has been replaced with another one, maintaining the second container (3). After this process, the second container (3) processed by the device (4) is frozen.

[0044] At the end of this intermediate step, the result is a processed and frozen second container (3) containing the information transmitted from the 64 first containers (2).

[0045] Once these 64 intermediate steps have ended, a new additional step is performed. This additional step is schematically shown in Figure 2, where it shows how the second container (3) is placed in the first support (4.1.2), and the metallic part (5) is placed in the second support (4.2.2). In this additional step, the metallic part (5) is placed in the second support (4.2.2) while the device (4) is in the operating mode, amplifying the signal received by the first input antenna (4.1.1) for at least a time of 5 minutes, more preferably a minimum of 10 minutes, more preferably a minimum of 15 minutes, more preferably a minimum of 18 minutes, more preferably a minimum of 20 minutes.

[0046] Once this process has ended, once it is placed in a position close to at least one combustion chamber of the internal combustion engine, the metallic part (5) is adapted for modifying the combustion behavior, improving engine response.

[0047] According to a preferred example of the invention, the output antenna (4.2.1) additionally incorporates a magnet that is resonant with said antenna, enhancing the transfer of energy to metallic elements. This example is preferably used in the second transfer from the second container (3) to the metallic part (5).

[0048] According to another embodiment, the device (4) comprises a specific output antenna which already incorporates the magnet for radiating metals and being used in the final step in which it is the metallic part (5) that is placed in the output antenna.

[0049] The accumulation of processing steps with containers that have started from different graphic patterns (1) increases the radiation spectra applied to the metallic part, improving the behavior of the motor to a greater degree.

[0050] In this embodiment, the metallic part (5) is an aluminum disc wherein one of its faces has a relief in the form of a pattern known as "the flower of life" and shown in Figure 4. It has been observed in experimental testing that the effect on the combustion chamber of a pattern thus configured lasts longer.

[0051] Alternatively, fractal patterns in the relief of one of the faces of the metallic part are considered suitable.

[0052] The device (4) used in this preferred example has an amplification factor of at least 24 and has preferably been configured to have an amplification factor of

at least 50, and more preferably an amplification factor of 64.

[0053] Both the first containers (2) and the second container (3) are ampoules, as shown in Figures 1 and 2.

[0054] The freezing phase of both the first containers (2) and the second container (3) requires intermediate protection with a metallic sheet, preferably an aluminum sheet, shielding the containers (2, 3) against external radiations.

[0055] Once the metallic part (5) was adapted, testing was performed in vehicles already in use in order to verify its effectiveness by measuring both the torque and the power delivered in the operating range of engine revolutions. Two tests were performed for each engine, one test without placing the metallic part (5) in a position close to the combustion chamber and a second test placing the metallic part (5) close to the combustion chamber.

[0056] The first test was performed on the engine of a Renault Clio 1.5 dCi (68 hp - 50 kw), that is, with a rated power of 68 hp. The atmospheric pressure was 941,742 hPa and the room temperature was 22°C. Both tests have been performed on a PHIVEHICLE bench to verify the real response curves.

[0057] Figure 5a shows the power in the first test without the metallic part (5) being placed close to the engine. The power curve is shown superimposed on three light reference curves, a lower curve, an upper curve, and a lighter intermediate curve. The power curve fluctuates more than the reference curves. They are distinguished by means of a label (Power) in the figure.

[0058] Figure 5b shows the torque curve also in the first test without the metallic part (5) being placed close to the engine. In this case, the torque curve is also shown superimposed on three light reference curves, a lower curve, an upper curve, and a lighter intermediate curve. The torque curve fluctuates more than the reference curves. They are distinguished by means of a label (Torque) in the figure.

[0059] In both cases, the curves only exceed the upper curve at the end part thereof with the maximum engine speed.

[0060] Both curves start from an engine speed of about 2,000 rpm until achieving the cutoff engine speed close to 4,200 rpm.

[0061] A maximum power of 74.9 hp (at 4079 rpm) and a maximum torque of 154.2 N*m (at 2568 rpm) were observed in this test.

[0062] The results of the second test are shown in Figures 5c and 5d for the power and torque curves, respectively. In these second curves, an improvement both in the power curve and in the torque curve can be observed. The (lower, upper, and intermediate) reference curves, which are exactly the same as the reference curves of Figures 5a and 5b, are superimposed on the curves in order to allow for an easier comparison.

[0063] In these second curves, it can be observed in both cases how both the power curve and the torque curve exceed the upper reference curve by a wide range

at medium and high revolutions. In particular, a maximum power of 79 hp at 4051 rpm (even at fewer revolutions) and a torque of 165.2 N*m (at 2698 rpm) are achieved. Not only are higher maximum values achieved, but also in medium and high regions both curves show higher power and torque values.

[0064] The third test has been performed on the engine of a Kia Stonic 1.0 T-GDI (120 hp - 88 kw), that is, with a rated power of 120 hp. The atmospheric pressure was 943,214 hPa and the room temperature was 20°C. Both the third and fourth tests have been performed on a PHIVEHICLE bench to verify the real response curves.

[0065] Figure 6a shows the power in the third test without the metallic part (5) being placed close to the engine. The power curve is shown superimposed on three light reference curves, a lower curve, an upper curve, and a lighter intermediate curve. The power curve fluctuates more than the reference curves. They are distinguished by means of a label (Power) in the figure.

[0066] Figure 6b shows the torque curve also in the third test without the metallic part (5) being placed close to the engine. In this case, the torque curve is also shown superimposed on three light reference curves, a lower curve, an upper curve, and a lighter intermediate curve. The torque curve fluctuates more than the reference curves. They are distinguished by means of a label (Torque) in the figure.

[0067] In both cases, the curves are above the medium reference curve, slightly above, and far away from the upper reference curve, being close to the upper curve only at the end part thereof with the maximum engine speed.

[0068] Both curves start from an engine speed of about 1500 rpm until achieving the cutoff engine speed which does not reach 6300 rpm.

[0069] A maximum power of 123.2 hp (at 5722 rpm) and a maximum torque of 178.8 N*m (at 3452 rpm) were observed in this test.

[0070] The results of the fourth test are shown in Figures 6c and 6d for the power and torque curves, respectively. In these curves relating to the fourth test, an improvement both in the power curve and in the torque curve can be observed. The (lower, upper, and intermediate) reference curves, which are exactly the same as the reference curves of Figures 6a and 6b, are superimposed on the curves in order to allow for an easier comparison.

[0071] In these second curves, it can be observed in both cases how both the power curve and the torque curve greatly approximate the upper reference curve by a wide range going from low revolutions to high revolutions, eventually slightly exceeding this upper reference curve at high revolutions. In particular, a maximum power of 129.7 hp (at 5671 rpm) (even at fewer revolutions) and a torque of 189.3 N*m (at 2778 rpm) are achieved.

[0072] In this second test, efficiency data measured as fuel consumption measured in grams per work delivered by the engine, i.e., per kilowatt*hour, are also available.

[0073] Figure 7a shows the efficiency curve in the

engine rotating speed range also plotted over three reference curves, a lower curve, an upper curve, and an intermediate curve.

[0074] These curves are used as a reference in order to observe how the real curve (the curve having significant variations with respect to the rotating speed) changes when compared in two situations, a first situation in which the metallic part is not used, shown in Figure 7a, and a second situation in which the metallic part (5) is used, shown in Figure 7b.

[0075] Regardless of being able to improve power and torque, these graphs are very representative given that the strong reduction in consumption, showing a greater efficiency, is observed. That is, the curve shown in Figure 7a starts from a value positioned on the intermediate reference curve and drops to be positioned between the lower and intermediate reference curves for low and medium speeds. After this evolution, fuel consumption increases until the curve is positioned close to the upper reference curve to later drop but remaining close to the intermediate curve before reaching the engine cutoff values.

[0076] In contrast, the curve shown in Figure 7b already starts from a much lower consumption value, between the lower reference curve and the intermediate curve, evolving close to the lower reference curve for low and medium speeds. The subsequent rise in fuel consumption, instead of reaching the upper reference curve, is positioned on the intermediate reference curve, dropping again to the lower curve.

[0077] It can therefore be observed that fuel consumption drops drastically at low, medium, and high engine speeds, therefore increasing the efficiency thus measured (g/Kwh).

[0078] If maximum efficiency is observed, it occurs at the minimum portion of the curve, that is, at minimum fuel consumption. In the curve shown in Figure 7a, the highest efficiency is 261.9 g/Kwh at 3452 rpm.

[0079] The minimum fuel consumption of Figure 7b, when the metallic part (5) is used, is 249.6 g/Kwh at 2968 rpm. Although the reduction is significant at the minimum fuel consumption position, what is more relevant is that the reduction in fuel consumption occurs noticeably throughout the engine speed range.

Claims

1. A method of preparing a metallic part using the following elements:

- at least one graphic pattern (1);
- at least a first container (2) with a first fluid;
- at least a second container (3) with a second fluid;
- a device (4) comprising:

an input (4.1) for capturing an electromag-

netic signal captured through an input antenna (4.1.1) configured for capturing an emission radiation from a given object; an output (4.2) for applying an excitation signal on an output antenna (4.2.1) configured for applying an electromagnetic emission radiation on a given object; wherein the device (4) is adapted for the amplification and processing of the signal received through the input (4.1) and, after the processing thereof, supplying the processed signal through the output (4.2);

- a metallic part (5);

wherein the method comprises:

- a) adding the at least one graphic pattern (1) on the surface of the at least a first container (2) with the first fluid;
- b) freezing the first fluid of the at least first container (2);
- c) placing the at least a first container (2) with the first frozen fluid in the input antenna (4.1.1) of the device (4), and placing the at least a second container (3) with the second fluid in the output antenna (4.2.1) of the device (4);
- d) putting the device (4) into operating mode for a pre-established period of time, wherein the output signal of the device (4) is established by amplification of the input signal;
- e) freezing the second fluid of the at least second container;
- f) placing the at least a second container (2) with the second frozen fluid in the input antenna (4.1.1) and the metallic part (5) in the output antenna (4.2.1);
- g) putting the device (4) into operating mode for a pre-established period of time, wherein the output signal of the device (4) is established by amplification of the input signal.

2. The method according to claim 1, comprising:

- a plurality of different graphic patterns (1) and a plurality of first containers (2), with the first fluid;
- step a) adds each graphic pattern (1) to a different first container (2);
- step b) for freezing is applied to the plurality of first containers (2);
- steps c) and d) are applied sequentially for each first container (2) placed in the input antenna (4.1.1) of the device (4) and for the same second container (3) placed in the output antenna (4.2.1).

3. The method according to any of the preceding claims, wherein the first fluid, the second fluid, or

both fluids are a polarizable substance.

4. The method according to the preceding claim, wherein the first fluid, the second fluid, or both fluids are water.
5. The method according to any of the preceding claims, wherein the graphic pattern is an I-CHING encoding hexagram.
6. The method according to the preceding claim, wherein the plurality of graphic patterns corresponds to all the I-CHING encoding hexagrams.
7. The method according to any of the preceding claims, wherein the metallic part (5) is configured according to a disc, preferably made of aluminum.
8. The method according to the preceding claim, wherein one of the faces of the disc has a relief in the form of a continuous pattern.
9. The method according to claim 8, wherein the relief is the pattern identified as "the flower of life".
10. The method according to claim 8, wherein the pattern is a fractal.
11. The method according to any of the preceding claims, wherein the amplification factor of the amplification device (3) is at least 25, more preferably greater than 50, more preferably greater than 64.
12. The method according to any of the preceding claims, wherein the first containers (2) are ampoules.
13. The method according to any of the preceding claims, wherein the freezing process for any of the containers (2, 3) includes the protection of each container by means of an aluminum sheet.
14. The method according to any of the preceding claims, wherein the addition of a graphic pattern (1) on the surface of the at least a first container (2) with the first fluid of step a) is applied by printing the pattern on a sticker which is in turn adhered on the first container (2).
15. The method according to any of the preceding claims, wherein the output antenna (4.2.1), preferably when used with the metallic part (5), comprises a magnet close to the antenna to enhance the transmitted energy.

Patentansprüche

1. Verfahren zum Vorbereiten eines metallischen Teils

unter Verwendung der folgenden Elemente:

- zumindest ein grafisches Muster (1);
- zumindest einen ersten Behälter (2) mit einem ersten Fluid;
- zumindest einen zweiten Behälter (3) mit einem zweiten Fluid;
- eine Vorrichtung (4) aufweisend:

einen Eingang (4.1) zum Erfassen eines elektromagnetischen Signals, das über eine Eingangsantenne (4.1.1) erfasst wird, die zum Erfassen einer Emissionsstrahlung von einem bestimmten Objekt eingerichtet ist;

einen Ausgang (4.2) zum Anlegen eines Erregungssignals an einer Ausgangsantenne (4.2.1), die zum Anlegen einer elektromagnetischen Emissionsstrahlung auf ein bestimmtes Objekt eingerichtet ist;

wobei die Vorrichtung (4) zu der Verstärkung und Verarbeitung des über den Eingang (4.1) empfangenen Signals ausgestaltet ist und, nach der Verarbeitung dessen, das verarbeitete Signal über den Ausgang (4.2) liefert;

- ein metallisches Teil (5);

wobei das Verfahren auweist:

- a) Hinzufügen des zumindest einen grafischen Musters (1) auf die Oberfläche des zumindest einen ersten Behälters (2) mit dem ersten Fluid;
- b) Einfrieren des ersten Fluids des zumindest einen ersten Behälters (2);
- c) Platzieren des zumindest einen ersten Behälters (2) mit dem ersten gefrorenen Fluid in die Eingangsantenne (4.1.1) der Vorrichtung (4), und Platzieren des zumindest einen zweiten Behälters (3) mit dem zweiten Fluid in die Ausgangsantenne (4.2.1) der Vorrichtung (4);
- d) Versetzen der Vorrichtung (4) in den Betriebsmodus für eine vorherbestimmte Zeitperiode, wobei das Ausgangssignal der Vorrichtung (4) durch Verstärkung des Eingangssignals bestimmt ist;
- e) Einfrieren des zweiten Fluids des zumindest einen zweiten Behälters;
- f) Platzieren des zumindest einen zweiten Behälters (2) mit dem zweiten gefrorenen Fluid in die Eingangsantenne (4.1.1) und des metallischen Teils (5) in die Ausgangsantenne (4.2.1);
- g) Versetzen der Vorrichtung (4) in den Betriebsmodus für eine vorherbestimmte Zeitperiode, wobei das Ausgangssignal der Vorrichtung (4) durch Verstärkung des Eingangssignals bestimmt ist.

2. Verfahren gemäß Anspruch 1, aufweisend:

- eine Vielzahl von verschiedenen grafischen Mustern (1) und eine Vielzahl von ersten Behältern (2), mit dem ersten Fluid;
- Schritt a) fügt jedes grafische Muster (1) einem anderen ersten Behälter (2) hinzu;
- Schritt b) zum Einfrieren wird auf die Vielzahl der ersten Behälter (2) angewendet;
- Schritt c) und d) werden sequenziell für jeden ersten Behälter (2), der in der Eingangsantenne (4.1.1) der Vorrichtung (4) platziert ist, und für den gleichen zweiten Behälter (3), der in der Ausgangsantenne (4.2.1) platziert ist, angewendet.

3. Verfahren gemäß einem der vorstehenden Ansprüche, wobei das erste Fluid, das zweite Fluid, oder beide Fluide eine polarisierbare Substanz sind.

4. Verfahren gemäß einem der vorstehenden Ansprüche, wobei das erste Fluid, das zweite Fluid, oder beide Fluide Wasser sind.

5. Verfahren gemäß einem der vorstehenden Ansprüche, wobei das grafische Muster ein I-CHING Kodierungshexagramm ist.

6. Verfahren gemäß einem der vorstehenden Ansprüche, wobei die Vielzahl der grafischen Muster den allen I-CHING Kodierungshexagrammen entspricht.

7. Verfahren gemäß einem der vorstehenden Ansprüche, wobei das metallische Teil (5) als eine Scheibe, vorzugsweise hergestellt aus Aluminium, ausgebildet ist.

8. Verfahren gemäß dem vorstehenden Anspruch, wobei eine der Flächen der Scheibe ein Relief in Form eines durchgehenden Musters hat

9. Verfahren gemäß Anspruch 8, wobei das Relief das als "die Blume des Lebens" bezeichnete Muster ist.

10. Verfahren gemäß Anspruch 8, wobei das Muster fraktal ist

11. Verfahren gemäß einem der vorstehenden Ansprüche, wobei der Verstärkungsfaktor der Verstärkungsanordnung (3) zumindest 25, vorzugsweise größer als 50, besonders bevorzugt größer als 64 ist.

12. Verfahren gemäß einem der vorstehenden Ansprüche, wobei die ersten Behälter (2) Ampullen sind.

13. Verfahren gemäß einem der vorstehenden Ansprüche, wobei der Einfrierprozess für jeden der Behälter (2, 3) den Schutz eines jeden Behälters mittels eines

Aluminiumblechs einschließt.

14. Verfahren gemäß einem der vorstehenden Ansprüche, wobei die Zuführung eines grafischen Musters (1) auf die Oberfläche des zumindest einen ersten Behälters (2) mit dem ersten Fluid von Schritt a) durch Drucken des Musters auf einen Aufkleber, der wiederum auf den ersten Behälter (2) geklebt wird, aufgebracht ist. 5
15. Verfahren gemäß einem der vorstehenden Ansprüche, wobei die Ausgangsantenne (4.2.1), vorzugsweise bei Verwendung mit dem metallischen Teil (5), einen Magneten in der Nähe der Antenne aufweist, um die übertragene Energie zu erhöhen. 10 15

Revendications

1. Méthode de préparation d'une pièce métallique utilisant les éléments suivants : 20
- au moins un motif graphique (1) ;
 - au moins un premier récipient (2) contenant un premier fluide ; 25
 - au moins un deuxième récipient (3) contenant un deuxième fluide ;
 - un dispositif (4) comprenant :
 - une entrée (4.1) pour capturer un signal électromagnétique capturé par une antenne d'entrée (4.1.1) configurée pour capter un rayonnement d'émission d'un objet donné ; 30
 - une sortie (4.2) pour appliquer un signal d'excitation sur une antenne de sortie (4.2.1) configurée pour appliquer un rayonnement d'émission électromagnétique sur un objet donné ; 35
 - où le dispositif (4) est adapté à l'amplification et au traitement du signal reçu par l'entrée (4.1) et, après traitement, à la fourniture du signal traité par la sortie (4.2) ; 40
 - une partie métallique (5) ; 45
- où la méthode comprend :

- a) ajouter le au moins un motif graphique (1) sur la surface d'au moins un premier récipient (2) avec le premier fluide ; 50
- b) congeler le premier fluide du au moins le premier récipient (2) ;
- c) placer le au moins un premier récipient (2) contenant le premier fluide congelé dans l'antenne d'entrée (4.1.1) du dispositif (4), et placer le au moins un deuxième récipient (3) avec le deuxième fluide dans l'antenne de sortie (4.2.1) 55

du dispositif (4) ;

- d) mettre le dispositif (4) en mode de fonctionnement pendant une période de temps préétablie, le signal de sortie du dispositif (4) étant établi par l'amplification du signal d'entrée ;
- e) congeler le deuxième fluide du au moins deuxième récipient ;
- f) placer le au moins un deuxième récipient (2) contenant le deuxième liquide congelé dans l'antenne d'entrée (4.1.1) et la partie métallique (5) dans l'antenne de sortie (4.2.1) ;
- g) mettre le dispositif (4) en mode de fonctionnement pendant une période de temps préétablie, le signal de sortie du dispositif (4) étant établi par amplification du signal d'entrée.

2. Méthode selon la revendication 1, comprenant :

- une pluralité de motifs graphiques différents (1) et une pluralité de premiers récipients (2), avec le premier fluide ;
- l'étape a) ajoute chaque motif graphique (1) à un premier récipient (2) différent ;
- l'étape b) de congélation est appliquée à la pluralité de premiers récipients (2) ;
- les étapes c) et d) sont appliquées séquentiellement pour chaque premier récipient (2) placé dans l'antenne d'entrée (4.1.1) du dispositif (4) et pour le même deuxième récipient (3) placé dans l'antenne de sortie (4.2.1).

3. Méthode selon l'une quelconque des revendications précédentes, dans laquelle le premier fluide, le deuxième fluide ou les deux fluides sont une substance polarisable.

4. Méthode selon la revendication précédente, dans laquelle le premier fluide, le deuxième ou les deux fluides sont de l'eau.

5. Méthode selon l'une quelconque des revendications précédentes, dans laquelle le motif graphique est un hexagramme de codage I-CHING.

6. Méthode selon la revendication précédente, dans laquelle la pluralité de motifs graphiques correspond à tous les hexagrammes de codage I-CHING.

7. Méthode selon l'une quelconque des revendications précédentes, dans laquelle la pièce métallique (5) est configurée en forme de disque, de préférence faite d'aluminium.

8. Méthode selon la revendication précédente, dans laquelle l'une des faces du disque présente un relief sous la forme d'un motif continu.

9. Méthode selon la revendication 8, dans laquelle le

relief est le motif identifié comme "la fleur de vie".

10. Méthode selon la revendication 8, dans laquelle le motif est une fractale. 5
11. Méthode selon l'une quelconque des revendications précédentes, dans laquelle l'amplification du dispositif d'amplification (3) est d'au moins 25, de préférence supérieur à 50, de préférence supérieur à 64. 10
12. Méthode selon l'une quelconque des revendications précédentes, dans laquelle les premiers récipients (2) sont des ampoules. 15
13. Méthode selon l'une quelconque des revendications précédentes, dans laquelle le processus de congélation pour l'un des récipients (2, 3) comprend la protection de chaque récipient au moyen d'une feuille d'aluminium. 20
14. Méthode selon l'une quelconque des revendications précédentes, dans laquelle l'ajout d'un motif graphique (1) sur la surface d'au moins un premier récipient (2) contenant le premier fluide de l'étape a) est appliqué en imprimant le motif sur un autocollant qui est à son tour collé sur le premier récipient (2). 25
15. Méthode selon l'une quelconque des revendications précédentes, dans laquelle l'antenne de sortie (4.2.1), de préférence lorsqu'elle est utilisée avec la partie métallique (5), comprend un aimant proche de l'antenne pour renforcer l'énergie transmise. 30

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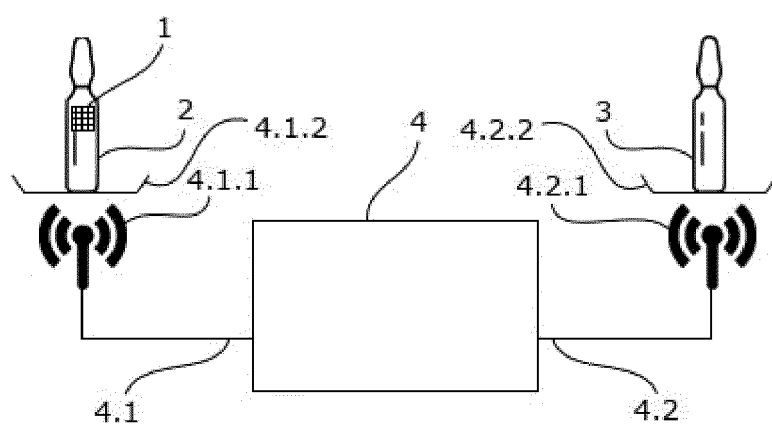


FIG. 1

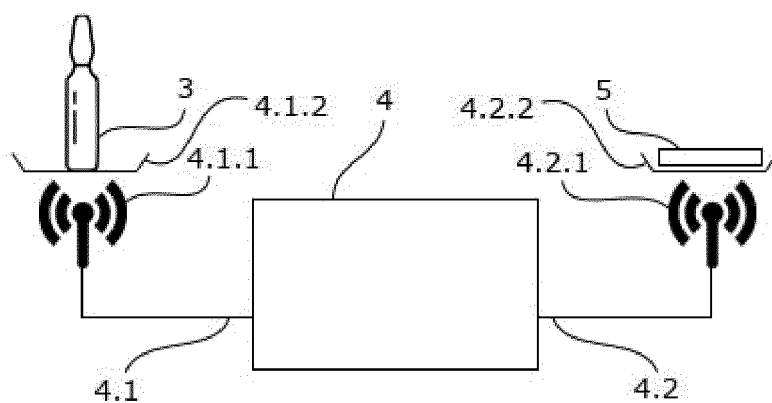


FIG. 2

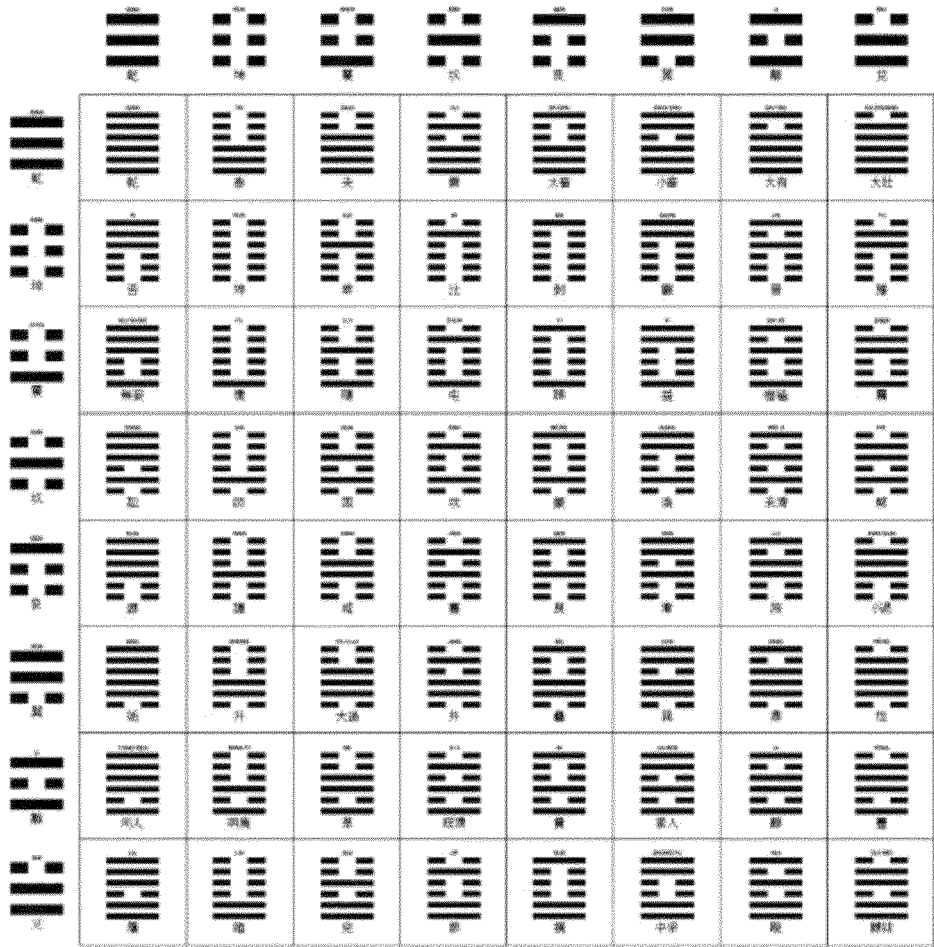


FIG. 3

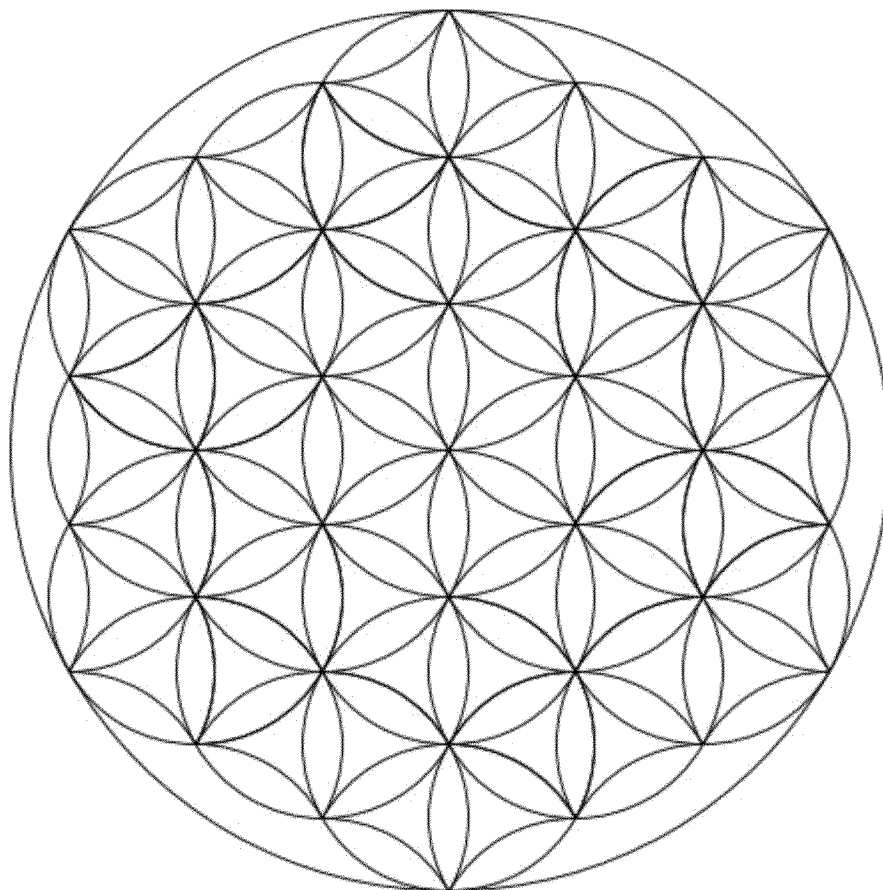


FIG. 4

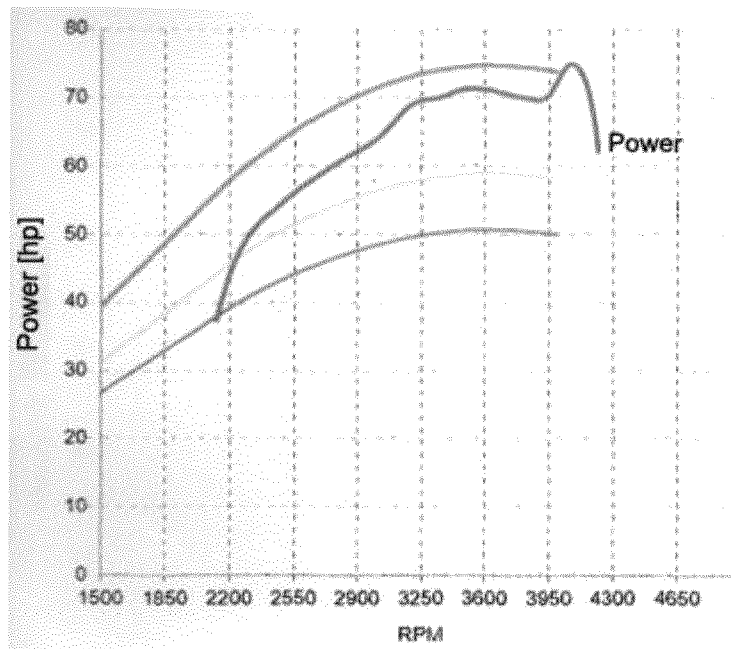


FIG. 5a

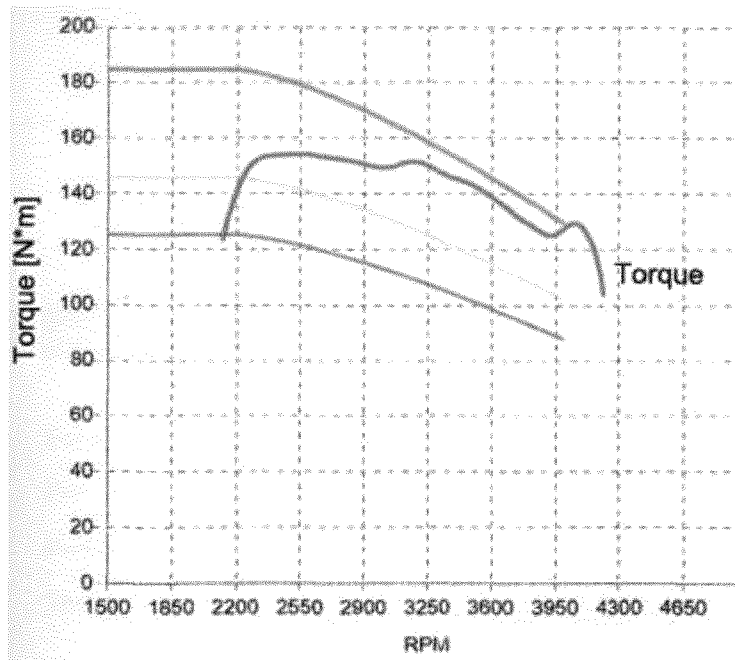


FIG. 5b

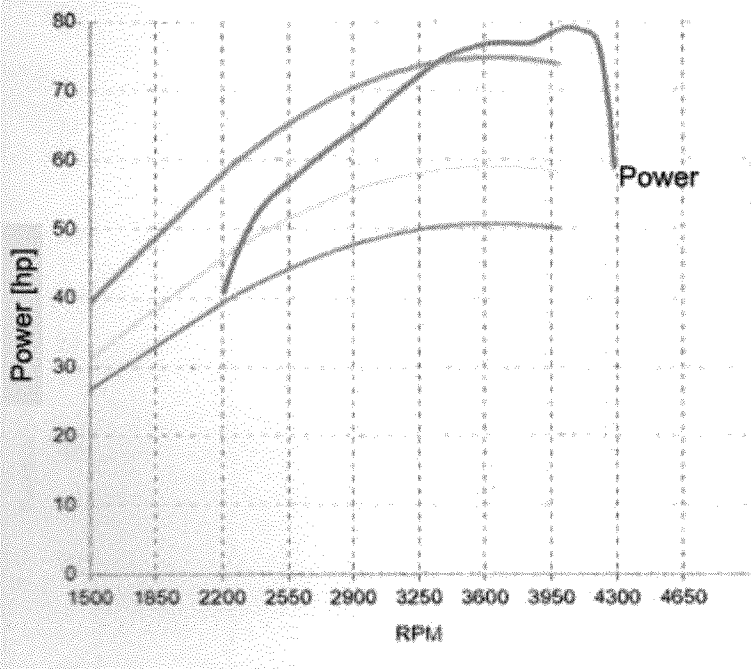


FIG. 5c

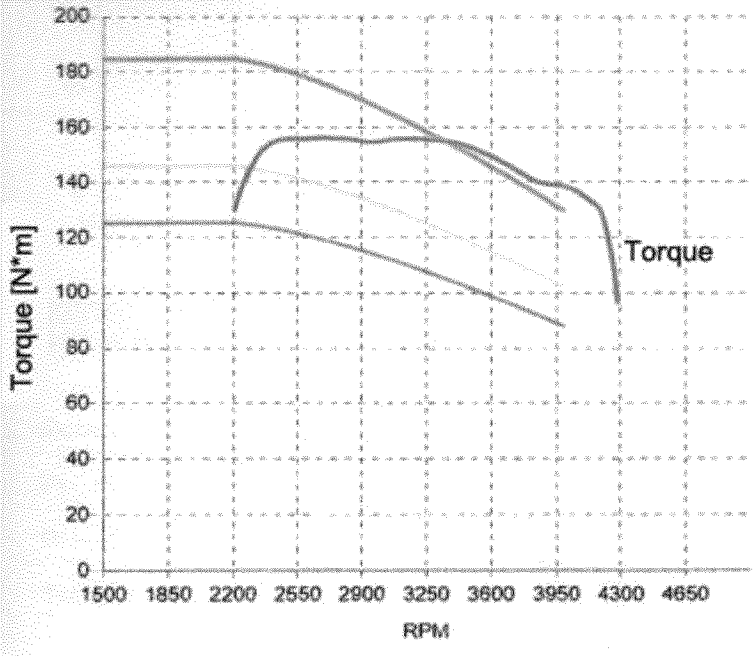
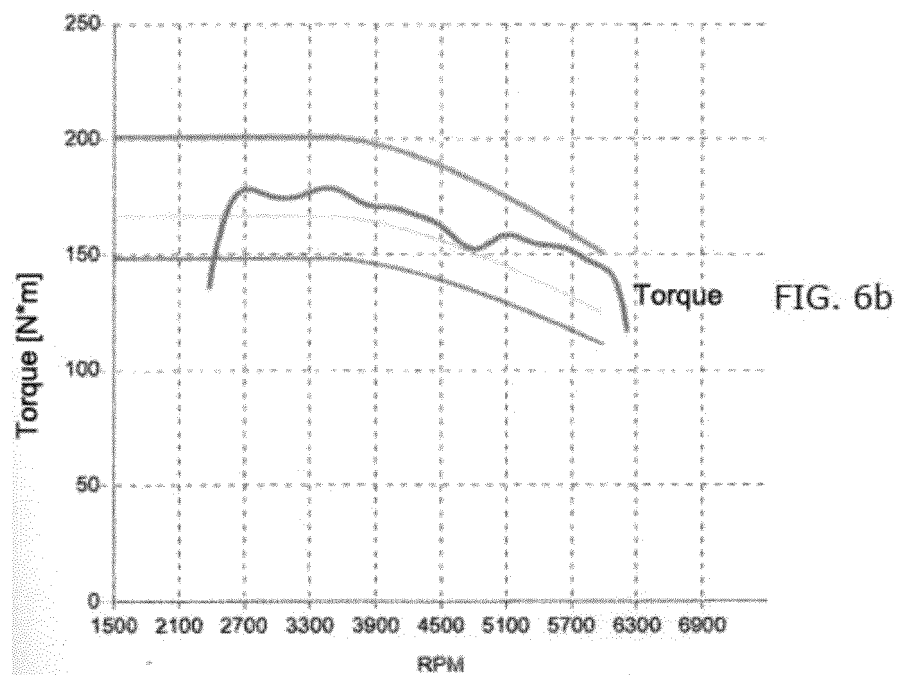
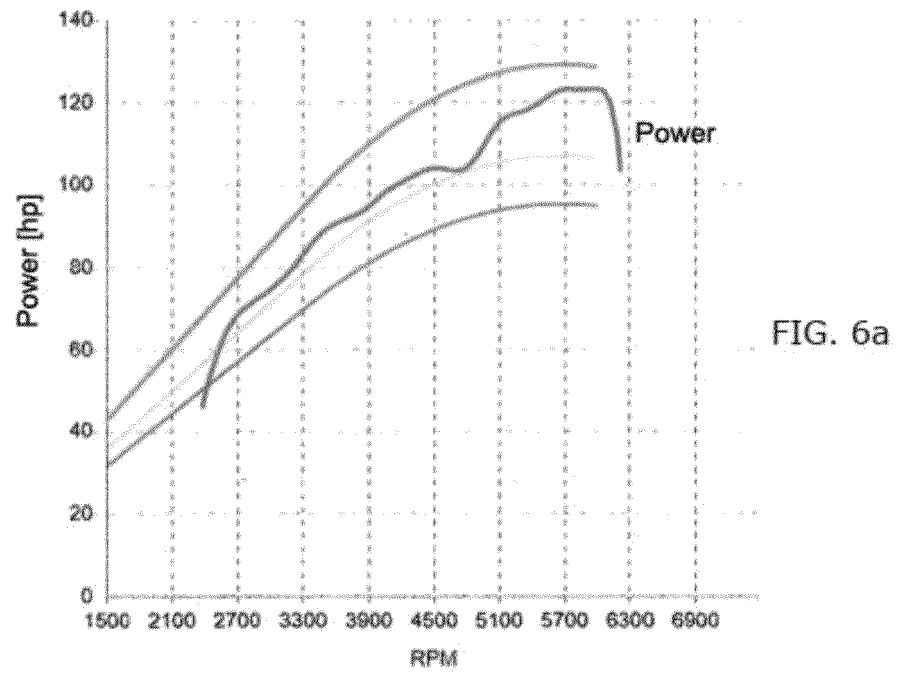
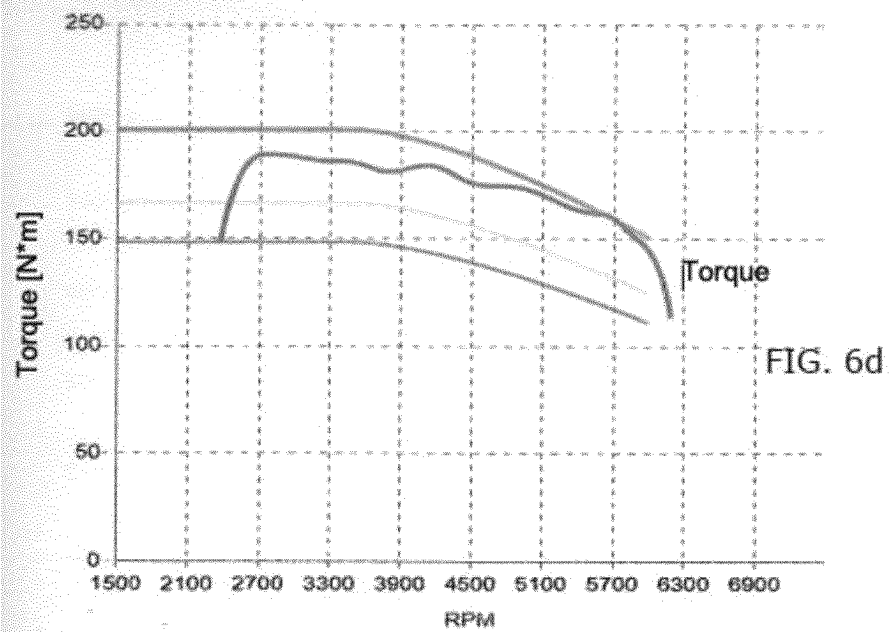
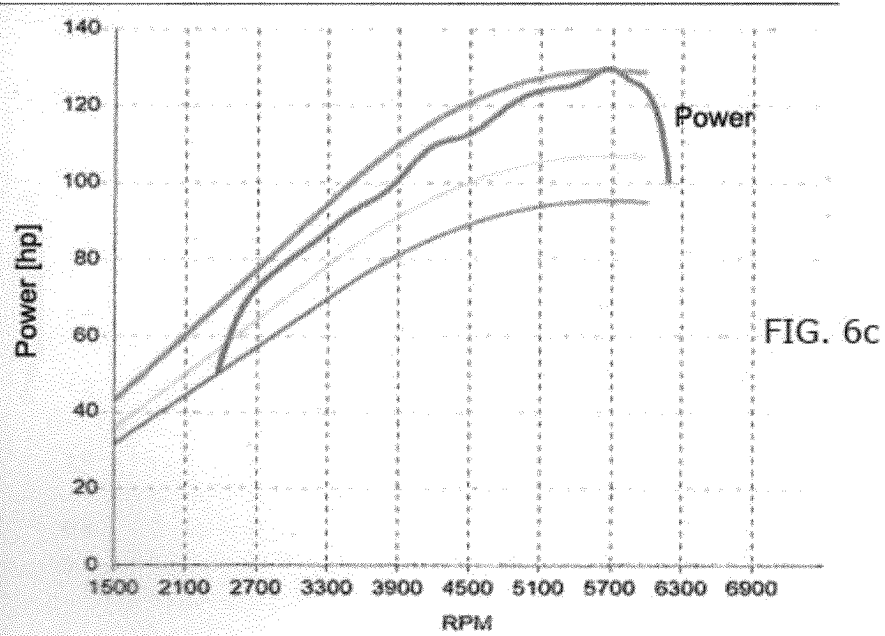


FIG. 5d





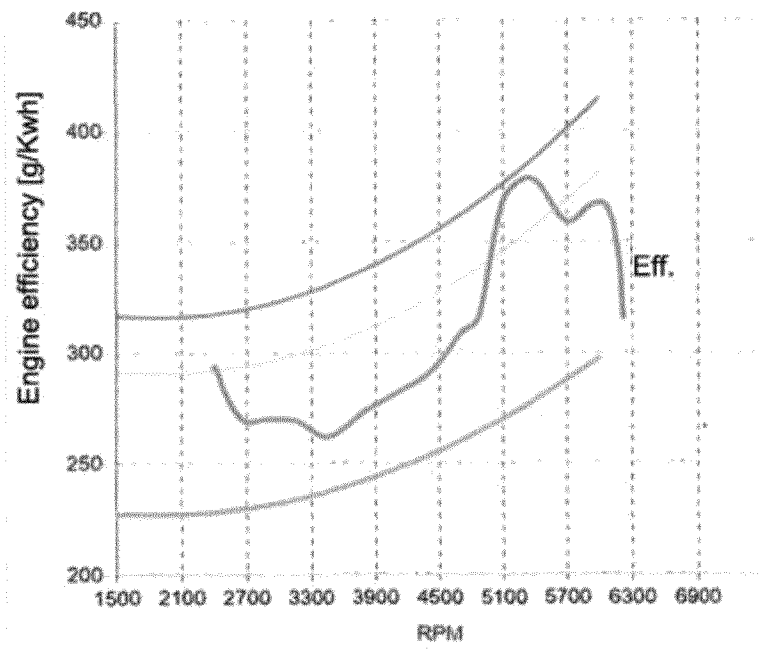


FIG. 7a

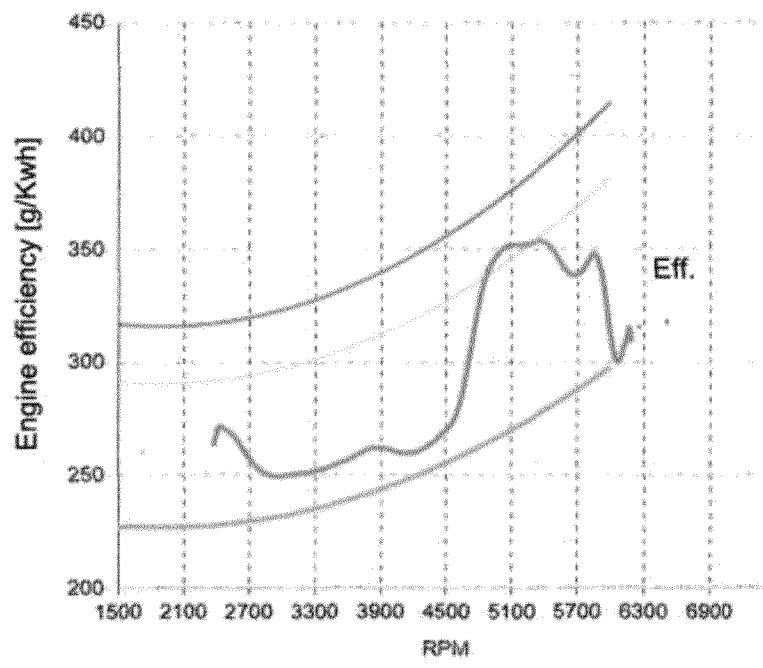


FIG. 7b