

From the Orgone Institute Research Laboratories, Inc.

MELANOR, ORITE, BROWNITE AND ORENE

Discovered by WILHELM REICH, M.D.

PRELIMINARY CHEMICAL ANALYSIS

By ROBERT A. McCULLOUGH*

Introduction

A few clarifying words concerning the terms "Oranur Chemistry" and "Pre-atomic Chemistry" will help to place the following report in its proper context.

The new realm of basic research, Cosmic Orgone Energy, was opened up in 1936 by electro-bio-physical experiments, conducted at the University of Oslo, to determine the changes in charges of the skin surfaces signifying pleasure, anxiety and rage. The concept of electricity and electrons failed to explain the phenomena. In 1939, after three years experimentation with soil, coal and other bions, the Orgone Energy radiation from sand bions (SAPA) was discovered (*Organismic OR Energy*). Again, electrophysical laws and concepts failed to cope with the tremendous energies emerging from the bions and their properties. When it became apparent that the atmosphere contained the same kind of energy (*Atmospheric OR Energy*), it was obvious that the specific Life Energy had been discovered. It appeared logical that the energy governing life in the tissues *within* the organism should be identical with the energy contained in the atmosphere *without* the organism. This fitted well within the known fact that the basic chemical constituents of organism and atmosphere were identical: H, O, N, C.

Furthermore, mostly astrophysical considerations dealing with the old ether problem forced the concept of the existence of a MASS-FREE energy in the universe, the later "*Cosmic Primordial Orgone Energy*",

* Research Associate, Orgone Institute Research Laboratories, Inc. Formerly Research Associate, University of New Hampshire.

as the source of all creation. With this concept the theory of atomic and electronic "particles" being the primary constituents of the universe lost its validity. Mechanics, chemistry, electronics (including atomic energy) and other types of known energy manifestations became secondary functions—all somehow emerging from the primordial cosmic forces. This development in Orgonomy was inescapable, necessary; it led to the consistent development of both theory and experimental practice.

One of these consequences was the emergence of the facts of classical chemistry from unknown PRE-ATOMIC functions in the mass-free OR energy ocean. There would, furthermore, be functions of transition from mass-free pre-atomic to mass functions. Oxygen or nitrogen in organism or atmosphere would, according to this necessary hypothesis, emerge from energy functions which preceded and contained already some of the later characteristics of O and N.

During 1953 and 1954 these functions were actually encountered in the course of the experimentation with Melanor, DOR and other such manifestations of the Oranur Experiment. They were termed "*Function O*" or "*Function N*" ($\{O$; $\{N$), and were conceived as the transitional manifestations of

$$E \rightarrow \{O, N, H, C, \text{ etc.}$$

The "CREATION" of the chemical constituents of the atmosphere as well as of the organisms would not appear to be a single act at the beginning of existence, but a continuous process of creation all through the times of existence—balancing the process of decay and disintegration. This creative process corresponds to the orgonomic potential which by building up potential balanced the merely mechanical discharge of energy, thus nullifying the law of entropy.

The superimposition of two or more OR energy waves resulting in the creation of a material particle had already been assumed in "COSMIC SUPERIMPOSITION", 1951, to be the main tool of creation, of the transformation of primordial energy into matter.

$$E \rightarrow M$$

These highly abstract but necessary concepts were pressed forward into experimental and observational practice by the continued DOR emergency which harassed our lives at Orgonon for several years. The Observatory and the lower laboratory continued to be toxic to living organisms. The chemical investigation of Melanor, the black substance which had settled over the rocks and on living beings; of Orite, the white

powder into which the rocks disintegrated; and of Brownite, the brownish powder which could be seen to emerge from a mixing of Melanor and Orite became urgent.

The following preliminary report on the chemical analysis of Melanor, Orite and Brownite is the result of a research grant of 8000 dollars established by the WRF—OIRL. Mr. Robert A. McCullough, formerly with the New Hampshire Fish and Game Department and the University of New Hampshire, had been assisting me in various tasks of OR research since 1952. He sent in a coarse preliminary analysis of Orite, a white substance he had found on brick walls at the University of New Hampshire. It followed from this chemical analysis, that in 1953 first steps towards a more complex Oranur (*i.e. pre-atomic*) Chemistry would not be premature. On the contrary, those first results were most promising, and Mr. McCullough had demonstrated an instinctive understanding, as it were, for the basic nature of the problem of Oranur Chemistry by sending that first rough analysis. Therefore, in June, 1953, arrangements were made for Mr. McCullough to come to Orgonon on a grant basis to conduct the necessary chemical analysis of Melanor, Orite and Brownite.

I would like to reserve my priority right to publish further facts about Pre-atomic Chemistry, both theoretical and experimental, when my studies of the subject, since approximately 1936, will reach the necessary degree of understanding.

February, 1955

Wilhelm Reich, M.D.

PRELIMINARY CHEMICAL ANALYSIS

Collection of Material

In *The Oranur Experiment* and *The Blackening Rocks* (OEB III, V, 1951, 1953) Wilhelm Reich described his discovery of DOR and *Melanor*. In his report, he told how a black, nauseating corrosive "substance" attacked crystalline rock, resulting in the rocks disintegrating bionously, turning black and causing a severe excitation in the surrounding atmosphere.

In June, 1953, this writer was given a research grant to investigate under WR's guidance, the chemical aspects of Melanor and related materials. The following is a summary of the initial findings.

Many of the rocks composing the Orgone Energy Observatory walls were black when the writer first came to Orgonon in June, 1953. Others were various shades of brown and reddish-brown; while still others

were white. Many of the rock surfaces were deeply pock-marked—even to the extent of large holes in the rock surfaces.

The texture and hardness of the rocks varied considerably. The *black*, with two exceptions, was very hard, thin and confined usually to the surface. Where it was also in the interior, it was in hard black crystals. The two exceptions mentioned were found deep in crevices away from light and air. They were both soft powdery black—like soot.

The *brown* coloration was invariably softer—even to being as soft as talc. The brown was found either on the surface, *under black*, and/or *over white*. The brown rocks had areas in them where the soft brown material could be scraped out to a depth of 1½ and 2 inches.

The *white* material was usually under the brown and graded imperceptibly into it. However, several rocks were white in their entirety. The texture of the white varied from a talc-like softness to a quartz-hard crystallinity.

All types of rocks in the Observatory walls were affected: granites, quartz, slates, schists, gneisses, quartzites, and sandstones. However, not all of the rocks were affected. Some still remained looking quite healthy.

Other bionous disintegration processes were also taking place. However, this report will be confined to these three basic processes: *black*, *brown* and *white*. These have been elucidated by Wilhelm Reich and named by him—*Melanor*, (M_e) *Brownite* (Br) and *Orite* (Or), respectively.

Collection of these different substances were made by scraping the various rocks into labeled vials and storing each kind separately from the other.

Upon advice from WR, rock scraping was limited to about one hour each day and omitted entirely on rainy days or on days of bad DOR. Such limitation was necessary because of the radiation emanating from the Melanor affected rocks.* Unscraped Melanor rocks felt hot to the palm held 2-3 cm. away from it and gave a prickling sensation to the outstretched tongue. Scraped or hammered Melanor rocks, on the other hand, had these effects increased many times. An intense pressure would soon build up in the head, especially around the base

* [Editorial Note:] Melanor does not radiate. It does not affect the GM counter. However, OR-(Bio-) Energy reacts to Melanor with severe excitation that, in the atmosphere, was demonstrable here at Crgonon to the extent of 200-800 and on occasion more counts per minute.

of the skull, after only a few minutes of scraping. The face would become flushed and burning, and, following WR's advice, alleviation was found only with fresh air and frequent wetting down of face and hands. It was as if the rocks or the Melanor reacted to the irritation (scraping), with the organismic OR then reacting to the increased excitation.

The Brownite affected rocks usually did not affect one in this manner, although the darker ones did to some extent. The Orite affected rocks did not give a headache or flushed face; however, WR advised that a form of paralysis would result from overexposure to Orite.

Functional Qualities of Melanor, Brownite and Orite

Color: Melanor is black. Where it is found as a gray, the gray is due to a mixing of Melanor with the white Orite; where brownish, due to a mixing with Brownite (Reich). Orite is white and also grades toward gray or tan. Brownite ranges in color from a dark brown to a light tan.

Hydrogen Ion Concentration: Melanor gives an acid reaction to pH indicators with the usual range lying between pH 3 and pH 5. Orite is alkaline with the usual range lying between pH 8 and pH 11. The pH of Brownite is either neutral (7) or within one point of it. Color and pH are quite closely related.

The ash of Melanor is acidic (pH 3.6—3.8) and that of Orite is alkaline (pH 10). The ash of neutral Brownite, however, is just as acidic as that of Melanor.

Solubility: Melanor is completely soluble in strong mineral acids, partly soluble in water and completely insoluble in bases. The insoluble residue resulting from dissolving Melanor in water is black, while the residue from the evaporated solution is white—in part crystalline and in part an amorphous powder. The non-crystalline powder turns yellow in time, as does the aqueous solution. When an aqueous solution of Melanor is made basic, the Melanor immediately precipitates out as a blue-green flakey precipitate. Within the course of several hours this blue-green precipitate turns bright orange-red. It dissolves again upon reacidification.

Orite has a very variable solubility depending on the source from whence it was obtained. The more soluble samples are partially soluble in acids and completely soluble in water and bases. The less soluble samples are only slightly soluble in any solvent. The soluble

aqueous solutions are colorless and the basic ones are light yellow in color.

Brownite is only partially soluble in acidic, aqueous and basic solvents. In all cases it gives a yellow solution. The acid solution appears to be identical with an acid solution of Melanor—resulting in the same color-changing precipitate with the addition of a base.

Autoclaved solutions of Orite and Brownite will in the course of several months develop growths of green Life-forms. It has been impossible to do this with any Melanor solution (see Reich, Experiment XX).

Oxidation—Reduction: Melanor is a very strong *reducing* agent— *i.e.* it has a strong “hunger” for oxygen (Reich). In view of the apparent antithesis of Melanor and Orite, it was expected that Orite would prove to be an oxidizing agent. Such was not the case. It has shown no oxidizing action. However, oxidizing anions have been found in Orite. Brownite has shown neither reducing nor oxidizing action.

Fluorescence: Melanor is non-fluorescent either in its natural state or in aqueous solutions. In addition, when filter paper is soaked with a Melanor solution and dried, the natural blue-white fluorescence of the paper is inhibited. Orite fluoresces bluish-white as a dry powder and yellow in aqueous solutions. Brownite fluoresces yellow in aqueous solutions, but shows no fluorescence as a dry powder.

Ash: Melanor lost 40% of its weight in heating it to 1200° C. Two escaping gases were identified as hydrogen sulphide and carbon dioxide. The ash was bright red.

Orite lost 28% of its dry weight upon heating and only steam was detected escaping upon high heat. The ash was blue-white in color.

Brownite lost only 12% of its weight upon heating and only carbon dioxide was detected escaping upon high heat. The color of the ash was a dull gray brown.

*Major Chemical Components:** A spectrographic analysis showed Melanor to contain, in part: aluminum—3%, copper—2%, iron—over 10%, potassium—0.5%, manganese—2%, and silicon—4% (percentages are approximate). Calcium, lead and sodium were absent. Sulphur was found by chemical means.

A spectrographic analysis was made with Orite, but the approximate

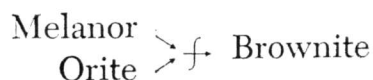
* [Editorial Note:] The term “compound” will require correction. Derived from chemical (atomic) theory, it does not fit the function.

percentages are not available. It was found to have considerable aluminum and sodium, with lesser amounts of copper, manganese, potassium and silicon. Cobalt, iron and lead were absent. Phosphorus and chlorine were found by chemical means.

A spectrographic analysis of Brownite showed the following: Aluminum—3%, copper—0.5%, iron—over 10%, potassium—over 10%, manganese—4%, sodium—4%, and silicon—4%. Lead and calcium were absent. Anion analysis showed the presence of sulphate, phosphate, nitrate, carbonate and chloride ions.

Summation

Wilhelm Reich by observation and microscopic examination postulated that Melanor and Orite made a functional antithetical pair with Brownite resulting from their contact:



The chemical investigations have borne out this contention fully: Melanor is acidic; Orite basic; and Brownite neutral. Melanor is black; Orite white; and Brownite brown. Melanor is soluble in acids; Orite in water and bases; and Brownite partially in all. Melanor is non-fluorescent; Orite is fluorescent; and Brownite partially fluorescent. Melanor is a reducing and dehydrating agent; Orite and Brownite are not. Melanor has predominately acidic cations and anions; Orite has basic cations and anions; and Brownite has a mixture of both.

ORENE (Oe)

Introduction:

ORENE (Oe) is the designation Wilhelm Reich gave to the pre-atomic "substance," concretely discovered by him in 1953 in the continuing course of the Oranur Experiment, which appears to be a transitional stage in the development of mass from energy:



It shows many functional qualities of both living and non-living material.

The following laboratory techniques describe certain means of collecting and/or extracting ORENE. They are not complete. There are several reasons for publishing this material at this time. One is to retain Wilhelm Reich's priority in this field of Oranur Chemistry. Another reason is to give a practical means of DOR removal from the inside of buildings. Reich found that the collection of ORENE, especially the

basic white form, in a building or room, effectively removed or reduced the DOR concentration therein. Two necessary precautions have to be mentioned in regard to these procedures. The white material should never be allowed to dry out, since, in its dry form, the material appears to be noxious. Reich further observed that both flushing the dry form into a sink with copious water, or drowning it in the ORENE collection vessels, appear to safely remove the noxious effects.

The second precaution is to keep all ORENE collection vessels out of reach of children, and where there is no chance of accidental spillage.

I Production of Standard Basic White ORENE (Oe):

Materials used in collection of ORENE:

Sodium hydroxide (NaOH)

Wide mouthed, clear, transparent glass vessels.

Basic procedure for collecting bag-form* ORENE:

The procedure, in summary, is to expose open vessels of concentrated NaOH solution to a DOR atmosphere. The ORENE will form around the edge of the solution and grow upward and outward where it is collected and stored. The ideal collecting vessels are bowl-shaped—as the collecting of the accumulated ORENE is facilitated by the sloping sides. Metal (glazed) and ceramic bowls have been successfully used; however, blue, brown or other colored glass vessels will not collect ORENE in the bag-form.*

For the purpose of elucidating this technique a 5 normal (5 N.) solution of NaOH is used. However, no definite optimum concentration of NaOH can be given for it varies widely with the varying energy states of the atmosphere. The optimum concentration for ORENE L-(Life)* qualities would be that which afforded good growth and yet was the least concentration which would do so. This value can vary day by day.

The wide-mouthed, clear glass vessel is filled to one-half full with 5 N. NaOH solution and placed on an asbestos mat or other protective tray inside a building. It is left thusly until the ORENE starts to grow. From time to time additional water is added to maintain the original level. The time between when the vessel is first installed and when the ORENE starts to grow is another variable. There is an initial lag or soaking period while the OR potential seems to be building up.

* [Editorial Note:] The terms "L-qualities" and "bag-form" will be explained in a different context.

This has always taken from 3 to 5 days. In addition to this, other factors dependent upon the atmospheric energy state may prolong this period between initial installation and commencement of growth to two weeks or even longer.

Growing ORENE is a moist, clear to a slightly milky, opaque whitish substance. It becomes more and more opaque white as it grows further and further from the edge of the solution. It must be collected while it is still in the moist condition. It undergoes an irreversible change if it once dries out—to E_t^* Reich found that a microscopic control of the state it is in lies in the fact that ORENE is white both macroscopically and microscopically, while E_t is chalk white macroscopically and black microscopically. E_t should never be mixed with ORENE, but always kept separately and away from each other.

The ORENE is best collected by loosening it into sheets with a spatula and then pushing the sheets upward using a rubber policeman. All ORENE should be removed at this time—as any fragments left will change into E_t .

Ia Production of Standard Basic White ORENE (Oe):

*Variation A—Filamentous Form**

The same basic procedure as for standard basic white ORENE is followed with the following addition. Instead of collecting it only on the sides of the collecting bowl, a four-inch clay florists' pot is placed upright in the collecting vessel. The ORENE forms both on the inner and outer sides of the upper part of the pot. Its form there is in long slender massed filaments that may attain a length of 1 to 2 inches.

II Production of Standard Neutral White ORENE (Oe):

The same general procedure is followed as for the production of standard basic white ORENE. However, a 3N. NaCl (sodium chloride) solution is used instead of the 5N. NaOH solution. This arrangement is slightly slower in initiating the first growth, but the total growth is quite similar. Macroscopically, both of these solutions give rise to ORENES which appear identical. The pH of the ORENE gathered from above the NaCl solution is 7.0 or very close to it. This is the bag-form of standard neutral white ORENE. The collection and preservation of this ORENE is identical with that of standard basic white ORENE.

* [Editorial Note:] Elucidation of these terms will be made in a different context.

III *Production of Standard Acid Yellow ORENE (Oe):*

Source material for yellow ORENE:

Crushed Melanor rock, Melanor scrapings or Brownite.

The crushed Melanor rock or Brownite is sifted through a No. 10 mesh sieve and the material larger than No. 10 mesh is rejected. Most of the Melanor, being of a bionous nature, goes through the sieve and remains with the screenings. The screenings are kept sealed in quart Mason jars until used. These jars should be stored away from any used building as they would contaminate it. *Warning must be made to never attempt to heat this material to dry it out. Severe excitation results from any applied heat over ca. 100° F.*

Extracting solution:

Aqua regia prepared as follows:

3 parts concentrated HCl (specific gravity 1.19)

1 part concentrated HNO₃ (specific gravity 1.42)

These are mixed immediately prior to use.

Extraction of ORENE:

A one-quart Mason jar is filled to one-half full with the ORENE source material. In view of the fact that the source material is from natural sources and thus variable, along with the fact that it can not be oven-dried, volumetric measure is used rather than weight. The source material is then submerged to a depth of 1 inch by the addition of 200 to 250 cc. of fresh aqua regia extracting solution. There is usually little gas formation. The supernatant solution is a dark reddish brown at first with a slight greenish tint. After 24 hours this greenish tint leaves. The mixture is stirred several times during the extraction. While some of the ORENE goes into the acid liquid immediately upon the addition of the acid, it has been found that near full extraction occurs in 48 hours. The extraction takes place at room temperatures and in light.

At the end of 48 hours, the supernatant fluid is decanted in such a manner that no particulate matter is included. The remaining sludge is then washed with 200 cc. of water and, after it has again settled, decanted again. The last step may be repeated again if ORENE is still present in the washings. The presence of ORENE may be determined by the following test: To 5 cc. of the remaining fluid (add water if necessary and filter to remove any particulate matter) add 4 drops of 5 N. sodium hydroxide solution. A fast forming reddish precipitate which redissolves upon further reacidification of the fluid indicates the presence of

ORENE, and further washing and decantation is indicated. Color is also indicative. If ORENE is still present the solution will have a greenish cast to it.

The concentrated ORENE-containing acid solution should be kept separate from the more dilute washings. The concentrated acid solution is a clear dark red fluid, and the shade of red varies slightly with the source of ORENE. It may be stored at room temperature in sealed bottles for apparently indefinite periods.

IV Production of Standard Basic Yellow ORENE (Oe):

Materials used:

Standard acid yellow ORENE
5 N. NaOH solution

Basic procedure:

Standard basic yellow ORENE is made by precipitating the ORENE out of the acid solution by the addition of a base. The pH of the standard acid yellow ORENE is about 2.0 (colorimetric method). The ORENE stays in solution until pH 3.5—3.8 where it starts to precipitate out. It will not redissolve at this pH. It has been found that it takes 15 parts of 5N. NaOH to change the pH of 10 parts of standard acid yellow ORENE to pH 4.0. The addition of 3.5 parts more NaOH brings the pH to 10.0.

The 5N. NaOH is added to the acid solution slowly—redissolving any precipitate as it forms by stirring. The ORENE containing precipitate is a thick, syrupy, reddish material and occupies a volume, after two days of settling, twice that of the original standard acid yellow ORENE solution.

Separation of ORENE:

The syrupy mixture is thoroughly agitated by swirling and then poured into a No. 5 paper filter cone. The precipitate is washed two to three times with distilled water and the washings discarded. The precipitate itself is removed from the filter with a spatula and rubber policeman to a clean glass plate. This is standard basic *yellow* ORENE. It is insoluble in water, bases or organic solvents. It is stored open in the refrigerator, in the bottom of which is kept a wide-mouthed jar or bowl of water to maintain a high humidity. CAUTION: *At no time should heat in any form be applied to the ORENE.*

Standard basic yellow ORENE is not stable, and where it is specifically needed, it should be made fresh.