Final report
Investigation of the
- Kinetobaric Effect –
or
Mechanical Energy from Gravitational Anisotropy (MEGA)

after Rudolf G. Zinsser
and W. Peschka

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1. **The experimental setup according to Rudolf G. Zinsser**

1.1. **Theory**

In the middle of the 20th century Rudolf G. Zinsser developed a theory about "Kinetobaric forces"or "mechanical energy from a anisotropic gravitational field (MEGA)". Zinsser stated to have caused, by implementing a new physical method, the release of a unknown process that generates a drive impulse (a so-called angular momentum) This drive impulse can be converted into mechanical energy. See links: [http://www.rexresearch.com/zinsser/zinsser.htm](http://www.rexresearch.com/zinsser/zinsser.htm) and [http://www.r-j.de/kinetobarik/kineto01.htm](http://www.r-j.de/kinetobarik/kineto01.htm).

R. Zinsser converted his theory into an experiment, by installing high frequency line component elements (e.g. quarter-wave transmission lines) in a waterchamber (activator), which was mounted on a torsional pendulum, linking into these elements (very small) high frequency energy. This caused a so far unknown "trigge energy “ changing the gravitational
characteristic of the activator. This behaviour was observed by the drive impulse. In the seventies W. Peschka (of the DFVLR) reproduced the experiment and confirmed R. Zinsser’s results.

1.2. Description of the original assembly of R. Zinsser and W. Peschka

1.2.a. Description of the bifilar torsion balance rotating scale and the measuring instrument

A bifilar torsion balance was used to exclude material influences of the hanging wires (see fig. 1). The material of the bifilar torsion balance as well as all other parts are not ferromagnetic or paramagnetic, essentially they consists of aluminium and brass. The suspension made of 0.3 mm high-grade steel wire. The entire bifilar torsion balance is encased to exclude outer air movements.

The deflection of the bifilar torsion balance is registered via a lighting mechanism, mirror and detector. The detector has a photoelectric cell arrangement, accepting the ray of light. The light path length amounts to 7 m. The sensitivity of the torsion balance related to the detector amounts to 25 dyn cm/cm with 7 m optical path. The balance was aperiodically absorbed by oil and a damping wing. The undamped natural oscillation time amounts to 120 s.

![Fig. 1](image)

P = sample, G = weight, S = revolving mirror, D = oil absorption, L = articulated suspension: B = detector (see follow-up circuit), s = light path (7 m); A = source of light
The linking of high frequency to the activator was made capacitively by air capacitors on the activator mounted on the balance arm. (Some attempts were inductively linked) [4]. The HF tensions were effectively approximately 10 V. They were within the range of 20 micro Watts up to some 100 milli Watts. For high frequency production we used a push-pull oscillator, able to actuate a push pull amplifier. Generally however the power amplifier was not used, only that portion of high frequency coming from the oscillator over the grid/anode capacitance of the power amplifier into the experimental assembly (voltage factor about 100 to 200). The total performance of the push-pull amplifier at full exitation amounts to 20 to 50 Watts. Using the power-output stage, no further increase of the effects could be determined so far during the already accomplished experiments (saturation feature). Therefore a majority of the experiments were performed without an amplifier and low performance. Frequency measurements were made wit eight-digit digital frequency counters.

1.2.b. Test results (excerpts) by R. Zinsser/W. Peschka

The test results follow:

The input of adequate H-F energy on certain samples has a force action on the sample. The forces measured by us with a special torsion balance lay within the range of 10 dyn. We assume that a larger force is possible, according to records of R. G. Zinsser; in rare cases a force of up to 1500 dyn was observed over several hours. Frequency ranges must be kept exactly, since they are probably discretely distributed and can entail a particular response of the sample. Exact compliance with the respective frequencies is necessary. The frequencies used lay within a
range of 30 to 40 MHz, 120 to 130 MHz, 200 to 350 MHz. During a sinusoidal waveform feed no dynamic effects occurred. Apparently harmonic wave portions are necessary.

Typical long-term effects with overlaid short time effects: (see Fig. 3):
The short time effects are partly overlaid by intentional high frequency energy input (3. and 5. row from above), and partly by the influence of outside high frequency disturbances (2. and 4. row from above).

![Fig. 3](image)

Consequences regarding dynamic effects:

Although the forces proven so far did not reach values as they occur, for instance with electrical engines, their presence however offers a so far unknown force for which a meaningful conformity with the axioms of mechanics must be found. This is cause enough for further investigations - also regarding new, very unorthodox propulsion principles.

For instance, for samples that had been exposed 120 s to a high-frequency field and an energy flow of approximately 1 milli Watt, a force effect of between 5 and 10 dyn was observed over 2 hours. This corresponds to a stored impulse of 3.6*10e4 or 7.2*10e4 s. This value exceeds conventional drives by around several powers of ten. This fact alone provides sufficient ground to examine this phenomenon further. Of course we must try to answer the question to what extent this phenomenon is related to well-known physical effects. A careful analysis of all possibilities shows however that so far there is still no physical effect able to explain this phenomenon. Initial attempts were made to explain these dynamic effects through torques which arise from atomic “spin–orbit-coupling” processes (variation of torque-impulses) - for example with nuclear spin resonance and/or dipole-dipole resonance. This hypothesis could be valid if supplied with high frequency energy corresponding closely to appropriate resonant frequencies in the sample. A spin orientation could
arise which is reduced with an appropriate relaxation time and according to the change of angular momentum of torques. Thus dynamic effects on the sample would arise and connections to the nuclear spin resonance would be given. Exact investigation of the effects showed however that a force and not a torque is present. The excursion of the torsion balance depends on the orientation of the sample in the balance, which demonstrated clearly the existence of a force effect.

This is a summary of the experiment of R. Zinsser and W. Peschka.

Our task at the IGF consisted of reproducing the experiment and the effects and in the ideal case, confirming the theory.

2. Experimental setups at the IGF

2.1. First version, exact "Cavendish Balance"

2.1.1. Structure according to R. Zinsser’s original (mass, material, weight, etc.)

Utilized aluminum profiles (see fig. 4):

![Sketch of the torsion bar](image_url)
Einzelheit:  

Edelstahldrähte 0,3 mm, 2000 mm lang

2 x U-Profil je 1000 mm

Winkelprofil, doppelseitig, je 500 mm, zur Verbindung der beiden U-Profiles

Beton gewichte, pro Seite ca 297,7 gr

Öl-Paddel

Schnitt: A:B

Einzelheit: A

Detail A and cut A:B (see fig. 6 to 8):

fig. 5

fig. 6
Schnitt: A:B

fig. 7

Einzelheit: A

Edelstahldrähte 0,3 mm
20mm
2 x U-Profil, je 75 mm lang
2 x Befestigung der Edelstahldrähte

fig. 8

Details picture A (see fig. 9 to 11)
fig. 9

fig. 10  horizontal adjustment

Fig. 11  with oil damping
Suspended torsion bar, without weights and oil damping (see Fig. 12)

Torsion bar with weights, oil damping and plastic draft protection film (see Fig. 13)

The structure, consisting of aluminium profiles, brass screw nuts etc, weighs 1764 gr (without deflecting mirrors, high-grade steel wires and concrete weights).
2.1.2. Description of the laser evaluation unit to measure the deflection

To determine the deflection of the torsion bar we used a laser evaluation unit. Description:
A laser pointer (in this case a laser water balance, see Fig. 14) at a distance of 7 m from the torsion bar, was mounted under the ceiling. The laser points to the deflection mirror (see Fig. 8 and Fig. 11), which throws the laser beam back on the wall 7 m away. The light path amounts to 14 m total. The laser sends a beam to a 65 cm long detector which is equipped with 256 photo transistors and manufactured at the IGF. Each of these photo transistors cover a range of 2.54 mm (650 mm/256 = 2.54 mm) all are connected to a Conrad C-control-system.(see Fig. 15 and 16). The C-control-system detects which photo transistor is presently lit up by the laser beam and sends the number of the transistor as a numerical value into a txt file, evaluated by Excel. The photo transistor at the left end of the detector is no. 1, and the right end is assigned to no. 256. The clock pulse amounts to 100 measuring steps per minute, each measuring steps consists of a measured value followed by a equally long break.
I.e. per minute, 50 measured values and 50 recesses are taken.
Diagrams that display recesses, have an annotation on the axis label.
2.1.3. Investigation of system performance

The basic principle of significant measurements is to investigate the behavior of a system in a passive state. In determining how the torsion balance system behaves without external influence, we constructed an "original" Cavendish experiment, for the time being without large "diverting" masses. To both ends of the torsion balance, small cylindrical concrete weights, each 267.7 gr per side, were attached, the mass arbitrarily selected. Quickly we noted that the system showed uncontrolled movements, causing
relatively large deflections on the laser evaluation unit. These deflections are within a range of 55 photo transistors, i.e. approx. 14 cm, without external influences.

2.1.4. Investigation of interference

2.1.4.a. Required air draft protection

Soon we noticed that the air movements within the laboratory were the main reason for deflection of the torsion balance. Even if doors and windows were closed and nobody agitated the air in the laboratory, the keyhole draft was enough to deflect the system. Therefore we packed the torsion balance completely into a rectangular wooden frame, covered with a transparent foil. Only two small openings were left, one for the two high-grade steel wires, the other one for the laser beam. (see Fig. 13).

The air movement protection foil shows positive results (see Fig. 17). This particular diagram shows the result of one experiment with cylindrical concrete weights of each 267.7 gr at the ends of the torsion balance. The experiment ran from Friday, 10.10.03, 18:45 hrs until Monday, 13.10.03, 14:10 hrs. The diagram clipping refers to Sunday, 12.10.03, from 10:45 hrs to 15:45 hrs, during that time nobody was in the laboratory and/or in the entire building.

A closer view, a time clip from 14:15 to 15:15 hrs (see Fig. 17)
Conclusion from Fig. 17 and Fig. 18:

A clear reduction in deflection of maximum 18 photo transistor units was achieved by encapsulating the torsion balance with an air movement protective foil. Fig. 17 (and Fig. 18) shows a typical example out of a series of 40 tests, lasting between 30 minutes and 62 hours (3 days), for a period of approx. 12 weeks.

The direct cause of deflections, as well as their irregularity, is not influenced by air motion within the laboratory anymore.

2.1.4.b. The necessity for damping oil

Using damping oil (see Fig. 5, Fig. 10 and fig. 11) in addition to the air movement protective foil, we determined a further, very clear, decrease of deflection. In particular a trembling noise occurred if someone ran on the concrete floor above the laboratory were the torsion balance was hung which was compensated for by the damping oil.
Comparison: Pendulum amplitudes of the torsion balancer without and with air movement protective foil and/or damping oil. Observed during a limited period of time, maximally 5 hours (see Fig. 19 A):
Fig. 19 shows that the deflection of the system with air movement protective foil and damping oil declined to 1 to 2 photo transistors. At 09:00 hrs a series of measurements was initiated. At 10:00 hrs a “diverting” concrete mass (each 2.7 kg), was placed within a distance of 1 cm from the concrete masses at the ends of the torsion balance (see also Fig. 20). The air movement protective foil had to be opened and closed again, producing disturbances, and the high peaks as a result.

Between 09:00 hrs to 10:00 hrs the transistor unit oscillates. After adding additional masses at 10:00 hrs a transient oscillation took place followed by a stand still.

The torsion balance moved toward the masses. At 11:30 hrs the two 2.7 kg masses were removed, a transient oscillation took place followed by oscillation of 2 transistor units.

The average value until 10:00 hrs amounts to 115.50 transistor units, at approx. 10:15 hrs until 11:30 hrs 116.00 transistor units, from approx. 11:40 hrs until 12:30 hrs 115.59 transistor units.

These results indicate a mass attracting effect after Cavendish.
Fig. 19 b

Conclusion out of Fig. 19 b:
16 oscillations occur during a period of 27 minutes which mounts to a period duration 101.25 seconds average.

Period duration with air movement protection foil and damping oil. See fig. 19 (Results see fig. 19 C):

Fig. 19 C

Result from Fig. 19 C:
A correct indication of the period duration due to the damping oil effect is not possible in this case.

### 2.1.6. Possible Cavendish effect

**Aufbau als Cavendish-Versuch**

![Diagram of the Cavendish setup](image)

**Fig. 20**

Our focus was not the Cavendish effect. We used it to get acquainted with the system parameters. Therefore we examined the Cavendish behavior intensively.

At this point a remark pertaining to the laser evaluation unit:
After each alteration of the torsion balance the "zero-level" of the system changed. Therefore the laser point did not always cover the same range on the phototransistor detector bar.

To determine if the (alleged) Cavendish effect without damping oil could be better detected, we run several test series using only air movement protective foil. The following changes were made on the structure.
- The two diverting concrete masses weighing 2.7 kg each were replaced by two lead masses of 12.5 kg each.
- The air movement protective foil was changed and placed between the masses at the torsion balance and the diverting lead masses.
  The lead masses were outside of the air movement protective foil.
  This had the advantage that when changing the diverting lead masses the air movement protective foil did not need to be opened each time.
- The distance between the masses on the torsion balance and the lead masses amounted to 2 cm now, twice as much as before.

During 01.Sep.03 to 07.Sep.03 several measurements were processed and
evaluating tables and diagrams calculated by hourly average values. Considered during evaluation were only the times from 00:00 hrs until 07:00hrs, with minimum outside disturbances (see fig. 21 to fig. 26).

1. Series of measurements: Only with the concrete masses on the ends of the torsion balance (without diverting lead masses, see fig. 21)

![Stündliche Mittelwerte]

Fig. 21

2. Series of measurements (see Fig. 22): With the concrete masses on the torsion balance and diverting lead masses, at the N-end on W-side as well as on the S-end on E-side:
Conclusion: Test series 1. and 2.

The deflection of the torsion balance reacted toward the expected direction (toward the low numbering of the photo transistors).

3. Series of measurements see (fig. 23): with concrete masses only at the ends of the torsion balance (without diverting lead masses):
4. Series of measurements (see Fig. 24): With concrete masses at the torsion balance and diverting lead masses, at the N-end on E-side and S-end on W-side. On the opposite side as seen at measurements 2:
Conclusion: Measurements 3. and 4.:

The deflection of the torsion balance took place in the expected direction (toward the higher numbering of the photo transistors (contrary to test series 2).

5. Test series (see fig. 25): Only with concrete masses on the torsion balance (without diverting lead masses):

Fig. 25
6. Measurements see (fig. 26): Again only with the concrete masses on torsion bars (without diverting lead masses):

**Fig. 26**

**Result out 5. and 6. Series of measurements:**

The deflection of the torsion bar took place as expected at zero-position.

**Perceptions from measurements 1 to 6:**

Deflection took place in the expected direction, however the measured excursions are very small. The difference of deflection, related to the respective maxima of the average values, amounts to about 1.6 transistor units on 14 m laser distance. Nevertheless the value has a 1.6 significance value,. Each diagram (every 7 hours) had approx. 21,000 measured values (plus pauses). The value of 1.6 is a quite "rough" resolution (related to a photo transistor) balanced over the statistics. The value of 1.6 photo transistor units corresponds to approx..4 mm. Magnetic influences can be excluded due to the characteristics of the utilized materials.

It would be very unprofessional due to the 7 measurements specified, to clearly, verify the Cavendish effect with our system, although the indication exists. Gradually it was clear to us that we had built a relatively sensitive system.
2.1.6. Possible tidal influences

To determine possible tidal influences we proceeded as follows:
Since the moon causes the strongest tidal influences on earth, we primarily examined a possible influence of the moon.
We evaluated again the 40 measurements pointed out in 2.1.4.

To reiterate: The measurements extended over a period of approx. 12 weeks (29.July.03 to 17.October.03). Individual measurements lasted, depending on the measurement, between 30 minutes and 62 hours. To each side of the torsion balance concrete weights 267.7 gr. were attached. There were no diverting masses near to the torsion balance. The structure was within the air movement protective foil. We did without damping oil.

In the oscillation diagrams the following possible impacts on the vibration behaviour were examined:
- moon - rise - and set ,
- moon phases ( proportionally increase / decrease
- waxing or waning moon

We determined phases of nearly complete standstill and phases with relatively high deflections.
We also examined the oscillation duration of the system except in times of quiet or relative quiet.

Conclusion:
When viewing the oscillation amplitude as well as the period of oscillation no relation could be derived with the behaviour of the moon or with moon cycles.
The moon was definitely not the reason!

2.1.7. Room temperature dependence

Diagrams (Fig. 27 and Fig. 29) show typical oscillation samples, each during a period of 4 to 5 hours:
At first we could not clarify what the reason was for the amplitude change. As previously mentioned the amplitude changes vary between 0 transistor units (in calm phases) and 18 phototransistor units in intensive phases. The oscillation duration was within a range of 100.0 seconds up to 103.5 seconds.
Approx. 3 months later we were able to clarify the cause of the high oscillation amplitude definitely.

The key to it was the permanent measurements and recording of the room temperature.
As diagrams fig. 28 and fig. 30 show, a connection exists between "faster" changes of the room temperature (e.g. by temperature peaks) and high peak-to-peak swings. Although only two examples are present, the above correlation is at all times reproducible as previously mentioned, the cause was determined later (see points 2.2.4 and 2.2.7).

Changes in oscillation duration had no connection with moon movements. The diagrams fig. 31 and 32 show typical oscillator duration. In order to recognize the oscillation duration better, each diagram represents a period of 1
2.2. Second experiment: assembly according to Zinsser, without HF activation (with water chamber and antenna)

2.2.1. Assembling and investigation of the system performance

The drawings, sketches and photos of R. Zinsser and W. Peschka assemblies, displayed cuboid shaped as well as cylindrical shaped chambers, with water and antenna. Therefore we conducted our investigations with both designs (see fig. 33 to fig. 36).
The cuboid shaped chamber (with rounded off corners) made of plastic (see fig. 33 and fig. 34) is 125 x 215 x 85 mm large. It was half filled with (approx. 1 litre) tap water. The total weight of the sample amounted to 1208 gr. The antenna was completely in the water.

The cylindrical chamber (slightly conical) had the following dimensions: Height 110 mm, middle diameter 70 mm, completely filled with tap water also having an antenna inside. Total weight: 538 gr.

The two samples were fastened in turns on the S-side of the torsion balance. Opposite to it an appropriate counterweight had to be placed. The tests were always accomplished with air movement protection foil and damping oil. (see schematic structure fig. 37)

After each direct change on the torsion balance, the laser evaluation unit had to be aligned for the measurements. Therefore the structure swings after the changes from a new zero-point.
After each direct modification to the torsion balance, we let the system rest at least 12 hours to swing and "hinge in". Among these changes no diverting masses are added, since this had no direct actions on the torsion balance.

During 23.October.03 up to 17.March.04 (approx. 5 months) we accomplished 186 measurements. The shortest took 2 hours, the longest 9 days. during all these measurements we did without HF, in order to learn as much as possible about the characteristics not attributable to HF.

Fig. 38 to 40 A show typical oscillations responses of the structure.
Fig. 38 A

diagram showing a graph titled "Andere Y - Skalierung" with data points from 04:50 Uhr to 09:50 Uhr on Samstag, 01.11.03.

Fig. 39

diagram showing a graph titled "ohne ablenkende Massen" with data points from 07:23 Uhr to 12:23 Uhr on Freitag, 21.11.03.
Fig. 39 A

Fig. 40
Conclusion:
No significant oscillation periods due to damping oil could be determined. The behavior of the cuboid shaped and cylindrical chambers were quite identical. The amplitudes of the pendulum swings went to approx. 3 photo transistor backwards.
As mentioned under point 2.1.6., the cause of the oscillating motions during these tests were unclear to us. A coherence with room temperature turned up later.

2.2.2. Possible Cavendish effect

The evaluation of the 186 tests from October to March did not indicate a possible Cavendish-effect with this version of the system. Due to the fact that both the masses fastened to the system (sample and counterweight) were noticeably higher under point 2.1.6. (e.g. 1208 gr each side, previously 267.7 gr each side), the distances of the masses fastened to the system to the diverting masses were also larger (approx. 5 to 6 cm, approx. 1 to 2 cm).

2.2.3. Possible tidal influences

Since part of above mentioned 186 tests, in chronological order, resulted in an almost complete documentation from 23.10.03 to 10.02.03, we marked on the diagrams as follows.

- moonrise - and fall times
- moon phases (proportionally waning moon - and waxing moon)
- falling or rising moon

The total lunar eclipse under the October to March observation period, took also place during the night of 08.11.03 to 09.11.03. Further more we calculated the hourly average values of the oscillation amplitude.

Conclusion: No coherence between moon - behaviour and oscillation amplitude could be determined.

2.2.4. dependence on the ambient temperature

As previously mentioned, did we notice a coherence between oscillation behaviour and room temperature. We compared the hourly average values of the oscillation amplitude with the room temperature. This coherence existed during all test periods and could be reproduced any time. The diagrams (fig. 42 to 43 A) represent a coherence.
Stündliche Mittelwerte vom 01.11.03 bis 04.11.03

ohne ablenkende Massen

Zugehöriger Temperaturverlauf

Fig. 42
Stündliche Mittelwerte vom 04.11.03 bis 07.11.03

ohne ablenkende Massen

Zugehöriger Temperaturverlauf

Fig. 43
The temperature gradients in fig. 42 and 43 clearly show the daily draw-down of the building heating system and weekend draw-down respectively on 01.Nov.03 and 02.Nov.03. We noticed clearly that rising temperatures cause a turn of the system towards a smaller numbering of the photo transistors, consequently counter clockwise. Falling temperatures cause a right turn.

We realized that a temperature change of 1.5 °C causes a deflection of the torsion balance of approx. 2 photo transistor units, approx. 5 mm. Decisive for further proceedings was the fact that merely a small temperature change of e.g. 0.3 °C (02.Nov.03) caused a clear deflection of 0.4 photo transistor units (as hourly average values with 3020 measured values, plus equal recesses, per hour). Furthermore a peak was recognized on 03.Nov.03. At this point the room temperature was switched off for 2 hours.

Next was the question what caused the deflection? What on our system reacted to a temperature change and provided the deflections?

A spontaneous "suspicion" was that the two high-grade steel wires of 0.3 mm in diameter, holding the system's suspension, could possibly react differently to heating causing the deflection. Therefore we attached an electrical heater to the lower end of the stainless steel wires, consisting of ceramic resistors, fed with direct current, converting in two stages electrical power (25 W and 40 W) into heat. This heating was mechanically decoupled from the torsion balance. A partial lining around the stainless steel wires ensured that warmed air could ascend along the stainless steel wires. However this showed no effect concerning the deflection, excluding the stainless steel wires as cause for the temperature behaviour.

Next we filled a conventional plastic bucket with approx. 6 litres hot water out of the tap and placed it against the torsion balance, on the W - side near to the sample chamber (in this case cuboid shaped). The distance between bucket and sample amounted to approx. 10 cm. In between was the air movement protection foil (see Fig. 44). The initial test temperature of the water was measured at 45.5 °C. Immediately after placing the bucket next to it, a "right deflection" of the torsion balance took place as if the water bucket would attract the sample. (see Fig. 45).
Immediately after placing the water next to the torsion balance it reacts. The system deflects, swings briefly back, the laser reaches the photo transistor 207 and remains for scarcely 30 minutes at this value. Thereafter the deflection reduces relatively fast, slowly reaching, after approx. 6 hours after placing the water bucket, its initial position. Later attempts showed the deflection of the temperature curve following cooling down water. The maximal deflection amounts to 10 photo transistor units. This corresponds to approx. 2.5 cm.

2.2.5.a. Influence of warm masses on the sample

After the effect caused by the bucket with hot water, we placed further hot (or warm)
masses (lead, concrete, or simple light bulbs) near the sample chamber and observed appropriate (larger or smaller) deflections. If the masses were set facing the opposite side of the sample, the direction of the deflection changed. These tests had only been "quick tests".
Detailed examining followed: At first we installed 4 temperature sensors (PT 100) under, over, on the W-side and on the E-side of the sample, within the air movement protection foil (see Fig. 46).

![Diagram of temperature sensors](fig46)

Anordnung der Temperatursensoren (von S-Seite)

Temperatursensor 4
Luftzugschutzfolie

Temperatursensor 3
W-Seite

Temperatursensor 1

Temperatursensor 2
O-Seite

Probekörper

Fig. 46

Thereafter, we examined the connection between deflection of the system and the measured temperatures at sensor 1 to 4. These 4 temperature sensors were used in 102 different measurement series.
We noticed among other things that the mass of the hot (warm) body had no influence on the size of deflection. **Decisive** however was the temperature of the hot (warm) mass, its distance from the sample and room temperature.

The following illustration serves as an example:

On the East side an electrical 150 W - emitter (for lighting purposes) is placed at 50 cm distance from the sample, outside of the air draft protective foil. Samples and emitters are not exactly at same height: the emitter is attached about 5 cm higher than the sample. (see Fig. 47). The behaviour of the system and the temperature sensors before, during and after switching the 150 w-emitter on and off, is demonstrated in fig. 48a to fig. 48e.
Fig. 47

![Graph showing temperature changes over time.](image)

14:05 Uhr  | Montag, 16.01.04 | 16:34 Uhr
---|---|---

150 W-Strahler

Ein

14:19 Uhr

150 W-Strahler

Aus

14:46 Uhr

Anzahl der Messungen

Fig. 48 A
Result:
The temperature gradients, indicated at the 4 sensors, behave synchronously with (left-oriented) deflection. The indicated 18 photo transistors correspond to 4.5 cm.
Sensor 1, close to the heat source (in the "main stream") showed the largest temperature change (approx. 4.3°C).
The second largest temperature change of (approx. 3.0°C) showed in sensor 4, placed above the sample.
Sensor 2, positioned underneath the sample, partly shielded by the sample, showed a rise of approx. 2.5°C. Sensor 3 completely shielded by the sample brought it only to a rise of approx. 1.3°C. Since the system behaved with the same pattern as experienced on previous attempts, we assumed a thermal motion (air movement) within the air movement protection foil, resulting from the measured temperature differences within the air movement protection foil. Details follow later.

We used warm masses such as:
- tap water (warmed up in bucket)
- concrete blocks (warmed)
- candle (tea light)
- various bulbs
- 150 W - emitters for lighting purposes
- 500 W - emitters for lighting purposes
- IR – Emitter

2.2.5.b. Influence of cold masses on the sample

The influence of cold masses on the sample was also examined. Example fig. 49 shows that on the W-side of the sample a round plastic bowl with approx. 1.5 litres ice water is positioned. Underneath the sample 1 litre ice water was attached. Both ice containers were outside of the air movement protection foil. The temperature of the water ice amounted at the beginning of the measurement to approx. -15 °C. The behaviour of the system and the temperature sensors during and after placing and/or removing the ice is demonstrated in fig. 50a to 50e.
Fig. 50 A

Fig. 50 b
Fig. 50c

Fig. 50d
Result:
In this case the 4 temperature sensors also behave synchronously with the
deflection of the system. Also here a left-oriented deflection is recognized. The ice
behaves quasi "repulsively" on the system.
Recognize the fact that during the exposure phase of the ice the sensors 2 and 3
(caused through the closeness of the ice) are cooler, sensors 1 and 4 warmer.
The sensors behaved similarly during measurement 2.2.5.a, the reason being
however, that the heat source was exactly opposite to the sample. On both
measurements therefore, the assumed warm air movements must have taken place
in the same direction.

2.2.5.c. Influence of heat flow ( human body "come-in effect")

R. Zinsser describes a "come-in effect" in his test series that took place whenever a
person was close to the experimental setup, that had been there before, i.e. the
system deflects if this person stands close to the system.
In general we could reproduce these "come-in effects" at any time, however there is
a very conventional physical explanation.
To execute the experiment:
The author (Mr. Zentgraf ) positioned himself at the W-side of the system near to the
sample, his torso approx. 50 cm in distance away. The system is inside the air movement protection foil. (Zinsser stands outside).
Results see fig. 51a to 51e.
Fig. 51 C
Result:
All 4 temperature sensors reacted to body warmth.
Sensor 3 shows clearly the temperature rise (and later the decline) because the test person stands right next to it.
It is clearly noticeable that the system reacts to small temperature changes of ($\leq 0.5\ ^\circ\text{C}$).
The deflection of the system to the right takes place as expected ("attracting"); the temperature distribution reacting as expected on the sensors.
Naturally we must point out that any person can cause such a deflection. However the room temperature is an important parameter, depending on the amplitude of the system deflection.

2.2.6. Proof of warmth and/or air movements within air movement protection foil.

In order to prove warmth and/or air movements, we manufactured among other things a "propeller" made of very light silk paper (see Fig. 52, right).
This "propeller" was fastened inside of the air movement protection foil with changing positions close to the sample, on a thread fastened at the center of the "propeller", (example: See Fig. 53, right above the sample).
Result:
By adding, for instance, warm objects to the experimental setup, the "propeller", turned at a certain angle (typical: approx. 30° to approx. 90°) and remained in this position.
If the warm objects were removed, the "propeller" decreased gradually back into its starting position.
If warm objects were replaced by a cold object, e.g. ice water, then the "propeller" deflected in the opposite direction.
This is clear evidence that a warm air flow existed within the air movement protection foil. Detailed videos were taken during these tests, clearly showing the behaviour of the "propeller".

2.2.7. Narrowing of the airspace around the sample chamber

During the past tests the air space within the air movement protection foil, around the sample was large enough to add the "propeller" see point 2.2.6. We reduced this air space to just large enough to either hold the cylindrical or the cuboid formed chamber and leaving enough space for the torsion balance to deflect. For this restricted range we used in addition aluminum foil, also used by R. Zinsser to reflect radiant heat. (see Fig. 54 to 56.) The remaining structure of the torsion remained coated with transparent foil to protect from air drafts.

Fig. 54
The narrow "casing" of the chambers brought no discernable change to the system performance, neither to the cylindrical or the cuboid samples.

See following fig.57 as example, representing the system performance, as the author stands next to the w-side of the sample (see point 2.2.5.c). Here again the torso has a distance of approx. 50 cm away from the sample.
Notice that due to modifications on the laser evaluation bars a new alignment was necessary.

2.2.8. Simulation of the thermal radiation of R. Zinsser's transmitter by means of bulbs

Viewing photos, accessible to us, of R. Zinsser's original structures (e.g. "Mechanical Energy from Gravitational Anisotropy, Th. Valone, 1996), we noticed that all experiments had always a heat source near to the system, which was switched on when high frequency was supplied, i.e. tube transmitter (see Fig. 58 and 59).
Fig. 58 and fig. 59: Zinsser’s original apparatus shows on the left half side of the screen the tube transmitters, the right half screen shows the torsion structure, with
and without lining.
The transmitter stands at the edge of a table. This edge is again directly above the sample, fastened on the left end of the torsion balance.
We assumed that most likely the heat emission of the electron tubes (each tube is heated, even if it is operated in the no-load operation) could affect the torsion bar.

Since we were not in the possession of a tube transmitter (at a later state however a transistor was available) we used the data sheet of the tubes and determined ourselves from it the possible heat emission and simulated this by the heat emission of light bulbs (see Fig. 60).

The original transmitter structure contained 2 tubes EL 152 (fig. 58 and: the larger tubes fig. 59) as well as two smaller tubes, researching this tube type was not possible.
From the data sheet of the EL 152 we determined approx. 10 W heating performance per tube, 20 W for both. For the two smaller tubes no technical data was available. An amateur wireless operator recommended calculating, per each small tube, approx. 5 W of heating performance.
This resulted in a total amount of approx. 30 W power. For additional circuit elements that also radiate warmth (resistor, transmitter; etc..) we used approx.. 10 W in addition. The total calculated heating performance amounted to approx 40 W of the original Zinsser Transmitter.
For the time being we started the test series with a commercial 25 W bulb. In later tests we increased the performance to 40 W, 60 W and 65 W (using a 25 and 40 W bulb). See fig. 61 to 64 e.
In order to have similar (local) conditions as R. Zinsser had, we simulated the table by using polystyrene plates (and the table edge) on which R. Zinsser's transmitter stood. In fig. 60 left side below, the torsion construction is partially seen and in the middle above notice a simulation with bulbs. Also clear to see are the polystyrene plates, which represent the table and the table edge.
In Fig. 61 the reaction of the system, affected by a 25 W - bulb can be viewed.

Fig. 61

Fig. 62 describes the reaction of the system caused by a 40 W - lamp:

Fig. 62
Fig. 63 shows the reaction of the system caused by a 60 W - lamp:

Fig. 63

Results from Fig. 61 to 63:
The effect was stronger, the larger the lamp performance was. All measurement series were at any time reproducible, also with experiments using a 25 W - lamp. For clarification of the temperature distribution within the aluminum foil, used as an air draft protection foil around the sample, see Fig. 64 a to 64 e, with 65 W - lamp performance.

Fig. 64 A
Fig. 64 b

Fig. 64 c
Result from Fig. 64 a to 64 e:
Sensor 4 was right next to the light/heating source therefore showed the most definite temperature gradient of all 4 sensors.
It is clear that also due to the bulbs, which simulate the heat disposal of the Zinsser transmitter within the narrow area which is surrounded by the aluminum foil, a warming and/or an air flow takes place.

R. Zinsser and W. Peschka described in their documentations that if "injected with very small HF - energy (mW range), the system reacted. Larger energy did not intensify the effect ".

Note: Soon after switching the power on, regardless of which energy strength was transmitted, a deflection of the system took place. These exact circumstances are within our test series, with one restriction that we transmit with zero "energy".

With these demonstrations we can state conclusively that Zinsser's effect are explainable effects (and reproducible at any time) by conventional physics (warmth and/or air flow). There is no necessity for "kinetobaric effects" or "mechanical energy from anisotropic gravity field".

Nevertheless did we continue our investigations up to HF - irradiation (see point 2,3).

2.2.8 Replacing the water in the sample with sand

We were also interested if possibly the water in the chamber considerably affected the system performance, or whether the system behaved with different types of samples of the same mass and the same volume. Therefore we replaced the water in the cylindrical sample chamber with sand, having the same total weight (538 gr) (see fig. 65 and 66).

Fig. 65 (copy of fig. 36)
Subsequently the sample was irradiated with a 150W light beam from the w-side, within a distance of approx. 25 cm from the air protective foil.

Fig. 67 shows the 150 W beamed at the front left side. In the center of the picture there is part of the aluminum air draft protective foil displayed which encloses the sample. In the background of the picture, is the remaining part of the transparent air draft protective foil encasing the remaining part of the torsion balance.
Fig. 68 displays the behaviour of the system with water filled sample.
Fig. 69 displays the behaviour of the system with the sand-filled sample.

Results from Fig. 68 and 69:
No substantial differences between water and sand are recognized by the system. Deflections occur in the expected direction (clockwise, thus "attracting"). The slight difference in amplitude is due to the small differences in room temperature.

2.2.10. Heating water in the sample by electric current

Next we explored the behaviour of the system with heated water in the chamber. In addition we attached the antenna to the sample with very thin coiled lines (30 AWG corresponding according to 0.25 mm in diameter). The coiled wires were wound loosely in spirals around the two steel wires (in order to cause no additional torque) and were guided across the laboratory ceiling connected to a 50 Hz transformer.

A fifth temperature sensor was attached on to the (cylindrical) sample in water. A similar sensor was attached over a second coiled wiring to the temperature recording device.
At this point we had many reference values. Now we tested whether the coiled wiring actually caused no measurable changes to the system performance by adding warm masses e.g (ref. point 2.2.5.a). In relation to the measurements ref. point 2.2.5. no changes were detected in the system behaviour.

Now we increased the voltage on the transformer. Realizing due to prior tests, that voltages under 100 V did not cause a considerable rise in temperature, a maximal possible voltage of 291 V was applied to the transformer. Thereby, the circulating current through the water of the sample was 286mA. This corresponds to an electrical output of 83.2 W. After 8 minutes the current was switched off again. Immediately before switch off the voltage was at 289 V and the current increased up
to 434 mA. This corresponds to an electrical output of 125.4 W.

Fig. 70a represents the system performance during the test.

Fig. 70 b shows the temperature gradient in the water of the sample.

Fig. 70 c to 70 f contain the temperature gradients of the air temperature sensors 1 to 4.

Fig. 70 a
Fig. 70 b

Fig. 70 c
Fig. 70 d
<table>
<thead>
<tr>
<th>Uhrzeit</th>
<th>Temperatur in °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:12</td>
<td>15,00</td>
</tr>
<tr>
<td>15:20</td>
<td>15,20</td>
</tr>
<tr>
<td>16:02</td>
<td>15,10</td>
</tr>
</tbody>
</table>

Fig. 70 e
Results from fig. 70 a to 70 f:
All previous series of measurements had an affect on the system by a warming and/or cooling source, therefore causing deflections in a certain direction. During the final tests (fig. 70 A to 70 f) the actual sample was heated up. No permanent deflection occurred in a certain direction, but there was a swing of the torsion bar caused by warmth and/or air flow.

2.3. Third version, structure according to Zinsser with HF - mode

2.3.1. Use of an arbitrary function generator (semiconductor technology)

As already mentioned at point 2.2.8., are we at any time in the position to explain and reproduce the described effects by R. Zinsser and W. Peschka merely by warmth and/or air flow.

Regardless of all previous tests, did we continue with our tests by adding high frequency (HF) into the antenna of the sample, according to R. Zinsser and W. Peschka. Using an arbitrary HF generator based on semiconductor technology and placing it approx. 2 m distant from the experimental set up up, contrary to the
original structure, no "disturbing" thermal radiation would affect the system.

For these test series an arbitrary function generator type 33250 A was utilized. Vendor, Fa. Agilent, (see fig. 71).

Fig. 71

2.3.1.a. Reproduction of R. Zinsser/W. Peschka pre-set high frequency voltage and peak-rates.

R. Zinsser defines in his documentations a certain voltage, e.g. the relationship of different harmonic to primary harmonics, as well as a certain frequencies and voltage amplitude. (see fig. 72 and http://www.rexresearch.com/zinsser/zinsser.htm).
In this connection R. Zinsser indicates, the importance of adhering to certain frequency ranges and/or frequencies. He references: 30 MHz to 40 MHz, 120 MHz to 130 MHz, 200 MHz to 350 MHz with HF-voltage of approx. 10 V and power in the range of mW.

The arbitrary generator was used to reconstruct numerous references by R. Zinsser, as well as the voltage mode in fig. 72 (see our replication in fig. 72a). We ensured that the antenna in the sample was co-ordinated with the appropriate wavelength of the supplied frequency (1/4, 1/8, 1/16).


2.3.2. Execution of the HF- of attempts/results

Typical measurements from many are illustrated in fig. 74 to 78. At this test an arbitrary signal (40 MHz, 10 V, the ratio of primary harmonic to first harmonic = 6:1) is fed into the antenna of the cylindrical sample chamber. Prior to the test we checked with another antenna, directly at the sample (within the aluminum air flow protective foil), to see if the signal actually arrives at the sample, to eliminate a possible interruption of the supplying coiled line.
Fig. 73

14:16 Uhr Freitag 12.03.04 16:07 Uhr

arbitäres Signal

15:07 Uhr

Anzahl der Messungen

Fotografin-Nr.
Fig. 75

Fig. 76
Fig. 77
Fig. 78

Results from Fig. 74 to fig.78: No test caused a deflection of the torsion bar. Clearly visible is that switching the arbitrary signal on or off had no deflection effect on the system based on its initial position (see fig. 74 to Fig. 76). Notice fig. 74, the laser point is prior to switching the arbitrary signal on between photo transistor NR. 175 and 176, therefore subject to low warm or air flow within the air flow protective foil and oscillates between these two values. Switching the arbitrary signal on does not change the amplitude of the oscillating motion. This is even more clearly illustrated in fig. 75 and fig. 76. The arbitrary signal does not warm up (not measurably) the water in the sample. The temperature change of the water takes place with the appropriate delay; eg the changing room temperature (week end draw down), see fig. 77 and 78.

3. Summary

The "kinetobaric effect" or the "mechanical energy from an anisotropic gravitational field (MEGA)" described by R. Zinsser / W. Peschka could not be reproduced by us. We could prove quite clearly though, that the deflections described by R. Zinsser/W.Peschka, were caused definitely by warmth and/or air flows.

4. Fault diagnoses.

It was very important in every phase of our test series, to recognize and eliminate or to minimize possible error sources and disturbances, e.g. minimal air flow in room
The Pt100-sensors, used for temperature monitoring and their electronic evaluation, were calibrated and checked several times. After each change, the system had sufficient time to swing and/or "restore". The electronically recorded room temperature was spot checked again and again with very accurately mercury thermometers.

4.1. Used measuring instruments

- Function generator    Hameg TC 8030
- Synthesizer/signal generator Fluke 6062A
- Arbitrary generator    Agilent 33250 A
- Oscilloscope (4-channel) Tektronix TDS 3054
- Oscilloscope (2-channel) Voltcraft 630
- RMS circuit analyzer    Fluke 89 IV
- Circuit analyzers Voltcraft 2010
- Circuit analyzers Voltcraft ME-42
- Digital camera Epson photo PC 600
- Laboratory PC Dell V 400
- C-Controll II Conrad B/N 95 05 70
- Printers Conrad B/N 95 05 70
- C-Controll II Conrad B/N 95 05 70
- Printers Conrad B/N 95 05 70
- C-Controll II Conrad B/N 95 05 70
- Printers Conrad B/N 95 05 70

5. Source proof

- http://www.r-j.de/kinetobarik/kineto01.htm

"Mechanical Energy from Gravitational Anisotropy/The complete documentation of the discovery of Kinetobaric Force by Rudolf G. Zinsser " Edited by Thomas Valone, MA, PE. Integrity Research Institute

"Kinetobari effects - a new phenomenon?" Umschau 75 (1975) number 5

- United States patent NR. 4,085,384 April 18, 1978  Zinsser

- MEGA mechanical energy from gravitational anisotropy mechanical energy from a new regenerative source and beginning of a new theory Rudolf G. Zinsser space & time, 1982
6. Note of thanks

We would like to thank “Agilent Technologies, Germany” particularly Mr. Tomas Lange, for making the Arbitrary generator 33250 available to us free of charge.

Waldaschaff, 27 April 2004

Dipl. -Ing. (FH) Eberhard Zentgraf