ELECTRIC POWER GENERATION SYSTEM HIGH FREQUENCY

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Considered:

Existing scientific views do not have a convincing theoretical basis for the phenomenon of excess energy output.

Power supply, Inductance, power, high frequency measuring range, filter, energy.

Currently, there is a lot of information about devices, after which "Activation" in whatever working field; in the process of "relaxation" output energy is in excess of input energy used.

For example, in the "production" of thermal energy observed in the oxygen-hydrogen electrolyzers for normal and heavy water (Filimonenko V., 1957, S. Jones, 1989), the electric discharger (Chernetskyy A., 1971), vortex heat generators (Potapov Y., 1992).
In the late 1980s S. Meyer patents "water fuel electric device "(WFC) that allows you to convert ordinary tap water into hydrogen and oxygen with far less expenditure of energy than required by conventional electrolysis, and in much greater quantity than expected with simple electrolysis. His explanation of the results is based on the resonant electric field effects on water molecules [2].

Later Don Smith built a number of devices based on Tesla's experiments, mostly with high output power. In his articles, he notes that he repeated each of the experiments found in the Tesla books, and this gave him an understanding of "ambient background energy "[3].

Objective. Repeat one of the above methods of obtaining energy. To test whether these devices really work we implemented the circuit of the Don Smith device from his patent of 1994, where the generator can achieve an output of 15 kW (Figure 1).

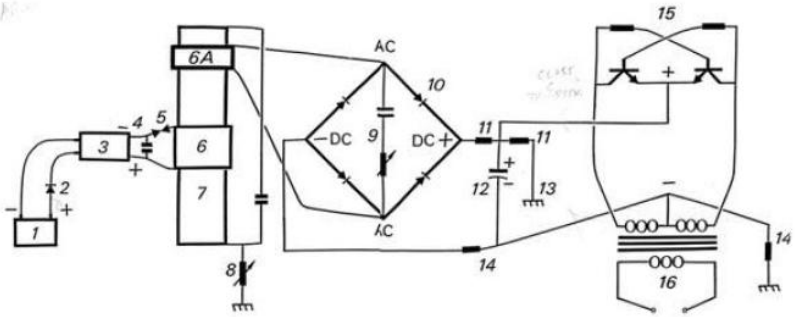

Fig 1 Schematic of electricity generator of Don Smith.
(according to his patent from 1994)

Basic materials and methods of research.

The main element in the schematic of Figure 1 is an air core transformer with the windings numbered 6 (primary), 6A (optional), 7 (secondary).

For the study we prepared Primary L1, secondary L2
and an additional L3 coil according to specifications given in the following table.

Coil Specifications

Specification	Primary *L1*	Secondary *L2*	Additional *L3*
Coil length, cm	5,5	32	6
Number of turns	8	463	10
Diameter cm	5,5	5,1	5,6
Active resistance, ohms	0,1	4,2	0,1
Copper wire length per winding, M	1,4	69,1	1,8
Wire diameter, mm	2	0,65	1,2

To calculate the electromagnetic parameters of the secondary coil L2 we used a program named "Flyback Tesla calculator".

Calculation results: L2

Coil inductance - 1559.9 uH; self capacity - 4.61 pF;
Length o73.2 m; number of turns - 457; quality factor - 8492;
resonance frequency AC - 1.875 MHz; and ¼ resonance frequency - 1, O24 MHz (Actual Experiment - 1.1 MHz).

The study was conducted according to the schematic in Fig. 2.

Placing of coil windings - as a Tesla transformer: primary on the base of the secondary.

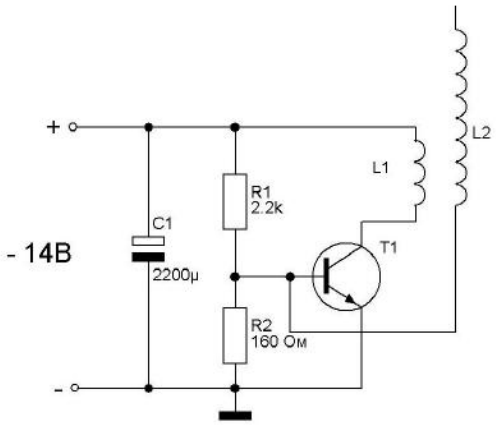

Fig. 2. Schematic of windings L1 and L2

Measurement of current was carried out by a DC ammeter on the PSU. Current consumption in the above schematic is 0.3 A. The value of voltage U2 to output ends of the winding L2 is calculated by the formula:

U2 = Um/N1.N2= 14/8.463 =810.25 V

where Um- voltage, 14 V; N1, N22 - the number of winding turns, respectively primary and secondary coils (see. Table).

Note. The formula does not take into account the resistance: pn junction transistor and connecting conductors.

Experimentally determined values of voltage- largest breakdown in the air gap between the initial winding ends at L2 point of discharge. The magnitude of the voltage was 500-700 V.
(Ed: I assume they got the Tesla coil to spark into the measuring probe)
Frequency: 1.1 MHz measured experimentally by the use of a frequency generator.

When connecting the circuit (see. Figure 2) to the constant power supply, power consumption was 0,3 x 14 = 4.2 W and this power can be called a complete network power consumption of 4.7 VA. On output of the L2 winding we obtain (at the base of the coil) current of about 0.3 A and a voltage between the two ends of the coil: 700 v which calculates to 0,3 x 700 = 210 VAR.
The study of high-energy parameters of the generator power circuit was conducted in Fig. 3-6 where a bulb was used as an active load. The

magnitude/intensity of lamp brightness determined the output power measurement.
Lamps used: various capacities from 0.3 watts to 21 watts.

Under the schematic of Fig. 3 switching in various incandescent lamps, for example 0.3 W, did not lead to lighting, although consumption of the circuit energy was 14 x 0,3 = 4.2 watts.

We placed an extra coil L3, as in Smith's schematic (Fig. 4). Coil L3 was placed in the upper third of the L2 coil.
Lamp specs: 6V, 3W ; was connected to an additional coil L3 (see. Table)- showed a subtle glow.

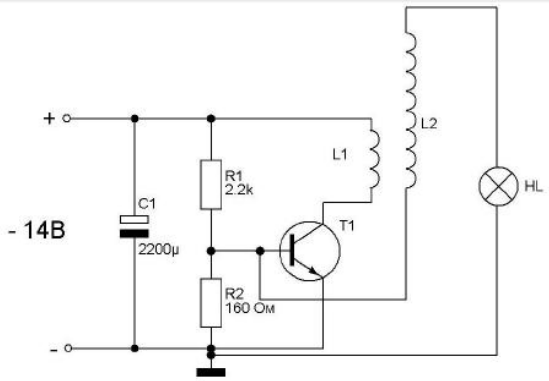

Fig. 3 Schematic of the experiment to determine the active power output of the L2 coil

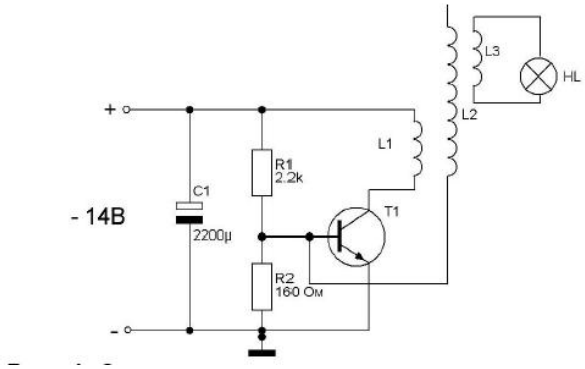

Fig. 4. Schematic: inserting various incandescent bulbs through additional winding L3.

When we inserted a capacitor C2 in series with the winding L2 (fig. 5): (We inserted a lamp with specification: 12 V, 21 W, on to the L3 coil output)

The lamp became brightly lit and in 4 - 5 seconds suffered burn out. Ammeter shows current consumption as net 1.2 A.

An analogous result was obtained when you switch in a tungsten lamp using the schematic in Fig. 6 in a series circuit L2 C2

Lamp specs: 12 V, 21 W; also suffers burn out in 4 - 5 seconds. The current in the lamp in this configuration was 1.8 - 2.3A.

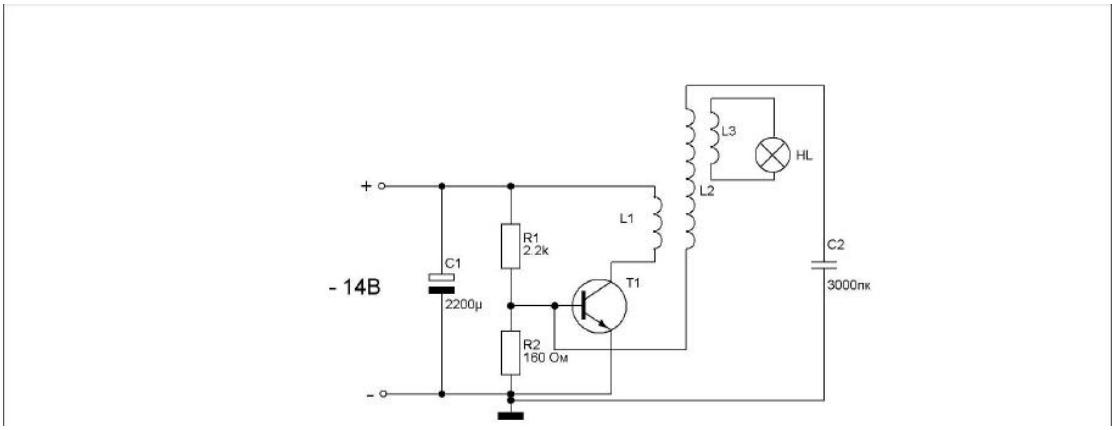

Fig. 5. Schematic: switching incandescent bulb(s) through additional winding L3 when creating L2-C2 path.

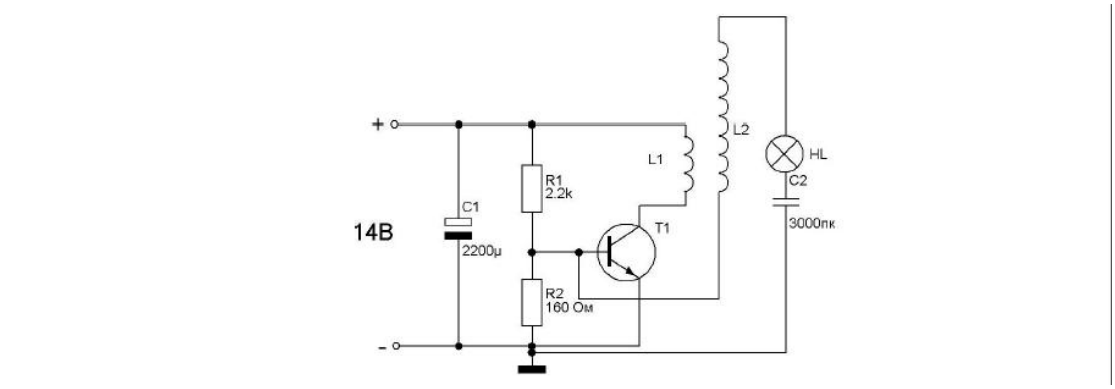

Fig. 6. Schematic: inserting an incandescent lamp in series through L2-C2

Conclusions

The results of exploratory studies confirm the existing scientific thought

that the processes of input and output routing/transmission of electricity using high-voltage high-frequency electromagnetic field (radiation) phenomena require further deep theoretical and experimental studies.

References

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2. Fominsky LP Rotary generators of free heat. DIY

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3. US Patent No. 08/100074 .

The phenomena of appearance of excess energy effects that have not found a convincing theoretical explanation from the standpoint of existing scientific views.