

Coler converter

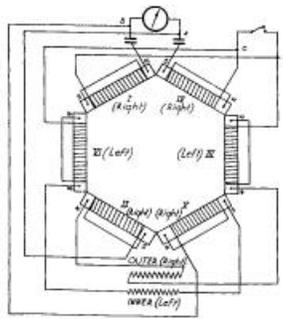


Fig. 2.

Very well-known equipment to the free energy is said the Coler converter or better the magnet current apparatus. Because Coler built two completely different devices. The generator in such a way specified is substantially more efficient, but no pictures or designs of its structure unfortunately exist. Thus the term Coler was brought to converters actually in each case with the magnet current apparatus in connection. It was already developed 1933 by the German captain Hans Coler. It consists of 6 magnets, which are arranged in a hexagonal form. Around the magnets coils are wound in different direction and the magnet are in such a way integrated into the electric circuit that it currentflowed through. All magnet/coils combinations are connected by two condensers a couple coil and a switch for tuning. After the very complex [tuning](#) the equipment up to max. 12V is to have supplied during one period of several months.

The exact function is not even Coler admits been. He explained it in such a way that it concerns with the ferromagnetism an oscillation phenomenon, whose frequency he indicated as 180kHz. That could be an allusion on the bark living effect. Because an alternating voltage of high frequency those develops is evenly only so unordered likewise in reality that it goes only as noise into action. The otherwise unordered bark living jumps could be brought by an external electrical and possibly also magnetic resonant circuit in consonance, so that they energize an oscillation.

The function of both devices was confirmed again and again in various reports. Regard in addition the following left:

- <http://www.geocities.com/CapitolHill/3752/hcoler1.htm>
- <http://www.geocities.com/CapitolHill/3752/hcoler2.htm>
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A further possible explanation, which does not admit in such a way however is, could be made by the magnetostriction in such a way specified. This effect is the periodic length variation of a magnet material, if it is exposed to a magnetic alternating field. To bundle itself by the characteristic of the lines of flux in the iron, an iron staff in the magnetic field at its diameter something squeezed together and thus accordingly longer.

This effect is used in the magnetostriction oscillator for the production [by](#) ultrasonic. E.g. a piece iron is exactly excited on its resonant frequency, which results from its length. In the iron the speed of sound amounts to approx. 6000m/s. around a 10cm long piece on the primary wave in resonance to bring, is therefore a frequency of 60kHz (= 6000m/s/0,1m) necessary. With the Coler converter is divided the magnet into thirds, over in these places nodes to cause is a 3 time higher frequency necessarily which then with the indicated 180kHz covers itself exactly.

Structure



In the following one now a building guidance of my model of the Coler of converter is aforementioned. It must be directly anticipated here that thereby still no tension could be produced up to now!

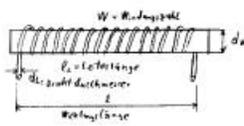
Over the exact structure unfortunately not very many details are well-known, which also a reason for the Nichtfunktionieren could be. Some data must turn out or select at least in reasonable dimensions.

Magnets

From the magnets it is only well-known that they were long 100mm. Since they are flowed through by the river, ceramic materials

separate, since these are not conductive. The statement of Coler that the ferromagnetism is to be used here, permits the conclusion that the magnets should be rather weaker, in order to permit in the dynamic case at all still another change of the field, because only then can bark living jumps occur. My choice much on AlNiCo of magnets nevertheless I could also imagine that it could function with hardmagnetic ferrous alloys such as chrome vanadium or silver steel.

Berechnung der Windungszahl beim Coler-Converter



$$R = W \cdot d_L \Rightarrow W = \frac{R}{d_L}$$

$$R_L = d_L \cdot \pi \cdot W$$

$$= d_L \cdot \pi \cdot \frac{R}{d_L}$$

$$A_L = \frac{d_L^2 \cdot \pi}{4} \quad \text{L. Querschnitt}$$

$\rho = 178 \frac{\Omega \cdot \text{mm}}{\text{m}}$
 $\rho_{Cu} = 56 \frac{\Omega \cdot \text{mm}}{\text{m}}$

Leitungs-widerstand:

$$R = \frac{l}{A} \cdot \rho = \frac{l}{\frac{d_L^2 \cdot \pi}{4}} \cdot \rho$$

$$= \frac{1}{\frac{d_L^2}{4}} \cdot \frac{d_L \cdot \pi \cdot l}{\pi} \cdot \rho = \frac{4 \cdot d_L \cdot l}{d_L^3} \cdot \rho = R$$

$$\Rightarrow d_L = \sqrt[3]{\frac{4 \cdot l \cdot \rho}{R}}$$

Angaben aus Text: $R = 0,33 \Omega$, $d_W = 10 \text{ mm}$
 ρ_{Cu} -Wicklung vorausgesetzt $\rho = 56 \frac{\Omega \cdot \text{mm}}{\text{m}}$
 $l = 70 \text{ mm}$ berechnete Länge angenommen

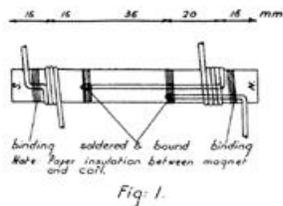
$$d_L = \sqrt[3]{\frac{4 \cdot 70 \text{ mm} \cdot 56 \frac{\Omega \cdot \text{mm}}{\text{m}}}{0,33 \Omega}} = 0,53 \text{ mm} = d_L$$

$$[d_L] = \sqrt[3]{\frac{\text{mm}^3}{\text{m}} \cdot \frac{\text{mm}^2}{\text{m}^2}} = \sqrt[3]{\frac{\text{mm}^3}{1000 \text{ mm}}} = \sqrt[3]{\frac{\text{mm}^3}{1000}}$$

Einheiten korrektur

$$W = \frac{l}{d_L} = \frac{70 \text{ mm}}{0,53 \text{ mm}} = 132 \text{ Wdg}$$

From the indication in the reports, such a coil would have a resistance of 0,30hm, can one in accordance with this formula, which by the way represents a completely nice Rechnerei similarly [to our](#) resistance cube, with given spulendurchmesser on the number of turns and the wire size reckon back. A wound length of 70mm with a coil from kupferdraht, the thickness of the insulating material between coil and magnet was accepted was neglected and the resistance of the magnet material with zero is accepted. That results in 131 turns with 0,53mm thick wire in this case in the case of 10mm thick magnet then. The next thicker enamelled wire, that are 0,56mm, was selected.



The magnets are wound in accordance with Fig.1. An end of the coil runs again back and is there directly connected with the magnet. The second connection of the solenoid coil is then farther back likewise attached on the magnet material. Pay attention, which it in Fig.1 around a in such a way specified "link themselves" magnet acts. The coil is left-handed applied. If one looks on a pole, it is by the way all the same on which (!), then sees one however a coil wound in the clockwise direction. That is the confusion in the reports with the definition in the clockwise direction is equivalent "left". Since Coler was a practical man, its designation always refers to the kind of rolling the wire up. The theoreticians however always regard the coil from the side, without remembering, how the wire is come up.

Magnets:	6 pieces of AlNiCo of round bars 100mm long, 10mm thickly
Coil:	110 turns with 0,56mm thick enamelled wire
Fishpaper:	90mm broad, 60mm long, 0,3mm thickly
Data of a solenoid coil:	Inductance: approx. 50μH D.c. resistance: approx. 0,30hm



Around the wires better at the magnets with a small grinding wheel two approx. 1mm will be able to solder deep slots on into the magnet cut. For soldering a suitable fluxing agent for iron and a high performance soldering iron should be used. The soldered connection must be absolutely examined after cooling off for its firmness, since generally the tin clings very badly on so highly

alloyed metals. The wires are then bent in accordance with Fig. 1.



Subsequently, the fishpaper is cut in such a way that the wires in the slots can be led out. The paper is then put to the coil in the respective sense of coil (!) around the magnet and covered with the coil.



The coil is einlagig and narrow-lying close to windings. At the end will the coil with a thread tapes, in order to prevent a rolling up. At the end where the connection of magnets, lying down, comes out the highest layer paper cut, so that the wire cannot affect the magnet at the end. To windings altogether 6 solenoid coils are, left-handed from those 2 and 4 right-handed itself. To consider also the polarity of the magnet is in the coil. See Fig.2.

Ouple coil



Over this construction unit there are unfortunately at all no data for dimensioning in the reports. Therefore only a reasonable number of turns can be selected compared with on the magnets. In consideration of the symmetry prevailing in the circuit one tried to keep approximately alike both coils in its inductance. The diameters of the two coils are approximated so far as possible together, in order to achieve in the completely pushed in condition the max. possible ouple factor. Reduced the coupling can become by shifting the coils to each other still!

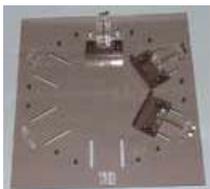
Both coils are wound on PVC pipes and the outside is provided with appropriate mounting plates, so that it can be pushed along the threaded rods over the internal coil. like already with the magnets, the sense of coil pay attention. The data of Coler are again, those practice closer, therefore describe the wickelsinn of the wire when applying.

Internal coil (left-handed)	70 turns with 0,8mm enamelled wire, on 40mm thick PVC pipe Inductance approx. 90µH
Exterior coil (right-handed)	45 turns with 0,8mm enamelled wire, on 50mm thick PVC pipe Inductance approx. 80µH

Condensers

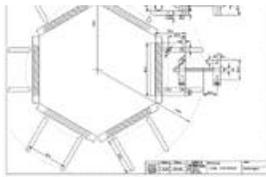
The two condensers are selected in such a way as last construction unit that they produce one point of resonance in the circuit with approx. 180kHz. For the dimensioning indicated here with closed switch with approx. 5nF the case is. Two 5,1nF Styroflex condensers were selected.

Mechanical structure

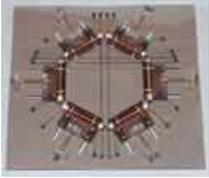


The baseplate and the magnet mounting plates are manufactured from cloudy plexiglass (Makrolon). All metal parts such as screws and threaded rods are manufactured from brass, in order to avoid an influence of the magnets by metal parts.

13 0 10/2002 1/16 5mmx5mmx1.5mm



In accordance with this design in the baseplate 12 long holes are milled, in which then the guide pins (= 6mm spacer) for the 6 schuber run. The schuber can be pulled over a threaded rod and a wing nut on the end apart.



The solenoid coils are installed onto the schuber with cable strap and their connections on bases are put. The solenoid coils are connected then on the basis the circuit in Fig.2 with one another and with the remaining construction units. In order to be able to manufacture the connections more easily, lines for the cross connections are strained under the baseplate. To consider are also the correct coil direction and the connection of the couple coil.

Measuring instrument

With the arising tension is to be counted on an alternating voltage or at least pulsating DC voltage in the order of magnitude of some millivolts and on a frequency from 180kHz to. That places many measuring instruments before a problem. With a Oszi it is probably the safest method. But one will not have always switched that on, if one makes tunings for several days. If a Oszi is used, then are to be always switched a load resistance parallel to the probe. Because the circuit of the Coler of converter is to be co-ordinated with opened switch then only on the capacity of the Oszi with resonance. If one closes the switch, then nothing more is correct. Same applies also to all high impedance digital measuring instruments.

With this model I used a μA meter (moving coil measuring instrument) with $500\mu\text{A}$ full-scale in connection with a half bridge. This exists the diodes in a bridge leg of two Schottky diodes 1N5819 and in the second branch is replaced by two 220 Ω of resistances. The durchlassspannung of the bridge reduces to half. With this arrangement it is still possible to dissolve 60mV (!) for alternating voltage with a scale part.

Viele analoge Messgeräte verwenden wegen des geringeren Spannungsabfalls nur eine Einweggleichrichtung. Das hat zur Folge, dass sich ein Kondensator, der in Serie zum Messgerät liegt auf den Gleichrichtwert der Spannung auflädt und so fast keinen Wechselstrom mehr fließen lässt. Genau das ist aber bei geöffnetem Schalter im Coler Konverter der Fall !

Abstimmung

Die Abstimmung wird von Coler selbst als sehr schwierig beschrieben. Es sollte bei geöffnetem Schalter und minimalen Abstand zwischen den Magneten begonnen werden. Durch Verstellen der Koppelspule wird die Abstimmung versucht. Bei erfolglosem Versuch werden die Magneten weiter voneinander entfernt und es wird dann mit der Koppelspule wieder neu abgestimmt. Erst wenn eine Spannung am Voltmeter auftritt, wird der Schalter geschlossen und dann unter weiterer Vergrößerung des Magnetabstandes und Abstimmung der Koppelspule die Spannung maximiert.

Man kann das ganze sozusagen im Trockenem üben, wenn man mit Hilfe eines Frequenzgenerators ca. 180kHz in das System einspeist. Um keine zu starke Verstimmung durch den Generator hervorzurufen, empfiehlt es sich, eine zusätzliche Windung über die Koppelspule zu legen und an dieser dann den Frequenzgenerator anzuschließen. So lässt sich das Verhalten der Schaltung mit unterschiedlich großen Kondensatoren und die Auswirkungen des Schalters sehr gut testen. Es sollte eine Dimensionierung gefunden werden, wo in beiden Schalterstellungen ein Resonanzpunkt bei etwa 180kHz auftritt und bei geschlossenem Schalter eine höhere Spannung entsteht. Zu beachten ist auch, dass sich der Innenwiderstand des verwendeten Messgerätes sehr stark auf den Resonanzpunkt auswirkt. μA -Meter sind im Allgemeinen sehr niederohmig ! Es sollte also immer jenes Messgerät verwendet werden bei dem man den Resonanzpunkt gemessen hat.

Der Coler Konverter soll uns zeigen, dass im Magnetismus mehr steckt, als eine schlichte Feldform. Er kann als aktive Energieform angesehen werden, die in ganz bestimmten Fällen angezapft werden kann. Die [Barkhausensprünge](#) könnten dabei ein Schlüssel zum Tor der Freien Energie sein. 

