blaze labs research

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Transmutation of Carbon

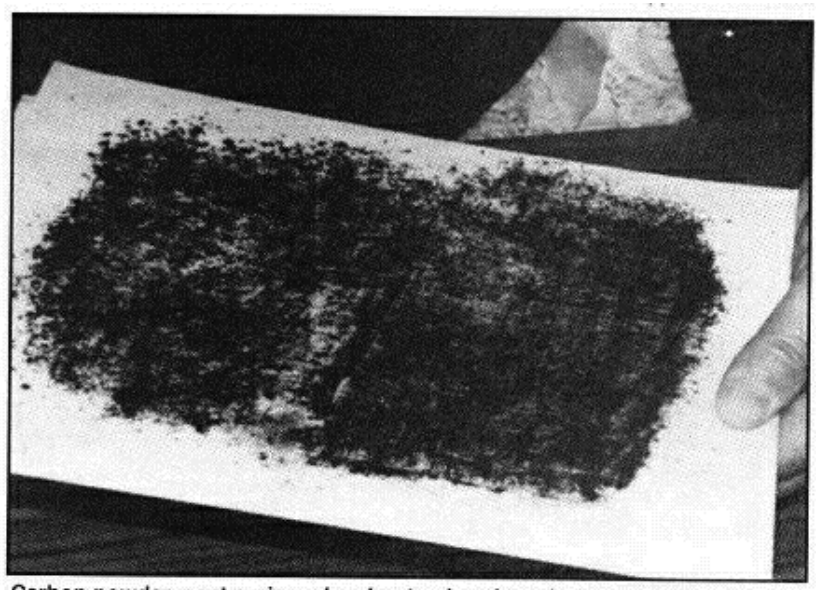
In 1994, R. Sundaresan and J.Bockris (Texas A&M) reported that they had observed "Anomalous Reactions During Arcing Between Carbon Rods In Water:

"Spectroscopically pure carbon rods were subjected to a carbon arc in highly purified water. The arc current varied from 20 to 25 A and was passed intermittently for several hours. The original carbon contained ~ 2 ppm Fe. The C rods remained cool to the touch at >2 cm from their tips. Absorption of iron from water or the surrounding atmosphere was established as not being the cause of the increase of iron. There is a weak correlation between the iron formed and the time of passage of current.

"When dissolved O_2 was replaced by N_2 in the solution, no iron was formed. Hence, the mechanism

$$2\,{}^{6}C_{12} + 2\,{}^{8}O_{18} = {}^{26}Fe_{56} + {}^{2}He_{4}$$

was suggested as the origin of the iron. The increase in temperature of the solution was consistent with expectation based on this reaction."



Carbon powder, post-arcing, showing tracks where ferromagnetic material (iron?) has been pulled out. *Photo: K. Sasaki*

The Fe which is produced by this transmutation is stainless. It does not rust easily. It has also much less reaction to heat than ordinary iron, due to its composition of 2 Si (silicon) atoms. This iron was name G.O.S. (George Ohsawa Steel), given the initials of George Ohsawa by the scientists who worked with this transmutation. All results of the transmutation of Fe have been carefully examined and analyzed by several methods including: magnetic inspection, spectroscopic

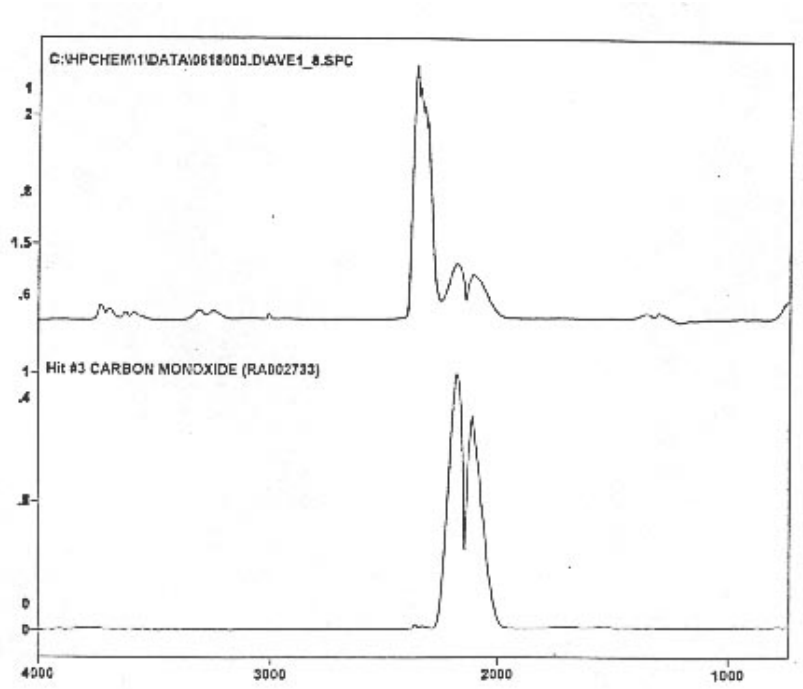
analysis, chemical analysis, and examination by reagent, confirmed by authoritative testing agencies.

Also in 1994, another group of researchers (M. Singh, et al.) at the Bhabha Atomic Research Centre (Bombay) reported their "Verification of the G. Ohsawa Experiment for Anomalous Production of Iron from Carbon Arc in Water:

"A direct current arc was run between ultrapure graphite electrodes dipped in ultrapure water for 1-20 hours. The graphite residue collected at the bottom of the water trough was analyzed for Fe content by a conventional spectrographic method... The Fe content was fairly high, depending on the duration of the arcing... The results showed large variations in Fe content (50 to 2000 ppm) in the C residue. In the second series of experiments... with the water trough fully covered, the amount of Fe in the carbon residue decreased significantly (20-100 ppm). Here also there were large variations in the iron concentration in the residue, although the experiments were performed under identical conditions. Whether Fe is really being synthesized through transmutation from C and O as suggested by George Ohsawa or is getting concentrated to different degrees through some other phenomenon is not currently clear. The Fe in the C residue was also analyzed by mass spectroscopy for the abundance of various isotopes... Besides Fe, the presence of other elements like Si, Ni, Al, and Cr was also determined in the C residue, and it was found that the variation of their concentrations followed the same pattern as that of Fe."

Anomalies of Generated Molecules

Santilli's main hypothesis for the resulting gases anomalies is that, at the time of their formation under an electric arc, gases H2, CO, CO2, O2, etc. do not have a conventional structure because the orbits of their valence electrons, and maybe also their necleus shells are mostly polarized in a plane due to the very intense magnetic field surrounding the electric arc (of the order of 10 Tesla or more). In turn, such a polarization implies the creation of strong magnetic moments, resulting in new magnetic bonds constituting magnecules.



The anomalous IR signature of Carbon Monoxide (top) compared to the conventional one (bottom), establishing a polarization of the orbits of valence and other electrons.

The experimental verification of the fuel gas requires the detection of a number of anomalies that can be summarized as follows. All these anomalies have been experimentally verified.

Anomaly 1: Appearance of unexpected heavy MS peaks.

Fuel gas molecules, referred as magnecules are generally heavier than the heaviest molecule in a given gas. Peaks in the GC-MS are therefore expected in macroscopic percentages with molecular weights bigger than the heaviest molecule. These heavy composites should not provide MS peaks according to quantum chemistry, thus constituting an anomaly. As an example, by ignoring heavy compounds in parts per million [ppm], Magnegases^{TM} should have no large peak in the GC-MS with more than the CO_2 molecular weight of 44 a.m.u. The existence of heavier large peaks would establish this first anomaly.

Anomaly 2: "Unknown" character of the unexpected heavy peaks.

To provide the initial premises for magnecules, the peaks of Anomaly 1 should result in "unknown" in the search by the GC-MS computer in its memory banks of conventional molecules, usually including about 150,000 molecules.

Anomaly 3: Lack of IR signature of the "unknown" peaks.

Another necessary condition to have magnecules is that the "unknown" peaks of Anomaly 1 should have no infrared signature at all. According to established evidence, all gases with a valence bond must have a well defined infrared signature [with a few exceptions of spherically symmetric molecules, such as hydrogen]. In the event the peaks of Anomaly 1 do have an infrared signature, they can be constituted by new yet conventional molecules not identified before. The only infrared signatures of any given gas magnecule should be those of the conventional molecules and atoms constituting the cluster itself. As an illustration, the only admissible infrared signatures of magnecule {O2}x{O2} are those of the conventional molecules O-O and C-O.

Anomaly 4: Mutation of conventional IR signatures.

The infrared signatures of the molecules constituting a magnecules are expected to be mutated, in the sense that the shape of their peaks is not the established one. This is another anomaly of magnecules expected from the polarization of the orbits of the valence and other electrons. In fact, this polarization implies space distributions of the orbitals different than the conventional ones, thus resulting in a deformation of the shape of the IR peaks. Moreover, the same polarizations are expected to create additional strong bonds within a conventional molecule, that are expected to appear as new IR peaks. Still in turn, such an internal mutations of conventional molecules have far reaching scientific and technological implications, as will be shown.

Anomaly 5: Mutation of magnecules.

While molecules preserve their structure at conventional temperatures and pressures, this is not the case for magnecules, that are expected to mutate in time, that is, to change the shape of the MS peaks due to change in their constituents. Since we are referring to gases whose constituents notoriously collide, magnecules can break-down into parts during collisions, which parts can then recombine with other magnecules to form new clusters. Alternatively, magnecules are expected to experience accretion [or emission] of polarized conventional atoms or molecules without necessarily breaking down into parts. It follows that the peaks of Anomaly 1 are not expected to remain the same over a sufficient period of time for the same gas under the same conditions.

Anomaly 6: Mutated physical characteristics.

Magnetically polarized gases are expected to have mutated physical characteristics because the very notion of polarization of the orbits implies a smaller average molecular volume. Mutations of other physical characteristics are then consequential.

Anomaly 7: Anomalous adhesion.

Magnetically polarized gases are expected to have anomalous adhesion to walls of disparate nature as compared to the same unpolarized gas. This is due to the well known property that magnetism can be propagated by induction, according to which a magnetically polarized molecule with a sufficiently intense magnetic moment can induce a corresponding polarization of valence [and_or other] electrons in the atoms or molecules constituting the walls surface. Once such a polarization is created by induction, magnecules can have rather strong magnetic bonds to said walls.

Anomaly 8: Increased penetration through substances.

Magnetically polarized gases are expected to have anomalous absorption or penetration through other substances. This is first due to the reduction of the average molecular volume with inherent increase of permeability, as compared to the same unpolarized gas. The second reason is the magnetic induction of the preceding anomaly.

Anomaly 9: Increased energy release.

Magnetically polarized gases are expected to have thermochemical reactions with macroscopic increases of energy releases, as compared to the same reactions among unpolarized gases, an expected anomaly that, alone, has large scientific and industrial significance.

EXPERIMENTER'S CORNER

A Simple Transmutation Experiment

by E. Mallove

Carbon Arc Experiments

The background for the suggested home laboratory element transmutation experiment with a carbon arc-in-air, are the two astonishing carbon arc-in-water experiments reported in *Fusion Technology*, Vol.26, November 1994 (pp.261, pp.266). Here are the abstracts of these two reports:

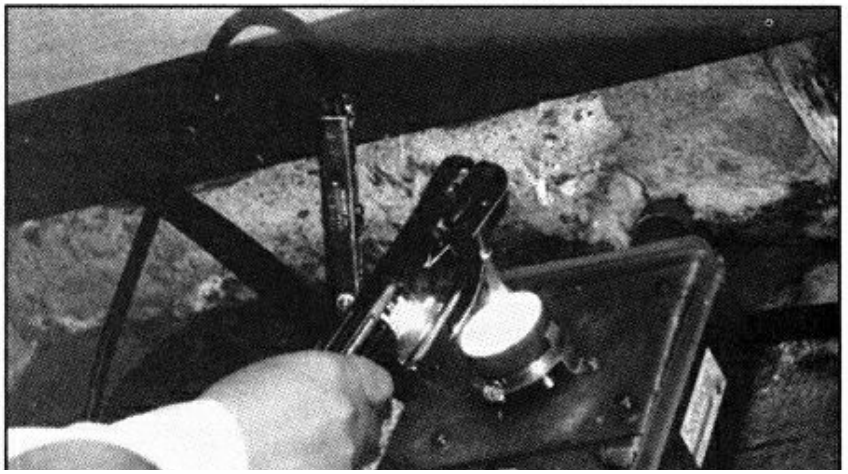
ANOMALOUS REACTIONS DURING ARCING BETWEEN CARBON RODS IN WATER

R. SUNDARESAN* and J. O'M. BOCKRIS
Texas A&M University, Department of Chemistry, College Station, Texas 77843

Spectroscopically pure carbon rods were

water trough was analyzed for iron content by a conventional spectrographic method. It was found, in the first few experiments, that the iron content in the graphite residue was fairly high, depending on the duration of the arcing. The experiment was repeated initially six times, and the results showed large variations in iron content [50 to 2000 parts per million (ppm)] in the carbon residue. In the second series of experiments, which were done with the water trough fully covered, the amount of iron in the carbon residue decreased significantly (20 to 100 ppm). Here also there were large

Now switching to an even simpler experiment, which we who attended ICCF6 last October heard about. These are carbon arc-in-air, allegedly producing iron—no water is used. Kenjin Sasaki, an agricultural consultant from Tokyo, handed out a protocol for doing these experiments, which I have transcribed below in "improved" English. He kindly lent me the color photographs of his tests, one of which appears on the cover of this issue.



subjected to a carbon arc in highly purified water. The arc current varied from 20 to 25 A and was passed intermittently for several hours. The original carbon contained ~2 parts per million (ppm) iron, and the detritus contained up to 286 ppm of iron. The carbon rods remained cool to the touch at >2 cm from their tips. Adsorption of iron from water or the surrounding atmosphere was established as not being the cause of the increase of iron. There is a weak correlation between the iron formed and the time of passage of current.

When dissolved O_2, was replaced by N_2 in the solution, no iron was formed. Hence, the mechanism

$$2_6C^{12} + 2_8O^{18} \rightarrow {}_{26}Fe^{56} + {}_2He^4$$

was suggested as the origin of the iron. The increase in temperature of the solution was consistent with expectation based on this reaction.

** On leave from Bhabha Atomic Research Center, Bombay, India*

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VERIFICATION OF THE GEORGE OSHAWA EXPERIMENT FOR ANOMALOUS PRODUCTION OF IRON FROM CARBON ARC IN WATER

M. SINGH, M. D. SAKSENA, V. S. DIXIT, and V. B. KARTHA
Bhabha Atomic Research Centre,
Spectroscopy Division
Trombay, Bombay-400085, India

A direct current arc was run between ultrapure graphite electrodes dipped in ultrapure water for 1 to 20 h. The graphite residue collected at the bottom of the variations in the iron concentration in the residue, although the experiments were performed under identical conditions. Whether iron is really being synthesized through transmutation from carbon and oxygen as suggested by George Oshawa or is getting concentrated to different degrees through some other phenomenon is not currently clear. The iron in the carbon residue was also analyzed mass spectrometrically for the abundance of its various isotopes, and the results were more or less the same as that of natural iron. Besides iron, the presence of other elements like silicon, nickel, aluminum, and chromium was also determined in the carbon residue, and it was found that the variation of their concentrations followed the same pattern as that of iron.

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"George Oshawa's Transmutation Experiments" were published in the March 1965 *East-West Institute Magazine.*

Any suitably ambitious reader could try to repeat these carbon water arc experiments, and perhaps go further toward assuring that contamination was *not* the source of the appearance of the iron. It is my view that the iron appearing to have a natural isotopic abundance ratio is <u>not</u> convincing evidence that it is from contamination. Why? If transmutations occur this easily, then one could well imagine that lots of the iron ocurring in nature may have been "cooked" in this simple way—leading to those ratios.

Another embellishment would be to try the experiments with heavy water as well.

Photo: K. Sasaki

Sasaki's Protocol:

1. Ready for Job

2. Tools: Graphite crucible (four nines purity, i.e. 99.9995% pure or better)
Carbon rod
Copper plate (for cooling)
Tray for water cooling
Electric welder (100 V, 10 A)
or Auto Battery and clip leads

3. Materials Carbon powder (high purity)
Cooling water

4. Order of Experiment

A. Put 2 to 3 grams of carbon powder in graphite crucible.

B. Strike electric discharge arc with the electrode, about 1 minute, done about 3 to 4 times only (i.e. no more than four times) — [implies pausing between 1-minute arcs]

5. Inspection

A. Spread remaining carbon powder on paper.

B. Slide magnet under that paper. You can see locus of the magnet — it shows the iron bits [!!!! - *my comment, EFM*]

C. Take these [magnetically separated] materials and examine with a magnifying glass. You will find [among them] a brilliant alloy [!!!!, yes, see the photo of this alloy attached —here in black and white.]

6. Reappearance (reproducibility)
This experiment is very easy for young student, literary person, bank man, woman, etc.

Kenjin Sasaki
942 Hikida, Akiruno-City
Tokyo 197, Japan
Phone: 81-425-59-5371
fax: 81-425-59-4927

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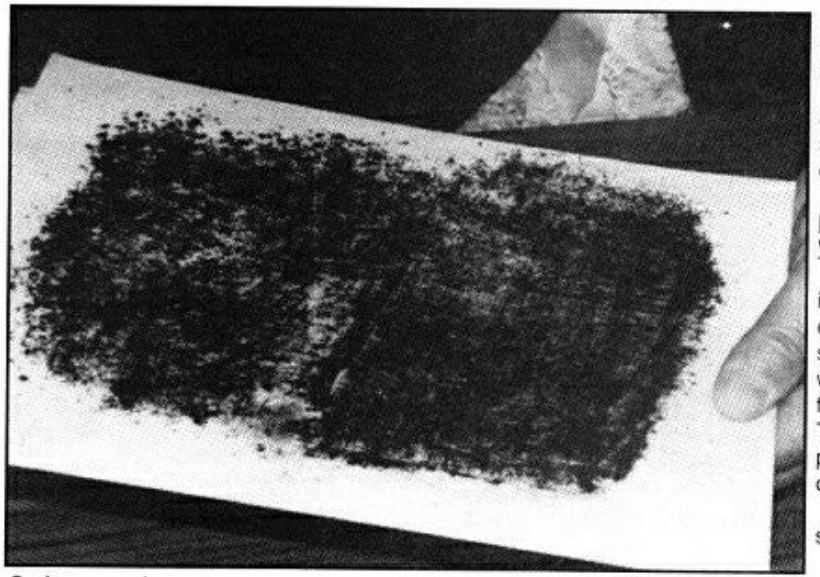
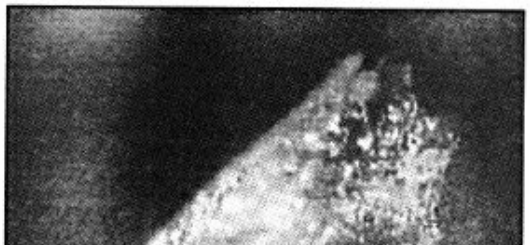
I have been told by Christine Akbar in Boston (an MIT Physics Dept. graduate—now with the Kushi Foundation) that she has tried the experiment and it worked for her. She said it is important to keep the current between 8 and 10 amps. She used an automobile battery charger.

I do not think it is really necessary to have a static tray of cooling water under a graphite plate or crucible. I imagine that doing the experiment on a thick graphite plate would work as well.



Carbon powder, post-arcing, showing tracks where ferromagnetic material (iron?) has been pulled out. *Photo: K. Sasaki*



ceeded in their experiments with several methods to produce Fe from C and O. Later French scientists tested similar methods and confirmed the success of the transmutation. After creating the method to achieve the most efficient possible transmutation, they filed patents accordingly. The following examples show only a few methods to accomplish the transmutation from C and O to Fe.

Method 1: Transmutation in Air (A):
Two graphite crucibles (approximately 2.5 x 5 to 6 inches) cover each other top and bottom. The upper crucible has a 10 mm hole, surrounded by a ceramic ring. The ceramic ring acts as an insulator. Into this hole, a carbon rod (0.25 inches in diameter) is inserted until it reaches to the carbon powder (2 to 3 grams) placed at the inside bottom of the lower crucible. The lower crucible has one or two small holes at the lower part of its side wall for air circulation. An iron base placed under the lower crucible acts as one electrode pole. The carbon rod acts as another electrode pole. As the carbon rod approaches the carbon powder, an electric arc arises. Continuing the operation for 20 to 30 minutes, the carbon powder changes to Fe.

In this experiment, the applied electricity is about 35 to 50 volts, and 8 to 18 amps, either A.C. or D.C.

Method 2: Transmutation in Water:
Using two carbon rods (0.25 inches in diameter), create an electric arc between them, by striking them on one another in water. This operation is performed for 1 to 5 seconds. Then, brown-black metallic powder falls down to the bottom of the water, which contains Fe.

The applied electricity is the same as in Method 1.

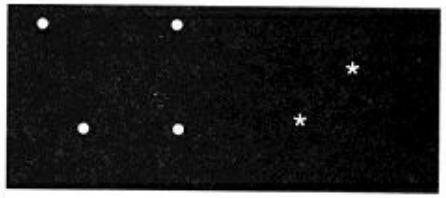
Method 3: Transmutation in Air (B.):
Carbon powder is placed on a copper plate, approximately 12 inches long, 6 inches wide, and 0.5 inches thick. This plate works as an electrical ground. A carbon rod (identical to the carbon rods used in Methods 1 and 2) used as another electrical pole, strikes repeatedly the carbon powder on the plate, producing an electric arc. The carbon powder changes into Fe.

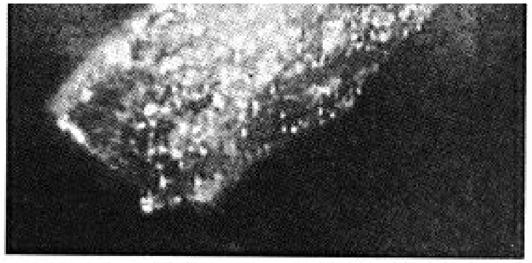
The applied electricity is the same as in the above

founder and president of Institut des Hautes Etudes Dialectiques et Scientifiques, Tokyo.
- Masashiro Torii-Doctor of chemistry, professor at Musashino Institute of Technology, Tokyo.
- Shizuko Washio-Doctor of biology, professor at Atomi University, Tokyo.
- Sanehide Komaki-Doctor of agriculture, professor at Mukogawa University, Kyoto.
- Chikao Narita-Doctor of medicine, president of Tokyo Shibaura Hospital, Tokyo.
- Yuzuru Sasaki-Research member of Institute des Hautes Etudes Dialectiques et Scientifiques, Tokyo.
- Noburu Yamamoto-Research member of Institut des Hautes Etudes Dialectiques et Scientifiques, Tokyo.

Not having tried this experiment ourselves—yet!—we do not know what to expect from it. We encourage our readers to try it and report their results to us. We will report on your findings in a subsequent issue. Those of you with access to quantitative scientific instrumentation for before/after element analysis are especially encouraged. Good luck!

(And, just for laughs, be sure when doing the experiment to wear a tall, pointed hat with stars on it!...EFM)





Microphotograph (approximately 100X) —"iron family metal from C+O with electrodischarge"
Photo: K. Sasaki

Another description of the carbon arcs experiments is from:

The Philosopher's Stone: Michio Kushi's Guide to Alchemy, Transmutation, and the New Science, One Peaceful World Press, 1994. **[Available from One Peaceful World Press, PO Box 10, 308 Leland Rd., Becket, MA 01223]:**

"George Ohsawa and his associates in Japan suc-

methods.

During the process of transmutation, Ni (nickel) is tempcrarily produced. But it disappears very soon, for it is an isotope with a radioactive nature. The life of an Ni isotope is considered approximately 1/lOOOth of a second.

In these experiments, the degree of transmutation from C and O to Fe is approximately 5 percent to 20 percent immediately, with a larger percentage of transmutation occurring gradually in the air, which has the effect of cooling the metallic powder to below room temperature. The Fe which is produced by this transmutation is stainless. It does not rust easily. It has also much less reaction to heat than ordinary iron, due to its composition of 2 Si (silicon) as the formula indicates. This iron was name G.O.S. (George Ohsawa Steel), given the initials of George Ohsawa by the scientists who worked with this transmutation.

All results of the transmutation of Fe have been carefully examined and analyzed by several methods including: magnetic inspection, spectroscopic analysis, chemical analysis, and examination by reagent, confirmed by authoritative testing agencies."

The various researchers who worked on the above (and the biological trasnsmutations also reported:)

• George Ohsawa-Philosopher, writer, honorary professor at Nippon University, honorary citizen of Paris,

home