
Recent Paranormal Observations of the Atomic Structure of Orbitally Rearranged Monoatomic Elemental forms of the Transition Metals

by [Gary Pnym](#)

Historical background, instrumentation

- Between August 1895 and October 1933, Charles W Leadbeater and Annie Besant of the Theosophical Society conducted clairvoyant studies of the atomic structure of the elements of the periodic table and some compounds. Both of these individuals had previously awakened kundalini; Leadbeater has described his having done so by pranayama, which is the same method I used. After kundalini has been awakened, and after the ajna chakra (brow chakra) is fully functioning, it is possible to extend one's consciousness, specifically the faculty of vision, through great ranges in magnification, either up or down in objective size. In yogic writings, this is part of what is allegorically referred to as the ability to make oneself very small or very large at will. These, in Sanskrit Anima and Mahima, are the first and second of the eight major siddhis, The actual nature and extent of many of the siddhis, or paranormal powers, are often (intentionally) described allegorically, and so are widely misunderstood.

Anima and Mahima actually each refer to several different things. One of these, or what actually happens in the case of these observations, is that a projection from the ajna chakra is formed by the yogi; the functional aperture and gain of this protuberant projection or filament can be controlled by the yogi, according to the scale of the object under observation. This extended faculty is symbolically depicted in ancient Egyptian iconography by the small serpent on the pharaoh's forehead, dismissed by most Egyptologists as being just a part of the headdress. By its means, one is capable of seeing objects far smaller and far more distant than is possible by means of any man-made instruments yet devised. Leadbeater, for example, describes an entire spectrum of particle sizes below the subatomic particles.

The results of Leadbeater's and Besant's investigations were published serially as articles in the journal *The Theosophist*. The material was later arranged and published in three editions (1908, 1919, 1951) as a book titled *Occult Chemistry*.

- A British physicist named Stephen Phillips became aware of this material, and in 1980 published a book titled "Extra-Sensory Perception of Quarks", describing the two Theosophist's work and interpreting it in the light of modern atomic theory. Though the atomic structures observed by the yogic faculty, as described by Leadbeater and Besant, did not make much sense to their contemporaries, present day theories of atomic structure and particle physics make their descriptions much more recognizable, validated, and startlingly accurate, as Dr. Phillips was amazed to discover.

Phillip's book was published before the high spin state was recognized. He does notice how the observations match the Higgs superconducting vacuum model, recognizes non-Abelian monopoles with Nielsen-Olesen vortices as carrying quantized flux, and identifies the mechanisms at work underlying quark stability, among many other things. All in all, he did a

fine job of it. [Extra-Sensory Perception of Quarks, by Stephen M. Phillips, PhD, 1980, Theosophical Publishing House, Wheaton IL, ISBN 0-8356-0227-3,

- David Hudson's ORME [patent](#) literature specifically names eleven elements (cobalt, copper, nickel, silver, gold, palladium, platinum, ruthenium, rhodium, iridium, and osmium) as exhibiting the orbitally rearranged state, with the attendant room temperature superconductivity. Later, he announced in his lectures, that he finds that mercury also exhibits the same behavior. As far as I am aware, he has not yet publicly suggested that any other elements (excepting only mercury) are capable of stable ORME states and high temperature superconductivity, beyond those listed in his patent literature.
- (a paragraph on the work of the mathematician Chris Ilert might well go here. His 1991-1995 articles and two books on Calculating Nuclear Binding Energies and Nuclear Shell Properties from a Model using the Platonic Solids, is based on the work of Leadbeater and Besant, and is not well known. The title Ilert choose for the books didn't help: *Alchemy Today vol 1 and 2*)

Recent clairvoyant work

Based on these published materials, and on certain studies I have done, I may now relate some further information regarding monatomic forms of the physical elements, their shapes as monatomics, some additional light on superdeformation, superdeformation's relation to the high spin state, and what these several factors have to do with the manifestation and development of superconductivity.

As monatomics (single, isolated atoms), the elements are yogically observed to display shapes, which turn out to resemble certain of the platonic solids and other unanticipated shapes, more than the Bohr atom most people think of. However, valence structures, subatomic structures, and numerous other complex phenomena can be identified, given patient study, so that the physical basis for our theories are nearly all seen to be revealed, even if they are not implemented quite as we had supposed. The valences take the form of rod-, bar-, and funnel-like shapes, with the large end of the funnel cone pointed outwards. The valence shapes, nuclei shapes, and other observed macro features are of course not solid forms, but are swept volume envelopes, made by the rapidly moving particles which compose the atoms. I will be referring to the "valence structures" etc.; these are equivalent to "orbitals" as used in the ORME acronym.

Dr. Phillips has observed that incongruencies exist between the valences observed yogically, and those predicted by theory; that the number and nature of the valence structures actually observed (in the monatomic state) are not as would be expected, according to present scientific theories of atomic structure. He has made an effort to reconcile the two, theory and observation.

Valency, as observed, can be seen in some cases to be comprised of sets of half valences, so that there are two valence structures for each of the valences allotted in our present theory, and other variations in other cases. Dr. Phillips puzzles over this at length in his book. He never quite makes the connection (though he comes to within a hair of it), or it fails to occur to him, as to how these sets of "half" valences (for instance) relate to, and are responsible for, the forming of Cooper pairs.

Phillips concludes that the majority of the atoms observed by the investigators, and presumed to be monatomic, are actually diatomic, and points out that this assumption clears up most of the apparent difficulties. In this article I will refer to the observed forms as monatomic, for continuity with the original investigators. [\(1\)](#)

Dr. Phillips' book, sadly, has not received much attention. Scientists do not enjoy giving up their theories, but few would argue that the theories as they stand today shall forever remain unchanged. I recommend that those interested read his book, for a hint at what the theories will be ... changing to.

The physical structural arrangement of elemental atoms, and particularly the arrangement of valence structures in the atom, are observed to develop as several periodic patterns. Leadbeater and Besant soon found that the structural patterns do not fit well into the Mendeleev table (which has been found so useful for predicting chemical properties), but the observed structural periodicity is nicely predicted by the periodic system proposed by Sir William Crookes, which was later refined by Jinarajadasa into a quadruple lemniscate. Crookes-type tables, which can be represented by a multi-level 3-dimensional figure 8 pattern, fit the data far better from a structural characteristics standpoint, ****for the purely singular and monatomic forms of the elements****. This is an important point to remember, as the elements have dramatically different shapes when they are observed in chemical combinations.

The elements in Table 1 (below) are yogically or paranormally observed to have shapes which appear as moderately high aspect symmetrical dipoles, when examined as single atoms; ie, apart from chemical-, cluster-, lattice-, or crystalline- influences. They all show symmetry of rotation about their major axis, as well as mirror symmetry about a plane bisecting their major axis. They were aptly termed "dumbbell shaped" by Leadbeater and Besant. The valence funnels are dipolarly disposed on either end of the atom, giving them a distinctive dumbbell shape.

Dumb-Bell Shaped Atom

Dumb-Bell Shaped Atom

In the case of the dumbbell shaped atoms, which might be considered as one of the most puzzling shapes to someone seeing it for the first time, it is arranged as follows. The main or central body envelope is a swept volume which is approximately represented by imagining an elliptical solid, or ellipsoid of revolution, formed by spinning an ellipse on its major axis. The aspect ratio of the major/minor axes (speaking only of the central structure) is greater for smaller atoms in this family, like sodium, where it is approximately 4:1, and becoming relatively "fatter" in the heavier atoms. Monatomic gold has a central body of about 2:1 aspect.



Gold Atom

Each element in the dumbbell shaped group has a total of 24 valence funnels; there are 12 at each end of the atom, representing 6 sets of half valences. The 12 funnels are arranged a bit like blades of a ceiling fan, which rotate on the major elliptical axis of the central body, hence the dumbbell look. The ends of the valence funnels are slightly staggered, alternating up and down slightly as you go around the atom.

Within the central ellipsoid form and the valence structures are found smaller forms (and similarly so for the other element family shapes), which Phillips has managed to relate to protons, neutrons, quarks, and their components. Of course quarks, let alone baryons, leptons, omegons, etc. were unheard of when this information was first published. The smallest particles which make up the physical atom are referred to by Leadbeater and Besant as "ultimate physical atoms", since they seem to be the constituent particle from which all the subatomic particles are built up. They have called these "Anu", after the Sanskrit name for the ultimate particles of matter (it is the same root term used in Anima, "the size of an atom"). There are two types of these, termed + and -. The Anu "particles" are composed of whirls of energy which spin in opposite senses between the + and - varieties. These whirls of energy, when magnified under increasing power by yogic vision, are themselves composed of smaller spirals, and those of smaller spirals, and so on, down through 7 layers of nesting.

Nested Spirals

Nested Spirals

The Anu are many orders of magnitude smaller than the subatomic particles, and the subatomic particles are in turn many orders of magnitude smaller than the elemental physical atoms of the periodic chart. The Anu, and more complex particles, all move at enormous velocities, sweeping out the shapes that I am referring to, and the atom is an extremely active thing to see. It is ceaselessly throbbing, pulsating, spinning, gyrating and precessing with amazing rapidity and vigor when so viewed. Not at all like the billiard ball protons and neutrons with the spherical electron shells many would expect to see. But our dashed expectations are our own fault, rather than Nature's. Still, we are better prepared now than at any time before to understand the remaining secrets of atomic structure; we must only recognize that things are far more complex than we have ever previously supposed. [\(2\)](#)

Table 1 elements are all structurally similar, despite the fact that under our present periodic arrangement samarium (for example) inserts columnarly in VIII between ruthenium and osmium, and sodium falls in group IA with the alkalis. Most of the nonmetallic halides are found, by this faculty, to similarly be dumbbell shaped in their monatomic states. Of the elements in this family, David has already observed ORME state superconductivity which develops in gold, silver, and copper.

Table 1: "Dumbbell" group monatomics, predicted to exhibit the ORME superconducting state.

- Sodium
- Chlorine
- Copper +
- Bromine
- Silver +
- Iodine
- Samarium

- Erbium
- Gold +
- Astatine
- Berkelium
- Lawrencium

+ Already specifically named in David Hudson's patent literature.

The inclusion of an alkali metal like sodium, most of the halides, and so on, flies in the face of existing interpretations as to the underlying causes of the ORME phenomena (which is presently postulated to be a consequence of partly filled orbitals). Many of the elements I suggest in this article to possess superconducting ORME states are, of course, nowhere near the center of the Mendeleev periodic table, where elements with partly filled orbitals are placed.

It would be good to recall at this point that the periodic table was originally developed only as a means of helping us understand the laws governing the elements' chemical properties, and we should not fall into the trap of extrapolating its fine success in this regard to imply that it also applies to, or continues to hold true for, monatomic shapes. To assume that chemical properties are a reflection of an element's monatomic form is not supported by yogic observations. There is little hope in discovering an element's atomic propensity for having an ORME state by peering at the Mendeleev periodic table. This phenomena has little to do with orbital filling as shown there. However, the phenomena and the reasons behind it become clear and plain when viewed yogically.

The actual reasons that certain elements exhibit stable ORME states, form Cooper pairs, and display Type 2 superconductivity (as David has correctly described them as doing), lies in their structural characteristics, and these particular structural characteristics only occur in the monatomic forms of elements, and then only among certain monatomic-form structural families. The valence forming structures (ie, 'orbitals') of the elements named in David's patent literature (as well as mercury, and others), are seen to "rearrange" precisely as David has indicated, and this rearrangement is indeed what leads to their extraordinary properties. Other elements, discussed in this article, not yet acknowledged as ORMEs by David, shall eventually be found to exhibit this same behavior, under appropriate conditions.

The elements which can potentially exhibit room temperature (and higher) superconductivity do not necessarily immediately or spontaneously rearrange themselves into a superconducting ORME state upon disaggregation. They first require an impetus to set them rapidly spinning. High spin is a necessary condition for this rearrangement to occur; it is the first step in how the ORME state is reached. (It should be apparent that to have a rapidly spinning single atom means that it is monatomic.) However, the relatively low energy of thermal collision forces is sufficient to get them spinning fast enough. Simple glancing thermal collisions knock the monatomic atom into a rapid spin, and that is how the high spin state leading to ORME transition is most commonly achieved. That is the reason David had to heat the monatomic material in order to transform it into a superconducting ORME state. It is indeed a strange consequence that thermal energy transfer, in the form of a spin-imparting collision, may act to lower the atomic energy temperature, but it is an observationally evident effect.

The spin of the atom centrifugally causes the valence structures to deflect from the normal positions they have as single (monatomic) atoms. Rearrangement of the valence structures into the ORME configuration then occurs, which, once formed, is extremely stable for some elements. [For some other elements capable of forming ORMEs, much greater excitation levels are required, and stability is also lower.]

Here is how the transition into an ORME works from an observational standpoint. Assume an atom of one of the appropriate families has just become disaggregated (let us say, by some means that

does not impart substantial kinetic energy to it) from a lattice, or crystal, or chemical combination, so that it is free to assume its normal monatomic (family) shape, and is just floating around without much velocity or spin. In its initial condition, upon disaggregating, its valence structures will be arranged in their "normal" symmetrically disposed manner as a monatomic chemical atom. In this shape and condition, it is stable, though it is, of course, able to chemically combine in normal ways, since its valences are as yet unaltered.

How long the atom has to wait for a suitable collision depends on the temperature and population density of its environment. This may be very brief, as some atoms can make this transition at only moderate temperatures. Even if its environment is relatively cool, an energetic collision may still occur, it is just less likely. Eventually (assume), a collision occurs causing it to tumble or spin about its center of mass.

There is a statistical probability that the collision will impart rotation to the atom, in (or reasonably near to) one of the possible spin planes which will deform the valences into one of the possible ORME configurations for the particular atom.

When an atom is set properly spinning and on its way to forming an ORME configuration, the outreaching valence structures are flung centrifugally from their normal orientations, and this always happens in the manner that most increases the atom's moment of inertia in the closest ORME spin plane. For example, in the case of the dumbbell shaped atoms of Table 1, this would be a tumbling of the major axis itself (ie, the major axis is rotating around a line passing through the atom's center of mass and orthogonally bisecting the major axis), and all the valence structures at either end of the dumbbell swing outwards, away from the center of mass of the atom, to align or cluster towards parallelism with the atom's tumbling major axis.

The atom thus deforms as centrifugal forces overcome the forces which hold the valence structures in their "normal" positions. It just happens fortuitously that the Coulomb forces which want to keep the valence structures separated, and the centrifugal forces the valences actually experience under high spin conditions are similar in magnitude. The atoms and their substructures are extremely stretchy and springy; this should not come as a big surprise, since after all, they are basically bundles of forces and masses. As rearrangement of the valence structures takes place, it acts to reduce the spin of the atom, similar to how spinning ice skaters can slow down by extending their arms outwards.

However, if enough angular velocity has been achieved, the valence structures ("orbitals") rearrange into two groups, like two bouquets of funnel-like flowers, with one group swung centrifugally outwards on each end of the tumbling, now highly elongated atom. In this superdeformed condition, their outermost ends (where the chemical bonds form) approach each other. When (and if) the coupling ends of the valence structures come into close enough proximity, they link together in pairs in a specific manner. In other words, in this superdeformed condition, the atom becomes able to bond to itself, much the same way it would bond to another atom, only more tightly. When this happens, it looks a bit like the atom is "hugging" itself with its multiple valence "arms", all joined together in pairs. It is like when you stick your hands into the opposite sleeve of your coat on a cold day.

To yogic vision, this is what actually happens physically and structurally, corresponding to what is termed in modern scientific theory as the formation of Cooper pairs. It is the forming of a micro-cosmic orbit, so to speak, at an extremely tiny atomic scale. In a sense, it seems ORMEs are metaphysical, even from a structural standpoint; they are like the atomic equivalent of the ancient adage: "Turn inwards, and know thyself."

When the valences are all paired together, the atom will look nothing like it used to, from a chemical properties or analytical standpoint. No free bonds are left to form compounds. Externally it appears

inert, all closed up, not a valence to be seen. Its spectral emissions will be entirely different. David's statements here are right on the mark. This closed-up-armadillo-like structure is why they are insoluble in the strongest acids, capable of withstanding great temperatures, and so forth. The internally closed circulating flow, through the self-joined valences, is the source of their individual Meissner fields.

It is important to note that it is also possible to have partial ORMEs, in which some of the valences are "normal", and free to form chemical bonds, while the others, on the same atom, are coupled as Cooper pairs. These "partial" ORMEs may result from either a marginal collision, resulting in an incomplete ORME formation; from an odd collision event that knocks two valence structures together just right to cause them to join; from a fully paired ORME that experiences a partial uncoupling of its paired valences; and from other less probable events. Varying degrees of "partiality" are possible, in steps of one valence structure pair at a time, from all to none. (3) This is a bit like the Cheshire cat, who gradually disappears, a little at a time, till all you have left is the smile.

Partial ORMEs are less stable; when the still exposed valence portion of a partial ORME enters into a bond with another element, etc., this can introduce other internal changes in the partial ORME which disrupt the remaining Cooper pairs, causing them to decouple. Partial ORMEs having chemical bonds to other atoms may eventually relax their Cooper pairing and drop back into a normal metallic or chemical atom state.

There is no question but that many of the naturally occurring and manufactured ORMEs David has been working with are, in fact, partial ORMEs. The natural ORME materials found in the tailings and volcanic deposits Dave is using contain or comprise a mixture of both completely and partially formed ORMEs. The partially formed ORMEs components exist in varying levels of completeness in their Cooper pairing. Of this raw material mix, the natural, partially formed ORME atoms which still remained semi-uncoupled were able to bind with his cyanide solution. That is why they were able to be caught by the chemical leaching process of his tailings recovery operation, leading Dave to his path of discovery. This was only possible, and only happened this way because partially formed ORMEs still retain some of their metallic attributes. The fully formed ORMEs do not act like metals at all, and do not in the least interact chemically with the leaching process cyanide. If all the ORMEs in the tailings had been 100% Cooper paired, they would all still be sitting in those tailings piles, and Dave would still be growing cotton; the cyanide would have never caught them.

It was only the incompletely or partially formed ORMEs, still weakly metallic, which were picked up by the recovery solution. Fortunately however, the partially formed ORMEs still form linkages with fully formed ORMEs through their Meissner fields, even though the fields of partial ORMEs are weaker. And so both varieties were carried along together by the recovery process. The partial ORMEs reacted with the cyanide (using what free metal bonds they had left) and were washed out with it. These captured partial ORMEs in turn dragged the fully formed ORMEs along for the ride, pulling them by their Meissner fields like a big dog on a leash, towing its owner. The 100% ORMEs are easy for these partial ORMEs to pull around, since the full ORMEs offer no resistance at all. No other chemical attachment forces can act on them (chemically speaking they are as slippery as a greased pig), and so they obligingly follow their more chemically attached partial ORME partners, being pulled along as if they were riding on ball bearings.

Later, when the solution mix of partial and complete ORMEs is subjected to further chemical separation methods, the Meissner leash connection between them eventually gets severed. This is usually through the full ORME's stronger attraction to the Meissner fields of other full ORMEs, thus breaking up the partnership. The partials are eventually removed through their still semi-functional metallic reactivity, as an "impurity" along with the precious metals. This leaves behind the fully formed ORMEs, clogging up Dave's process solution, and causing David and his associates so much bafflement when they were found to resist all known forms of analysis.

Fully formed ORMEs will not react with hydrogen cyanide any more than they do with aqua regia or anything else. Their main interaction with the external world is through their Meissner fields. In Nature, only other ORMEs, partial or complete, speak their language. They all ride along together in a world of their own on the waves of magnetic and electric fields that pass through the earth.

David's patent literature says the following:

"Further, the applications to which the ORMEs are directed will establish their relationship to a specific T-metal by virtue of the manner in which the ORME performs in that application as compared to the performance of commercially available derivatives of the T-metal. An example is the performance of commercial rhodium as a hydrogen-oxidation catalyst compared with the performance of the rhodium ORME as used in a hydrogen-oxidation catalyst."

Partial ORMEs will still work, to some extent, depending on the degree of partiality, in fuel cell catalysis, for the same reason they react with cyanide; a consequence of the weakened metallic properties they retain. Dave has indicated in his lectures that some elements in his patent are susceptible to nitric oxide destabilization as ORMEs (specifically excluding gold, which of course does not react with nitric oxide, even in its metallic form). This then, strongly suggests that these are not 100% coupled ORMEs, in which he has observed this effect. 100% coupled ORMEs, regardless of element, will not react with nitric oxide. They will not do anything in a fuel cell. Nor will they form bonds with cyanide, acids, etc. By definition, a 100% ORME is one which has nothing - no bonds - remaining but Cooper pairs, so it *cannot* react chemically; it has become incapable of doing so. Only partial ORMEs may react with nitric oxide, or other chemicals. To repeat myself, in 100% ORMEs, all the valence structures are coupled and closed.

Dumbbell group atoms of Table 1, with their 24 valence structures capable of forming up to 12 pairs, thus have from 0 to 12 levels or stages of partiality (ie, orbital rearrangement), with zero being a normal chemical atom. (4) Bars group atoms, listed in Table 2 (and discussed later in the article), with 14 valence bars, may form from 0 to 7 distinct levels of partiality.

Presently, I do not believe Dave or his associates are aware of the distinction which exists between full and partial ORMEs. (5) It is obvious that determinations as to whether 100% Cooper paired ORMEs are best suited to, and should be supplied for, medical and philosophical uses are not possible as long as there is no such awareness. Depending on the element, only a partial complement of Cooper pairing may be needed to prevent heavy metal toxicity in the body. For example, partial pairing, from a toxicity standpoint, is not even an issue for a nontoxic element, such as gold. But fully paired ORMEs are more effective and efficient in the intended applications, due to their stronger Meissner fields, which is the number one active ingredient.

But I shall also suggest that a complement of partial ORMEs helps the body to utilize ORMEs better. Perhaps, I shall suggest, the body may wish to have a certain amount of certain partial ORMEs to act as tethers, to keep the 100% ORMEs on a leash, at the place where they are needed. Perhaps the partial ORMEs are a natural "handle", provided by Nature to help hold onto their more slippery cousins. The fact that partial ORMEs that have first been reacted with HCl are reported to be most effective, eg when administered by injection, strongly suggests this is so to some degree. [These were partials or the HCl could not have reacted with them.] Or perhaps partial ORMEs are a hidden danger, waiting for those who ignore them to learn a tragic lesson from. Perhaps all these things. The subject of partially formed ORMEs needs to be closely examined, in the context of its implication for each of these elements.

The subject of partial ORMEs is the main reason I have decided to submit the information in this article. There is a present lack of understanding here, and hopefully these explanations will be plain and obvious enough to help remedy this. I would rather that someone else had pointed out, but this

hasn't happened.

Reasonably high yields of fully coupled ORMES are obtainable by simply processing monatomics in a finely divided form for a sufficient length of time at optimum temperature and pressure in an inert gas atmosphere. The inert gas atoms provide an effective spin-inducing collision mechanism. The lack of external valencing of the inert gases results in more effective spin-inducing collisions than for any other medium. Batch yield, or a determination of partial ORME content can be gauged by screening a sample with aqua regia, fluorine, hydrocyanic acid, or other powerful reactants, depending on the ORME elements involved. If it doesn't react with those, it is certifiably highly Cooper paired, and obviously safe for the body. There are no doubt other partially paired gaussian distributions for each of the various elements, which may be certified as safe under less stringent criteria, but these determinations need to be made in an informed, intelligent, and demonstrative way. There will always be some partials produced by any practical process. David's methodology, as gleaned from his lectures, presently seems to include no provision or means to analyze, monitor, regulate, or optimize the product ratios of these partial forms, let alone assay or separate partials out according to the discrete levels or stages of their Cooper pairing.

The stability (or actually, lack of stability) of the ORME states of some of the other elements I speculate about in this article may render them unsuitable for consumption. However, any ORME elements which are observed in any quantity in Nature are arguably stable enough, or they would have long since disappeared as such forms. I suggest that less stable ORMES shall nevertheless be found to be of great interest in other exciting ways.

Loading the ORME atoms with more energy than they can handle will also break up the Cooper pairs. One way this can happen is as when Dave exposed the material to direct sunlight. When overloaded, the links between the ends of the valence funnels or bars burst apart like the joint of a water pipe when forced to carry too much pressure. This is the structural observation of what happens in a superconductor collapse, such as occurs with experimental and commercial superconducting-ring energy storage devices, when too much energy is pumped into the Meissner field. Most of these devices develop Type 2 superconductivity using cryogenic temperatures, but the formation of Cooper pairs in the metal lattices of low temperature superconductors follow valence behavior principles related to those occurring in ORMES. [\(6\)](#) The self-bonding of ORMES has the decided advantage of not having to contend with local lattice thermal jitter, and thus functions at high external temperatures.

It appears that overloading is what is occurring in the electro-winning method Dave uses in his patent literature to reconstitute the group VIII ORMES into metals. On this the patent states:

"ORMES are transformed into their original T-metal by means of a chemical bonding with an electron-donating element, such as carbon, which is capable of d orbital electron overlap and "spin flip". When the G-ORME is chemically bonded to carbon in an aqueous solution of ethyl alcohol under a specific potential, carbon monoxide is formed and the ORME forms Au+(Au⁺, a black precipitate, which under continued application of potential and dehydration reduces to Au+1 (Au-1, a metallic bonded diatom of gold. **This invention establishes that a high potential applied to the solution forces an electron into the d orbital, thus eliminating the electron pair.** The first potential, which for G-ORME is approximately -2.2 V and for other ORMES is between -1.8 and -2.2 V, re-establishes the d orbital overlap. The final potential of -2.5 V overcomes the water potential to deposit gold onto the cathode." (**'s added.)

And again, later:

"An ORME can be reaggregated to the T-metal form using conventional wet chemistry techniques, by subjecting the ORME to a two-stage electrical potential to "oxidize" the

element to the metallic form."

It seems that what is happening here, in the description of converting gold ORMEs (or G-ORMEs, as they are termed) to metal, is that the partial ORMEs are reacting mildly with the cyanide solution (the carbon referred to), dragging fully formed ORMEs along in the process, just as I have described earlier as happening for Dave's heap leaching process. The chemistry that is referred to as going on is all associated with the weakly metallic aspects of the partial ORMEs only. The 100% ORMEs don't participate in it. The part I have highlighted (between ******'s), is where the energy loading that breaks the Cooper pairing occurs, coming from the electric potential in the cell, and Dave is specifically recognizing that and pointing it out in a subtle way. The mistake is in failing to understand that partially formed ORMEs are involved, and what their role is in the process. This is not intended as criticism; the best present theories of atomic structure which he is applying to the phenomena are simply not yet able to provide many clues as to the true explanation of what is going on.

In Dave's lectures and in the 5/26/1996 interview with binga, he indicates he uses a chemical analysis on test materials, to determine their ORMEs content, which appears to take several days of running to complete. This is a proprietary method he has not given any details on, but has released on disclosure to certain parties such as MIU. Without knowing the details on this, it is likely for the reasons I have discussed, that Dave's analysis method (being chemical) acts on partial ORMEs, though the process may well also accumulate full ORMEs, by Meissner linkages, similar to the way his tailings recovery process did. I tend to suspect that this is the case, even though it seems to not yet be apparent to Dave that a distinction exists in ORMEs, between full and partial varieties.

In determining whether a particular element in the periodic table may exhibit structural bistability, having both a stable chemical atom state and an ORME state, there are several factors to consider. Everything about these ORME's behavior is structural in nature. In order to form a true, complete ORME state, all the valences must be paired up as Cooper pairs. Ideally (though not in practice) only elements having a number of valence structures divisible by 4 can exhibit ORME behavior: the valence structures divide into 2 opposite groups under high spin. There must also be an even number of valence structures in each spin-divided group in order to form Cooper pairs, so all the valences "disappear". Hence the factor of 4. Element families which have a number of valence structures that is a multiple of 4 meet this ideal, and form symmetrical ORMEs.

There are three atomic structural families among the physical elements that satisfy this "ideal" criteria. These are called the dumbbell, octahedron, and tetrahedron families by Leadbeater and Besant (viewed as monatomics), and have 24, 8, and 4 valence structures, respectively. Gold, silver, and copper from David's patents are from the dumbbell family. Mercury is from the tetrahedral family.

All the other elements in David's patent are from another family shape, which doesn't meet the criteria of having a valence structure count divisible by 4, but manages to get around this (and very successfully) by utilizing an unbalanced spin in forming ORMEs. This is the "bars" family, each element having 14 valence structures. These are called bars, as the valence structures resemble bar shapes, radially projecting from the center of the atom. The valence bars are (monatomically) disposed towards the 6 face centers and 8 corners of an imaginary cube (the cube shape is not visible in the atom, but that is how the bars arrange themselves). When bars elements form monatomics, they form (when spinning) an unbalanced dipole, with 6 bars (3 Cooper pairing sets) grouped on one end, and 8 bars (4 Cooper pairing sets) on the other end.

Bar Group Atoms

Bar Group Atoms

Besides the dumbbell and bars families, there are also atomic families with shapes resembling octahedrons, cubes, tetrahedrons, spikes (shaped similar to carpet tacks), and 6 pointed stars. There is a separate group for hydrogen. I will not discuss these groups except for briefly mentioning a few elements from some of them, that appear to have potential for ORMEs formation.

Table 2: "Bars" group monatomics, predicted to exhibit superconducting ORME states. This group has the highest thermal-collision statistical probability to form an ORME state, based on number of possible spin planes, resulting in their having lower average temperature transition points.

- Iron
- Cobalt *
- Nickel *
- Ruthenium *
- Rhodium *
- Palladium *
- Osmium *
- Iridium *
- Platinum *
- Plutonium
- Americium
- Curium

* Already specifically named in David Hudson's patent literature.

The "bars" family, followed by the "dumbbell" family have more possible spin planes than the "octahedral" and "tetrahedral" families, which can all (potentially, -even the cubics) form complete sets of Cooper pairs. This gives bars and dumbbell group elements a statistical advantage, by reducing the number of thermal collisions necessary for a successful valence rearrangement transition. This seems to explain why such a high percentage of these elements (bars group in particular) occur in Nature as ORMEs, and hence why the majority of the ORMEs David has discovered to date are in this category. The bars group have long extended valences which bend together to couple relatively easily, and the large number of them means the required angular deflection (the angle between the valence bars) is comparatively small compared to the octahedrons, cubics, and tetrahedrons. All these factors tend to make the bars family ORME states highly stable

and easily formed.

On the other hand, the unbalanced high spin state of bars group elements make them distinctly more susceptible to the formation of partial ORMES. This conclusion also appears substantiated in the higher relative ratio of partial to complete bars family ORMES, as found in Nature. Since these elements are the largest constituent for ORMES in Dave's volcanic mineral deposits, it is unavoidable that the production process will generate large amounts of partial ORMES, with or without awareness of the fact.

The dumbbell family has an infinite number of spin planes, but they are not uniformly distributed, being all planes which make up the set that include the line of the major axis. In other words, if you imagine a spin plane which includes the line of the major axis, then rotate the spin plane using the major axis line as a pivot, every angular position the plane can have, as it rotates in this manner, represents a possible spin plane; there are an infinite number of such spin planes in 2π radians. The bars family, on the other hand, while actually having no "ideal" spin plane possibilities (its valence structures are not multiples of 4) is nevertheless statistically more likely to benefit from a particular collision. Its '6+8 arrangement' unbalanced spin plane combinations are evenly distributed, and valence positional variance, plus the tolerance window for collision angles, eliminates nearly all non-ORME-forming collision "blind spots". As a result the bars family enjoys a much greater total number of potentially transitionable thermal collision vectors.

Among the octahedrals, titanium, and zirconium appear to have potential for ORME formation, based on their structural proportions. Titanium and zirconium are oddities within this family, each having 4 long narrow valence arms which bifurcate at the very ends. They have a strong affinity for carbon, as their valence terminations are identical in structure to that of carbon's valences. Most of the other octahedral elements (and more so with cubics and tetrahedrals) have short broad valence funnels, which would have a hard time of it, trying to reach around to each other to form a Cooper pair coupling. Of the other octahedrals, lead looks like it would be the next most likely possibility; its valence structures are a little longer, proportionately.

Once the valence structures of an atom have been self-coupled into Cooper pairs, the atom may (or may not!) remain this way. Upon fully coupling, the valences have a strong mutual affinity to staying paired; after all, it is coupling to itself, and so the compatibility factor is pretty high. Many elements highly prefer being in the ORME state.

Some of Nature's elements form extremely stable and tightly clenched ORMES. Other elements simply cannot, or else barely can, bridge the distance to make the connection, even when spinning enormously fast. These latter cases are much less stable as ORMES, though they may still form under appropriate conditions. Elements having stubby valence structures must be spinning much faster to deform the valence positions, than elements with longer more gangly valences. Greater "at rest" separations between valences means that more deformation must take place before Cooper pairing can occur. Elements with platonically shaped monatomics having fewer faces are more disadvantaged in this way. Elements which are less structurally disposed to forming an ORME state will require proportionately higher collision temperatures, to get to the coupled superconducting condition, once they have been disaggregated into monatomics.

Consequently, even though the elements of certain structural families may potentially form ORMES, some of them, such as many of the octahedrons, cubics, and especially the tetrahedrons, can only do so under extraordinary conditions. Even then, once formed they may not have sufficient stability to remain rearranged when their spin drops below a certain rate. The restoring forces trying to pull the valences apart will become stronger than the self-coupling forces, if the atom's spin rate drops too low.

Of the cubics, some of the heavier elements, most notably tantalum and lutetium, have relatively

long valence funnels and may be able to successfully form Cooper pairs under suitable conditions. Like the bars family, these cubics would have to enter an unbalanced spin in order to form ORMEs. That is, the cubic elements must spin so that there are two valence funnels (1 Cooper pairing set) on one end, with the other four valence funnels (2 Cooper pairing sets) on the opposite end of the spinning atom, in order for complete pairing to be possible.

Mercury is a special case, coming as it does from the tetrahedral structural family, with only 4 possible spin planes (2+, 2-) which might form an ORME superconducting state. How is it that mercury has managed to have this capability and be discovered already? One might think that the tetrahedrals would be among the least likely families from which would appear a stable ORME. To yogic vision, mercury (like Ti and Zr) is seen to be a bit of an oddity, compared to other elements in its family. It has some major subatomic structures in common with gold, and while showing the expected structural family features, it is oddly proportioned quite differently than it might be expected to be as a tetrahedral family element. These nonconformities enable it to deform more than other tetrahedrals with the same amount of spin, allowing it to rearrange and achieve a superconducting state more easily. When it superdeforms, it winds up looking more like a gold atom that has two big valence structures on each end, rather than like the other tetrahedrals.

Vaporizing mercury in an inert gas atmosphere of sufficient temperature and pressure will form Hg-ORMEs. This is an effective means of forming ORMEs for any element. Seeding this process with some already formed ORMEs will help catalyze the transition. Occasionally this even occurs in a minor way in mercury vapor turbines, but has not been recognized. With only four valence structures, there are only three free state possibilities in the case of mercury: metallic (chemical) atoms, 50% partial ORMEs (1 set of valence structures paired), and complete ORMEs (all 4 valence structures paired, into 2 sets).

In David's patent literature, he uses this process in the case of gold:

G-ORME was prepared from metallic gold as follows: ... (19) The monoatomic gold is placed in a porcelain ignition boat and annealed at 300 C under an inert gas to remove hydrogen and to form a very chemically and thermally stable white gold monomer

This step appears to say that the 300 C temperature and inert gas are mainly there in order to facilitate removing the hydrogen. The description might leave one with the impression that if the hydrogen could only be removed in some other lower temperature manner, perhaps the process would still succeed, and that the ORMEs form spontaneously. Well, they do, in a manner of speaking, but it is because of the high temperature, and the presence of the inert gas that the "spontaneity" happens. As soon as they become monoatomic, their exposure to these conditions gives them an excellent opportunity to experience thermal collisions, knocking them immediately into the high spin state that leads to their forming into Cooper paired ORMEs. The environmental conditions are the most important parts of the equation. Though he has mentioned using welding grade argon, David says nothing in his patent about the pressure he is doing the annealing at, and has not mentioned in his lectures whether he has experimented with gas pressure as a variable. The gas pressure is not a critical factor to success, but it does impact the process rates.

For each particular element, there shall be found to exist a range, or window, of conditions of pressure and temperature, depending on which inert gas is used as the atmosphere, which will result in ORMEs (and partial ORMEs) formation. Besides the associative ORMEs formation process, there is also a dissociative process operating simultaneously. As in all other thermally driven reactions of this nature, the rates of both processes increase with temperature. Optimum ORMEs formation will occur under specific conditions, and may be arrived at computationally, but these may also be determined empirically (simple trial and error) for specific cases. Once the process has remained at some fixed conditions long enough for the rates to stabilize and reach equilibrium, no significant further change in product quantity will occur. In ALL cases, the process result will be a combination

of complete and partial ORMES, to some degree. The object is to set up the process to maximize or peak the full/partial ORMES ratio for each element.

Remember the 300 second spectroscopic burn David refers to in his lectures? I suggest the following be considered as an explanation of what was happening there, in illustration of how these two process rates I've just discussed operate. As a premise, I believe the samples Dave was using in these spectroscopic experiments were most likely 100% paired ORMES to start with. The sample material (I am supposing) had inadvertently been selectively concentrated that way (as 100% ORMES), by his tailings recovery process, as explained earlier. I think he may have had quite a bunch of this material around, that nearly all the partials had been removed or excluded from, as a side effect of his refinement operation, and that this was where the materials he was using at the time came from. But any other 100% source he may have had would produce the same results. The spectroscopic arc is inert gas shielded, and very hot. Just like what I've described as an efficient ORMES formation process, and just like what is in Dave's patent for making ORMES.

What do you suppose would happen to 100% ORMES, under those conditions? They obviously cannot follow the association process function, since they already are all 100% paired. The only thing they can do is begin to dissociate, once the temperature drives the function high enough. Dissociation will continue until the partial population count (within a particular minute volume in the arc) becomes high enough that the two rates, associative and dissociative, come to equilibrium. Dissociation will be the strongly dominant process. ORMES vaporized off the sample will be turning into partial ORMES, as a dissociative process, as collisions with inert gas atom break their Cooper pairings.

Dissociation for the first element (palladium) seems to commence at 70 seconds into the burn. At that time, the ORMES start vaporizing. As soon as the ORMES leave the sample's surface, partials begin to form, and spectral lines begin to show up. Only when ORMES vaporization and dissociation starts, do platinum group spectral lines appear, those metal lines being emitted by the unpaired portions of the newly-dissociated partial ORMES. The dissociation, is occurring in an ordinary manner, by means of thermal collisions between the ORMES and the hot inert gas atoms occasionally breaking some Cooper pairings in the ORMES.

When Dave stopped the burn at 68 seconds, thinking (in those early days) that he should then have only metals left, he had only succeeded in further purging his 100% paired sample of extraneous impurities of lower boiling point. No transmutations were occurring, or are needed to explain the results. Only ordinary associative/dissociative reactions, acting on some very unordinary orbital arrangements.

Later, when the sample was analyzed, no evidence of metals could be found in it. Why? Because the sample was still 100% ORMES, as it had started out. The dissociation was occurring among the ORME atoms in the arc, just where you would expect it to be occurring, not in the relatively cooler sample body. These vaporized and Cooper-dissociated partials, after emitting their spectral lines, get carried off in the draft of the inert gas. So no metals (or partially metallic ORMES) would be expected to remain in the sample. Had the arc vapors been trapped and condensed, a small quantity of weakly metallic ORMES would have been found there. What if the original sample had not been 100% ORMES, as in my premise? That seems improbable to me, as the unpaired metallic portions of the partial ORME atoms would then have shown up in the quantitative chemical analysis of the sample, both before and after the burn.

In his lectures, Dave often speaks of how the atoms are undetectable, don't match any known spectral lines, defy analysis, and can't be dissolved in aqua regia. Then in almost the same breath, he tells of seeing platinum group spectral lines though no metals can be found, that the material works in fuel cells, can be analyzed in things like Acemannan, carrot juice, and cow brains using chemical means, and recovered in his cyanide to the point of clogging things up. Now it's chemically reactive ... now

it isn't. These are incongruous statements, and I sense he is uncomfortable with them. I believe many others sense a problem here, too, though they haven't been able to put their finger on it. I have tried to explain here, that the seemingly dual personalities of this stuff are not at all as contradictory as they seem on the surface. There is an explanation. It just requires a deeper understanding of what the materials are doing, way down there in the tiny world of Anima. When you look very, very closely, and see that Cheshire cat smiling at you, it all makes sense. I hope some of Dave's friends will take this to him. This is what he needs to know.

At some future time, it may be possible to comment further on these interesting topics. [\(7\)](#) I invite forum subscribers to pursue this area of study as a potentially fruitful direction for new discovery. Science has indeed come a long way. But do not rest just yet.

[Return](#)

About the author

Gary Pnym describes himself as a kundalini awakened American engineer. Gary is a single white male in his mid 40s who works as an engineer with a large US company. Gary has "a background in physics, electronics, and knows a few things about chemistry and the elements."

"I am fortunate to have copies of the 1919 and 1951 editions of Occult Chemistry. Over twenty years ago, in the 1970's, I corresponded at length with the Theosophical Society's Olcott Library (Wheaton, Illinois), and they graciously provided me with a good deal of further information. Since that time, and during my own studies, I have awaited in hopes that the Theosophical Society would reprint all the original material. This has not yet occurred, though I continue to hope for it. Editions of Occult Chemistry are now very rare and difficult to find."

As Leadbeater and Besant's work has already been published, presenting a great deal on this subject (even if it is not widely known), and it has been available for some time now, and monatomic are also now becoming more widely recognized, and a certain requisite amount of discussion has taken place regarding it, (thanks to Dr. Phillips), it is at last permissible to comment on the information that has been released occultly, with greater openness, and from the perspective of monatomic research.

FOOTNOTES

1. (1) SO CALLED MONATOMIC ATOMS ARE DIATOMIC [back](#) To state this plainly, the "monatomic" ORMES in Hudson's patents are, in fact, diatomic. It is also clear to me that most of these elements do not exist stably in an isolated, monatomic state, but quickly disintegrate when forced by the Will to assume that condition, although they are perfectly stable as such when in chemical combinations.

(I chose to refer to the elements in my original article as monatomic, prefaced by an explanation of why I was doing so (quoted above), so that anyone sufficiently interested in studying the article material carefully would note this and take it into account in understanding the rest of what I wrote in the article. I knew full well that this brief note would be lost on most

who would read it, but I also knew that those few who would read it very carefully, which should include any scientists, would pick it up.

This was done in the hope of making the content of my discussion at least appear to stand on familiar ground, and so be more acceptable to David Hudson, et al, through a commonality of sorts in terminology.

My taking this approach also considerably reduced the amount of explanation I would have had to include, to make the subject intelligible to everyone, who have been (in the absence of anything else being available) only familiar with ORMEs theory as propounded by David Hudson. Even so it was a rather lengthy article.)

For diatoms, the number of valences will obviously always be even, ie divisible by 2, and so Cooper pairing is freed from the objection that atoms with uneven numbers of electrons could not be completely Cooper paired. The valence funnels "rotate" (as a consequence of the motion of the particles forming them) in alternating senses, as viewed in a sequence going around the atom (e.g. a gold dumbbell - See below). It should be clear that two adjacent funnels, one rotating clockwise, and one counter-clockwise, will coincide in rotation if the funnels are distorted into a loop so that the mouths join. They then form a continuous rotating tubular vortex. This is the physical action corresponding to two electron spins joining and canceling to form a Cooper pair. A similar effect occurs in metal lattices at cryogenic temperatures, except that funnels join between neighboring atoms, rather than on the same atom for an ORME.

Describing ORMEs as monatomic is still justifiable in a sense (albeit technically inaccurate) since the ORMEs state is still the smallest atomic level division that most of those elements remain stable and intact at when isolated.

I will also suggest that, (if you will expand on what I have written in my original article) it should then be obvious that, in addition to the electromagnetic flux carried by the closed loop funnels of ORMEs, other energies may (and do) also flow through these circuit paths, and may (and do) do so in parallel with electromagnetic energy. Since this flux, in moving around this atomic-level closed circuit, passes through the very heart of the atom, it should not be at all surprising, and should indeed readily suggest itself to anyone reading my article and thinking about it that the nuclear strong and weak forces may also participate in this flow (they do). This ORMEs circuit is one of the few cases in Nature in which these internal forces may thus develop macroatomic fields, extending beyond the outer envelope or perimeter of the atoms, and each of these forces (and others still more esoteric) generates a field, which, like the electromagnetic Meissner field, has unique properties, according to the laws governing each of the underlying forces generating those distinct yet co-spatial fields. Like the electromagnetic Meissner field (which Hudson and others have erred in rushing to suppose to be the same as the aura) each of these may vary in the amount of energy they contain, as a function (by specific type) of their flow in the circuit.

Speaking now, in stricter use of the concepts 'monatom' and 'diatom', I offer some further comments which may be of interest. This is in regards to Brown's gas.

Diatomic hydrogen is observed to be an ovoid, containing two triangular "monatoms", each composed of 3 quarks (having 3 anu each). The triangular H atoms are not identical in the types of their constituent quarks; each hydrogen in the diatom has the same mass, but differs from the other as a consequence of their quark components. When dissociated into monatoms, the two separated hydrogen atoms are stable (ie do not spontaneously dissociate further) but I would suggest that they would prefer to be paired.

As monatoms, they loosely associate with free particles, forming something like the atomic

equivalent of the double-layer of continuous-phase charge which forms around colloidal particles to neutralize their remaining charge; it is a less defined layering for a gaseous continuous phase than for a liquid as far as colloids are concerned, and this (gas case) is a close analog of what happens in the atomic state, where the atomic-level vacuum is the continuous phase, and the myriad of loose and undifferentiated subatomic particles are the matter that the layers are (dynamically) formed from around the monatoms, as a loose aggregate.

Diatomic oxygen is also an ovoid, containing two spiral shapes, looking very much like helices of 5 turns each, with each being "wound" in the opposite direction. Like the hydrogen, each monatom of the O_2 diatom is dissimilar, being more positive or negative, respectively, from its mate. Oxygen is also stable as a monatom, but also prefers to be paired. It too can use loose matter to neutralize its monatomic charge, but is entirely much less happy about the situation.

Three such oxygen monatoms may unite to form ozone. These will either be $++$, or $-+$. The helices arrange with their axes parallel, and triangularly spaced as an isosceles, when viewed end on. Leadbeater noted that the positive variety of ozone ($++$) tends to rise, though no tendency to move either up or down is noted for the negative variety. This is further confirmed in that for observations performed at high altitudes, nearly all the ozone found in the atmosphere is of the positive type. In any practical ozone generation system, equal amounts of each type will be formed. While I have not tried it, it appears that it should be possible to separate these according to species, once formed, by placing ozone gas in a potential gradient (- on the upper electrode surface) that draws the two types apart. Ozone that is thus separated by species is substantially more stable and far less explosive in nature than ordinary heterogeneous ozone.

Oxygen is a very energetic and active element, and is capable of mediating several types of energies, some of which are not as yet recognized by Science.

2. (2) OTHER FORCES ARE AT WORK [back](#) There are several forces, flowing between and linking individual anu into associations of the different subatomic particles, and these forces are seen to originate from, and return to, higher dimensions. They well-up and later disappear, in a source/sink fashion, associated with anu forming the ends of their flow paths in our 3 dimensions. Several types of distinct forces transit along the different coils or whorls of the anu themselves. Still other types of forces act through larger particles and atoms, and linking monatoms (for instance) together into diatomic arrangements. Describing all the forces which can be observed at work is a real challenge. It will take a great deal of work to separate and quantify these forces, to reduce them to physics.

As far as I can tell, none of the high energy experiments we can perform actually "create" (or destroy) matter. But this statement must be qualified. Under appropriate conditions, particles already existing in the atomic-level background-vacuum, but still too small (or for other reasons) to be detectable by us, may be caused to thereby associate, and this association forms a larger particle, which *is* detectable. This may make it appear that an energetic photon (for example) was transformed into matter, whereas the photon actually did no more than provide the energy of association for a number of (unseen) particles that were already present.

Likewise, the mass-to-energy losses that are observed, to balance the equations in nuclear disintegrations, etc., are also related to the binding energy of particle associations. The flux between anu is a stream of tiny "particles" (though these are not hard "particles" any more than the anu are). These tiny particles each have a minute mass. The mass of this binding energy stream is a function of the length of the stream; larger particles typically have longer binding streams, since they are composed of more anu. It is the mass represented by the inter-anu energy streams, which represents the mass change in (at least many of) our nuclear equations, apparent as energy. The anu do not change mass, and both types are the same. The larger

particles of matter we observe thus have masses which are integer multiples of the anu mass, plus however much mass is represented in their linking, or binding energy stream. There are a number of different ways (lengths of stream paths) that any particular number of anu may be linked.

This general statement on atomic and subatomic particle mass quanta does not, of course, apply to particles smaller than one anu, such as electrons, photons, etc.

If one takes an anu, and uses the Will to take it apart and completely dissociate it, this can be done, but as soon as the Will is released, the anu reforms again. It is like taking a piece of slinky spring, and unwinding it by stretching it out and pressing it flat on the floor with your hands. But as soon as you let go, it pops back. The individual anu are each (one discovers) direct force-aspect manifestations of a higher Will, which generates and sustains all the matter in the Universe. It is ... in very fact, the "Force", which is with us. This Force originates from a dimension far higher than we (certainly, I) can reach while still clinging to corporeal form. When we try to conceive of the stupendous number of anu, throughout all matter of the visible galaxies, which are being held in existence in such manner, the extent and scope of that Will is truly mind numbing.

If you are interested in gaining insight into the forces at work in ORMEs systems, you might wish to read a book, first published in 1758, by a Slavic Jesuit monk named Roger Joseph Boscovich. Its title is "*A Theory of Natural Philosophy - Reducing to a Single Law All the Forces Which Exist in Nature*" [Theoria Philosophiae Naturalis - Redacta ad Unicam Legem Virium in Natura Existentium]. I believe it is still available from MIT Press, where I got a copy about twenty years ago.

3. (3) MONATOMS SLOW IN DISCRETE STEPS [back](#) According to a reference in Scientific American [October 1991, Spin Cycle - The Spectra of Super Deformed Nuclei, by Philip Yam] from David Hudson's Dallas presentation:

"A spinning superdeformed nucleus slows down in discrete steps, each time emitting gamma rays, or highly energetic photons. The emissions produce a characteristic band of energy spikes all spaced equally apart. The surprise: the spectra of some different superdeformed nuclei were almost identical."

I suggest that these discrete stepped emissions are the result of rupturing the valence circuits, one pair at a time, releasing their circuit energy (as an emission). Since the emission energy is a function of the energy stored in the valence circuit (and so not constant), when they are observed, as reported, to be nearly the same for different elements, then this is only because the atoms were all charged in their circuits to nearly the same energy level; this is most probably a consequence of conditions imposed by the instrumentation environment that the atoms were placed in, and were observed under.

Some of the elements, though capable of forming ORMEs states, are unstable as such unless kept spinning quite rapidly, and would drop out of the ORMEs condition as their spin decreased. The changing effect on atomic moment of inertia is a result of the valence funnels deforming by swinging out into the super elongated shapes, and the same is true in reverse as they release while spinning down. This tends to keep angular velocity (spin rate) from changing as it would normally be expected to, as angular momentum is added or subtracted. If an observer using conventional methods is unaware that this is happening, it can lead to incorrect conclusions about their moments of inertia.

4. (4) ELECTRON ORBITAL MODELS DON'T APPLY HERE [back](#) Although all elements with the dumbbell structure have 12 pairing levels because each dumbbell has 24 funnels, and these combine by two's to form 12 pairs, this has little to do with the number of

electrons (and positrons) inside the atom.

Do not try to overlay the orbital theory of the atom, onto yogically observed *real* atoms. You must recognize that while the orbital ****model**** explains a great deal, it is, in the final analysis, only an analogy of reality, and like all analogies, breaks down eventually. Comparing its artificial constructs to real atoms can be confusing.

In reality, yogically observed atoms do not have electron orbitals. They are not constructed as we were taught in school. They do not have a single central nucleus. They have instead multiple "nuclear" concentrations within the atom, and these move about rapidly. That is the basis for the nuclear orbitals which Science has recently begun to appreciate. Atoms are built differently than current theories predict; the forces which hold them together and maintain their shapes are as yet little understood by modern science. However, Science **has** observed, cataloged, measured, and named many of their component particles.

If you will study the drawings of the atoms in Leadbeater and Besant's work you will see that the funnels and bars are formed by the motions of the groups of anu inside them.

The atom is observed to be built from anu, and the quantized energy-particle flux between anu. Even the anu are essentially made of these energy-particles. (Leadbeater has described how this is only an approximately correct statement, see OC 3rd ed, p.19-20). Each anu is composed of the **equivalent** of 49 smaller particles, on the first level.

The lines of force between the anu, are also streams of tiny particles. These particles are the equivalents of electrons and positrons of conventional physics. The positrons are basically the reality behind the "holes" of conventional solid state physics. Their presence and number within the atom comprises the total mass of the atom, both as (by equivalency) sub-components of the anu and as energy streams.

I hope it is clear that each funnel or bar does not represent a single electron, but only a valence. The valency arises as a result of the algebraic sum of + & - charges in them, and is much less than the total charge present. Hence sodium does not have 11 electrons and lawrencium 103 (they do in modern theory, but not in real atoms). They each have many thousands of electrons and positrons.

Those who wish to go into this further (the electron as the basis of 3 dimensional atoms) might hunt down a book titled *"The Electron Theory of Matter"* by Owen Richardson, published in 1914 by Cambridge University; 612 pages. Owen shows quite elegantly how all atomic phenomena can be derived, based on only electrons. Very good book. Pity no one reads it anymore.

5. (5) PARTIAL ORMES [back](#) In my opinion, the ORMES David Hudson and others are working with under the blanket term "ORMES", are predominantly partials of various levels, and in most cases high order partials, > 65% paired, with some 100% species also present. This somewhat arbitrary division includes 4 partial levels of from 8-11 Cooper pairs for dumbbells, and two levels of from 5-6 pairs for bars-family elements.

Partials rapidly become difficult to distinguish, using ordinary methods, from one level of pairing to the next, and from completely paired ORMES, as the pairing complement increases. That is, they behave like 100% ORMES under most circumstances. So the behavior of 100% ORMES is "typical" of the ORME mixes David Hudson is working with, composed of mostly high order partial and 100% ORMES. I said the color (whether they are white or not), does not particularly matter, because high order partials are also white (& fluffy, recalcitrant, etc.), and are in most ways like 100% ORMES. However, I remain concerned about the potential for long term biological effects of certain partials, other than gold.

For your convenience, the following table may help to explain what is happening. I have arranged bars element pairing to approximately match up or correspond to pairing levels of the dumbbell family. This table simply depicts the paired to unpaired funnel ratio, as a percentage.

Dumbbells (24 funnels)			Bars (14 bars)	
# Pairs	ORME Percent		# Pairs	ORME Percent
12	100.0 %	ORME	7	100.0 %
11	91.7	^		
10	83.3	^	6	85.7
9	75.0	^	5	71.4
8	66.7	^		
7	58.3	^	4	57.1
6	50.0	^		
5	41.7	^	3	42.9
4	33.3	^		
3	25.0	^	2	28.6
2	16.7	^	1	14.3
1	8.3	^		
0	0.0	Metal	0	0.0

This table should not be interpreted as describing the degree of manifestation of ORME properties, which are usually not in proportion to pairing complement, but are rather nonlinear for many properties. The table only shows ORMEs structural stages.

With fewer pairing combinations, bars group elements are "lumpier" in their partial steps, while dumbbells have a fairly fine gradation of partial ORME stages or steps. There are also differences in behavior, for the same number of pairs, depending on where the pairs are, relatively speaking, on a particular partial ORME atomic specimen.

100% ORMEs are definitely scarcer in Nature, and in man-made processes designed to create them, than are their less-perfect partial relatives. Perfection is certainly not unheard of in Nature, but it is comparatively rare. It is the pinnacle of achievement, not the rule or the norm. How could it be otherwise? 100% ORMEs do not constitute anything like a majority fraction in Nature's stores of these elements, though they certainly are an important fraction, whose magnitude varies from element to element, and which Science will soon quantify, once it learns how to detect them.

With understanding of how statistical processes function, and recognizing how parallel thermal rate functions (referring here to internal geologic processes) of association and dissociation work, as I describe elsewhere in this article, it seems hard for me to see how someone could draw any other conclusion.

Though I believe David Hudson and company are certainly screening out (e.g. by acid dissolutions, etc) most of the lower order, more metallic-like partial species, and this increases

the relative concentration of 100% ORMEs (and high order partials) in their preparations. But again, remember that acid solubilities of partials cannot be categorically defined, based on pairing alone, since it depends strongly on the energy flowing in the paired valence circuits. More energy flux brings out their ORME-ishness, and increasingly screens (masks) their remaining chemical and metallic properties.

If the association and dissociation processes were symmetrical throughout the ORMEs pairing range, this would result in a gaussian distribution, or a bell curve, centered around 50% pairing, as the highest incidence of occurrence. But there are non-linearities that perturb this.

David Hudson's comments notwithstanding, it is noteworthy that partials participate in metal clusters. They fit a bit awkwardly into the lattice, but they still behave (partly) as metals, depending on their pairing levels. That is why Hudson found that commercially prepared metal standards have a second spectroscopic reading, which shows up late in the long burn, just like his native ORMEs.

David Hudson has stated that ORMEs don't form metal-metal bonds, yet offers no explanation, other than pointing out the obvious implication, that it is due to the presence of ORMEs. Many low order partials exist in and among metals, rather than as monatomics. They might be termed partial-ORME-to-metal alloys. They can markedly alter the properties of the metal, when present in significant amounts. When partial ORMEs are understood, their occurrence and effects in metals should come as no surprise.

An individual, free mon-atom may drop to a 0% ORME state (by any of a number of mechanisms), so that it technically becomes an ordinary metal/chemical atom. But unless it joins an aggregate of metal atoms, it remains susceptible to collisions and other events, which now in all probability would knock it back into some level of ORME state. Joining a metal cluster is an unlikely event, since it has been existing as a free and independent mon-atom, and is not likely to be close to a metallic cluster. So being a mon-atom is, statistically, a hard habit to kick.

It is more likely that a metal atom will get knocked off its cluster, and become a mon-atom (ORME or otherwise), than the chance that a metallic mon-atom will get attached *to* the cluster. That is because mon-atoms are free, and subject to dispersive forces, so concentrations of them tend not to develop. So there is a distinct statistical bias, moving metallics into the ORME state. The rates of these opposite processes (in Nature) only equalize when there are substantially more ORMEs than metal in the region around a state system interface at which such processes are active.

Within an ORME population, where all the members are monatomic (including 0% paired metal atoms), there are also important non-linearities. For internal geophysical processes, the process rates that drive population distributions are **typically** such that the rate of Cooper pair formation and the rate of Cooper pair loss, do not balance until a population average above 50% pairing is reached. There is at least one identifiable factor at work accounting for this. It is that pairings, once formed, are not only stable (referring only to dumbbell and bars elements), but tend to increase in stability as a result of energy subsequently building up and increasing, flowing through the closed valence circuits. So it typically takes less collision energy to form a pair, than to break it apart, once it has existed for a while. In breaking apart, the acquired energy of stability is sometimes all released, or may be absorbed to varying degrees by other circuits that may be present.

A second factor is that, once an atom has been knocked into a high spin state and some pairs have been formed, these tend to be (obviously enough) on opposite ends, so the bar or dumbbell is more elongated in aspect than it was before. This increases the likelihood that a subsequent collision will knock it into a spin on the same spin plane again. This is particularly

true for dumbbells, which tend to have their population peak at a higher number of pairs than do bars elements.

In Nature, populations of most geothermally formed ORMEs elements peak at 8-10 pairs for members of the dumbbell group, and 4-5 pairs for elements in the bars family. Common ORME configurations for many bars elements, is for the ORME to have two pairs on each end, ie roughly opposite each other as head and tail, and 6 free valence bars sticking out in between, around the "waist"; or else three pairs on one end, two on the other, and 4 free valence bars in between.

These pairing level distributions are sufficient to give those elements "ghost gold" properties, making them somewhat detectable, though not recoverable as metals by ordinary methods, since they won't coalesce into the metal lattices, characteristic of their respective elements. That is about the level (coming straight from natural materials) that Hudson experienced, when his dore' button would shatter like glass when hit with a hammer. As solids, their abnormal valence structures don't produce a regular symmetrical lattice, and that is why they seem like ceramics. Low order partials are essentially glassy or amorphous in their micro-structure.

So 100% ORMEs (within natural monatomic populations) are not as rare as metal mon-atoms, but still by no means dominant.

As I have mentioned, there are ways of precisely separating each pairing species from one another, and also similarly paired species of related elements. David Hudson and company are presently unable to do this. Actually, hardly anyone working with ORMEs at this point even understands or admits partial pairing exists as a feature of atomic structure, and so experimenters don't even know there is anything ****to**** separate.

The potential hazards of partial ORMEs should not be under-estimated. Low order partials are inherently dangerous when taken indiscriminately, by those oblivious to the very real effects of their remaining metallic factors. Gold, even when metallic, is non-toxic, so less caution is necessary. However, when someone is suffering from a life-threatening condition, then it is sometimes necessary to take extraordinary measures, and to weigh relative risks.

6. (6) SUPERCONDUCTIVITY AND ORMES [back](#) While I have previously referred to ORMEs as exhibiting type II super-conductivity, this is only superficially correct, and ORMEs (in my opinion) deserve to be given a separate, distinct classification, such as type III.

In conventional type II Superconductors (SCs), for temperatures within their superconducting regime, as the external field is increased, the Meissner-generating currents flowing through the SC (necessary to expel the external flux) reach a level at which superconductivity in the sample can no longer be sustained, and superconductivity is destroyed. I have described this event as a wholesale rupturing of bonds between valence funnels of adjacent atoms in the lattice. Removing the external field (and hence the current) results in reforming the Cooper pair bonds, and restoration of superconductivity (assuming the sample temperature hasn't changed).

However, in the case of ORMEs, superconductivity (transmittance across the sample body) occurs through Meissner field linkages between individual ORMEs atoms - an entirely different mechanism. This is true whether the ORMEs are a continuous body, like an ORMEs glass (small ORMEs-glass particles are merely small examples of continuous bodies), or an aqueous dispersion. (Of course, observing superconductivity in aqueous phase dispersions is not even a possibility for other SC materials, because they are cryogenic.)

At H_{c2} (H_{c2} is the energy field level at which superconductivity ceases) for ORMEs, the external H_{c2} field only succeeds in establishing itself ***between*** the ORMEs atoms,

suppressing, or causing their individual atomic-level Meissner fields to withdraw or be pushed back sufficiently so that the Meissner-mediated energy transfer between atoms is blocked, interrupting macro-current flow in the sample. To restate this, the macro Meissner-generating currents, which act to expel an external flux from an ORMES body, flow *between* ORMES, not *within* individual ORMES. The function or role of the ORME atom is to establish the macro-current *path* (via a continuous chain of Meissner fields), not to produce the expelling current itself. It is, in fact, a DOUBLE-NESTED system of superconductors: the macro body superconducts via Meissner field linkages, and within that the individual ORMES each superconduct on an atomic level through their individual closed Cooper pair circuits.

An individual ORME atom in such a population is not much affected by the presence of an H_{c2} field, even despite its stopping of macro-current flow in the sample body. The ORME atoms' own Meissner fields are only moderately changed at best; they only must scrunch up a bit, so as to make room for the external H_{c2} field, which is now passing between them. The currents in the ORMES atomic circuits thus do not change very appreciably, since most of the external flux passes around (between) them.

This leads one to the conclusion that H_{c2} for ORMES is not a constant (though unlike type IIs, it does not depend on temperature). Instead, for each element, it depends (primarily) upon the energy contained in the Meissner fields of the individual ORMES (I am also assuming the ORMES as being arranged at their preferred atomic spacings). The strength of these individual atomic fields ultimately determines how much external field will be required to force them apart, and supplant them from their inter-atomic connections. If the Meissner fields are pumped up (or conversely, drained down) and the H_{c2} measurement experiment is tried again, a different value for H_{c2} will be found.

H_{c2} for ORMES is still defined as the external field which destroys super-conductivity in the macro-body of the sample. On the surface it seems the same as the definition for type II SCs, despite entirely different mechanisms at work, and despite ORMES' temperature independence. Furthermore, like type II SCs, removing the external field restores superconductivity in ORMES bodies. (The ORMES themselves never lost their atomic-level ORMES circuits; if they had, removing the external field would not result in a resumption of superconductivity, which it does). Because of these similarities, it can be seen how ORMES could easily be mistaken as a type II material, and how casual reference to it as such is even reasonably accurate for some purposes ...

So these are laws at work behind the observed phenomena by which ORMES particles may sometimes:

- flee the approach of a magnet or a hand
- first act inertly when in an intense magnetic field
- then resume their flightiness when it is withdrawn; and so on.

Hopefully, the superficiality of the similarities between type II and ORMES behavior are now clear. The following few statements summarize these conclusions about ORMES.

- 1 ORMES superconductivity is essentially temperature independent.
- 2 Macro currents are transmitted by inter-atomic Meissner field linkages through an ORMES body.
- 3 H_{c2} is the level at which macro-currents in the ORMES body cease.
- 4 The H_{c2} level for an ORMES body is a function of Meissner field strengths of the individual ORMES.
- 5 The atomic-level Meissner fields of individual ORMES are distinct and largely independent of the macro Meissner field of the ORMES body, and only moderately increase at H_{c2} .
- 6 Cooper pairs of the ORMES themselves are typically unaffected by H_{c2} field levels,

unless the ORMEs Cooper pair circuits are already carrying flux at or near their critical capacity.

ORMEs are somewhat hydrophilic, and tend also to be hygroscopic. How much so is in a proportion to how strongly their fields are charged. In "solution", the Meissner field of each ORME is capable of controlling a significant number of water molecules; how many, again depends on the ORME's charge. In such a solution of ORMEs, the separation between ORMEs, specifically, the distance at which energy normalization can occur between them is extended by the presence of the water molecules, for a given strength of Meissner field. It is similar to how inserting a dielectric material increases the capacitance between two plates. The plates may be much more widely separated when the intervening space is filled with a material of high dielectric constant, than without it, for the same capacitance. Likewise, the ORMEs can be further apart in water, and still communicate energy between one another.

The effect of the Meissner fields in such a situation is to artificially increase the apparent viscosity of the water. It produces a "stiffness" or pseudo-viscosity which is a function of the concentration of ORMEs, and of the field strength. The field strengths naturally normalize between ORMEs under such conditions, so all individuals within the population come to an equivalence in energy level (assuming mixed species), or to an identical energy level between identical species. This is the explanation behind the slimy, gelatinous consistency of aqueous ORMEs dispersions.

The "viscosity" of the suspension may be altered drastically and dramatically, as the Meissner fields are perturbed. For example, placing a sample drop in a magnetic field, well in excess of H_{c2} , will suppress the extent or range of the individual Meissner fields and (unless other field types, as I alluded to elsewhere, are operative) the viscosity may be observed to diminish, particularly if any macro-currents were present.

The possibility of achieving high-temperature superconductivity with $T_c > 300K$ was predicted over 30 years ago by W.A. Little [Phys Rev A 1964, vol. 134, p 1416]. You may also be interested in reading D.M. Eagle's paper in Physica C [1994, vol. 225 p 222-234] on observed room temperature superconductivity, and other discussions of same delivered at Brookhaven National Laboratory in April 1994. This is related to the earlier work by LN Grigorov, et al.

7. THOUGHT EXPERIMENT ON SUPERCONDUCTIVITY Lets suppose that a small pile of lumpy and granulated ORMEs powder and particles are the sample of an experiment. Let us also presume that these ORMEs are only weakly or minimally charged, so that H_{c2} for them is considerably below the field strength of a test magnet, at a distance of a few centimeters. What will happen then ... when the magnet is brought near?

In their initial states, the weakly charged ORME atoms are fixed in position and orientation, within the solid particle they are a part of. For individual ORME atoms, sufficiently dispersed in a matrix of other ORMEs or non-ferrous material, with the ORMEs being sufficiently low in atomic-level Meissner field strength so as to not be in Meissner linkage with one another, they may be seen to be capable of something superficially approximating ferromagnetic behavior. Due to the atomic-level circuits each ORME atom possesses, some flux will always be present (whenever there are closed valence circuits), and this will result in a small, net magnetic moment; this is what I am referring to when I assume they are only weakly charged. Another way of saying it is that this means a tiny magnetic field is associated with each ORMEs atom, because of their individual circuit flows.

The nature of the magnetic field of a single ORME atom (although I am using "atom", I am doing so loosely, so keep in mind that these are diatoms) depends on which element it is (specifically, what its elemental atomic shape or form is), how many closed valence circuits it

has, and (for partial ORMES) where these circuits are located on it, among the possible pairing locations. The resulting field shapes are not simple dipoles, but are complex multi-polarizations, depending on the permutations of these several factors. Nevertheless, in many cases, there will be some net dipolar or quasi-dipole component, which will be particularly apparent and dominant in near-field aspect. The net effect of these tiny ORMES dipoles generally will produce a gross dipole of some degree in a particular sample particle, though it is also possible that the sample particle will also display a more complex field.

The degree to which the net dipoles of the individual ORMES in a given particle are aligned to form a gross dipole obviously depends on the history of the particle, such as what aligning conditions were present at the time the ORMES became solidified and fixed into their matrix, and what other relevant influences were present at the time. They usually tend to align, individually relative to their neighbor's influences, and as a group relative to external influences.

When an ORMES body is placed within an external magnetic field, only three things may happen, as regards the flux of this field. It may pass around the body, it may pass through the body, or it may terminate on a pole or poles associated with the body; each magnetic flux line originates from, and eventually terminates on, a pole, and these are the only possibilities (which I shall discuss) that will satisfy this, as far as the ORMES body is concerned.

As the test magnet approaches, under a watchful eye, two main things happen.

The first thing is, some of the magnet's flux engages, and terminates on, the pseudo-dipoles of the ORMES atoms (those that are aligned attractively with the external field), whose fields then become continuations or a nexus for it. While the individual ORMES do not move about or flip, fixed as they are within the solid, the particle as a whole may move to orient itself, under action of the magnetic forces, so that it is aligned most attractively with this external field, according to its gross dipole or the net disposition of the ORMES within it, and that will be its natural inclination, in seeking a condition of lowest potential energy. This results **initially** in an apparent ferromagnetic attraction of the gross ORMES particle to the magnet. They start to line up in whiskers as if they were iron filings, mapping the local field of the test magnet.

The second thing that happens is, some of the magnet's flux penetrates **between** the individual ORMES atoms (I don't mean between the particles of powder, but actually between the atoms in each particle), separating the atoms and cutting off any inter-atomic Meissner linkages which might have been present. (Remember, I have assumed that the ORMES were weakly charged, so H_{c2} is below the magnet's strength, allowing this penetration to occur.)

In penetrating the particle, the field attempts to pass through where the ORMES atoms themselves are also, and in doing so it tries to scrunch their tiny atomic fields up, close to the atoms. This latter mentioned action, by induction, causes a current in the superconducting ORMES valence circuits, opposing the magnet's encroaching field, and forcing it back, away from the atom. The superconducting valence circuits act as a perfect inductive mirror.

If it were only one atom that we were talking about here, that is where things would stop, but that is not the case. There is a community of atoms, and the atom has other atom neighbors, on every side of it, and above and below, in a 3-dimensional arrangement. Consequently, while the first atom is excluding the field from near itself, it has several neighbors which are each doing the same thing. As these neighbor atoms exclude the field, they are at the same time pushing the unwanted flux toward the first atom again, just as the first atom is pushing it towards them. It is a case of everybody saying "Not in my neighborhood!", all at the same time.

This is the source, nature, and mechanism of the field amplification, within the ORMEs population, that would be needed in order for the ORMEs to behave as has been observed, in levitating in the earth's half gauss field, note also that type II SCs do this.

The squeezing of the external field between the ORME atoms greatly increases the local strength (flux density) of the external field, as seen from the viewpoint of each individual ORME atom. The actual degree of flux compression (field strength amplification) that takes place in this inter-atomic flux pinch depends in part on the separation between the ORME atoms, but is very, very great, and may certainly exceed the factor of 10^6 that is required [presumably to overcome the gravitational field]. The evidence that it does is plainly obvious to anyone, in that ORMEs *do* levitate.

As the field compression progresses, each ORME atom continues, in this runaway induction, to increase the strength of the Meissner-generating currents which flow in its superconducting closed valence circuits until a state of equilibrium is reached, as the flux compression function runs into an asymptotic wall. From the standpoint of each ORME atom, it looks as though a wall of flux surrounding it is increasing almost without limit (a near approximation to the hypothetical ... Irresistible Force), when all they are really doing is pushing against each other with the external flux trapped in between, like a veneer. The magnet's flux that succeeded in penetrating the particle is now trapped in the inter-atomic spaces it intruded into. The particle is (for the moment) something like a bead strung on the lines of external flux.

Just about the same time as this is going on, something else happens. As the external magnet's flux becomes more and more confined, and the Meissner fields of the individual ORMEs atoms become increasingly powerful, they are also forming increasingly efficient field linkages between themselves. The atoms begin to become capable of (more and more efficiently) transferring energy between one another, which is another way of saying that the H_{c2} value for the system is increasing.

As this inter-atomic coupling begins to develop, macro "currents" begin to flow (only in small localized regions of the particle at first). These localized effects begin expelling the external flux from their area. As the atoms come into communication with each other, and external flux continues to be expelled, this sort of cascades and the whole population transitions into a superconducting state as a contiguous, extended particle body.

In other words, the first thing they do when linkages form is to promptly develop Meissner-field-generating currents in the macro-particle, to exclude the external magnet's flux that has, just before, become trapped between the ORME atoms. As the flux is expelled, the growing diamagnetic field opposes that of the test magnet's field, and the particle's attraction changes to being repelled from it.

The rate of development of diamagnetism (or repulsive force) starts slow, as inter-atomic linkages begin to form for the most closely spaced atoms, increases as more linkages form and larger currents are possible, and then finally levels off, as nearly all interatomic linkages which are possible within a given particle have formed, even for the more widely spaced ORMEs atomic neighbors. At that point the diamagnetic field stops growing further.

It takes a certain amount of time for the ORME atoms, working cooperatively, to move the embedded external field's lines from being inside to being out of the particle. Its like when you see somebody being passed across the room, above the heads of the audience at a rock concert, by everyone's arms gradually handing them from person to person. But eventually the lines get expelled from the particle. This migration time (which depends on several factors) causes a delay before significant repulsion begins to become apparent.

In finally flying away from the magnet, the particle then obeys kinematic laws ($a=f/m$) as the

acceleration (integrating into velocity) is determined by the instantaneous repulsive force, as a function of instantaneous field strengths (etc.).

So the particles first appear to ferromagnetically attract, but before long change their minds and fly away in diamagnetic repulsion. Please allow me to point out, that all these behavioral phenomena are consequences (as put forth in the inductive reasoning of the foregoing explanation) only of the fact that ORMEs have closed valence circuits. Showing in a compelling way that the same observed behaviors are required by theoretical atomic concepts or models, which do not admit to or include closed Cooper pair valence circuits, may be very difficult indeed, and certainly not as compelling, I would say.

8. (7) OTHER MEISSNER RELATED PROPERTIES [back](#) Zero point coupling is also related to ORMEs' ability to interact with water, producing the pseudo-viscosity discussed previously. The electromagnetic zero point in these phenomena is an important mechanism by which energy moves to and from the vacuum energy field, and out of or into our own space-time.

There exist many zero point doublets, within reach of our experience (ie, associated with matter and energy phenomena we are capable of manipulating). They are points where physical and transcendental resonances occur simultaneously, ie, highly non-linear natural interactions between matter, energy, and space-time. Each of these zero points represents a point of communication, through which energy may enter (or exit) our 3 dimensional world from higher dimensions, the ultimate source of the vacuum energy.

The important thing to understand, is, that it is not necessary for a particular wave's frequency to "match" the mid-frequency of a particular zero point doublet, to experience this sort of transition. It is only necessary that coupling exist between energy (or matter, or both) in our dimensions (for example) and a zero point resonator. The presence of the appropriate coupling circumstances with a zero point notch or doublet results in the entrainment or discharge of energy, by means of coupling transfer. It is the coupling to the doublet resonator (e.g. a water molecule, ORME, etc.) which is important. The frequency "shift" of the coupled energy occurs as a natural consequence of this, due to topological properties associated with the zero points themselves. The zero points are not merely the specific frequencies they happen to fall on, within the electromagnetic spectrum, but are the result of the trans-dimensional resonator, which just happens to have whatever frequency it has; tuning the 'right' frequency without or apart from a zero point resonator does not constitute a zero point.

Meissner effects may also affect taste. Strongly charged ORMEs might be masked in their metallic properties by the Meissner fields. The manna of the Israelites was described as tasting like "honey" (Exodus 16:31), or "fresh oil" (Num 11:8). In making it into cakes, the Hebrews, of course, had to add water to it. Both honey and oil are viscous substances, and these terms may also give us an indication of the amount of charge present for those allusions in the account, with perceived taste varying according to charge.

ORMEs, having individual atomic-level Meissner fields, differ in behavior from that of type II superconductors, when an ORMEs suspension is exposed to an external magnetic field. The external magnetic field direction (earth's field), which penetrates a water suspension of ORMEs is nearly horizontal. The reaction of the ORMEs population is to exclude the magnetic field. But because the ORMEs population in suspension is both mobile and discontinuous, some interesting things occur. The ORMEs nullify and confine the penetrating field by forming current vortices around each of the quantal lines of flux. This forms a vortex field, that is, a field made up of a great number of tiny vortices, dispersed uniformly through the solution when viewed in a direction parallel to the earth's field lines.

Despite being discrete entities, these vortices mathematically sum into a single peripheral vortex encircling the flux. Because of the mobility of the ORMES in suspension, the ORMES themselves gradually flow towards an arrangement of lower energy, which shall eventually exclude all the field lines from the container. As they do this, these small vortices gradually coalesce into larger and larger vortices, containing and enveloping the penetrating flux in larger and larger clumps, till it is all lassoed into only one large bundle. This might look like a solar prominence. A large ring current flowing through the arch (and continued in a circuit through the material in the container), sufficient to exclude the flux from it. If you broke the arch (physically), the ring current would be interrupted and cease, and the arch would fall and collapse (no current left to sustain it, once broken), and the flux trapped under it would escape out through the point of the breach as the two limbs of the arch fell.

END

Strength In Wisdom

For the Record Interview

Interview with person who took monoatomic Rh and Ir

The following transcript is from a recorded conversation between myself and one of the key players in the area of monatomic elements. The interview took place on July 27, 1996. Prior to our recorded conversation, it was agreed that the interviewee was to remain as anonymous as possible therefore I cannot provide any specific information (e.g. name, contact information, position, location etc.). For the record, I personally attest that this person is indeed both qualified and capable of speaking on the following subjects. This material is not copyrighted and may be reproduced and distributed freely, but only in its entirety.

Strength In Wisdom

B:

I understand that you have ingested monatomics in the past, what product did you take?

U:

A combination of Iridium and Rhodium.

B:

When?

- U:
About two years ago.
- B:
How much?
- U:
I started with 250 mg a day and by the time I ended a 42 day fast was up to about 2500 mg. I probably took 2500 mg for a total of five or six days though, and I only did 250 mg three or four days.
- B:
Then went up to 1000 mg?
- U:
I'm impatient, I moved up very, very quickly. I started taking the material eight days into the fast. I did a lot of cleansing both before and during (slightly into the fast). During the fast, we monitored every single detail we could including: blood sugar, blood pressure, weight, temperature ... things we could have a handle on.
- B:
So, you were fasting for seven days. On the eighth day, you started taking 250 mg. Are you still taking it?
- U:
I still take material but I don't take it in that volume. Now you have to understand, these materials are present in carrots. They're present in all kinds of food.
- B:
Yeah, grape juice, bilberry, slippery elm bark ... are you currently taking any isolated material?
- U:
Occasionally. But not at 2500 mg doses.
- B:
Why did you take it in the first place?
- U:
There were a lot of things we wanted to find out about and there was no other way to do it. I'll tell you right now: we didn't know if I would die or not.
- B:
But you were willing.
- U:
I have no fear about anything like that. I really do not have any fear.
- B:
What effect(s) can you attribute to your ingestion of this material?
- U:
It wasn't very long after I started that the sound started occurring. *The sound outside of sound.* That really is key to what can happen. Most people will hear that and think their ears are ringing. If you're careful, you'll realize that it's not in your ears. As you proceed with this, you'll realize that it actually moves outside your head and just above the crown of your head. It's more than a sound, it becomes an emanation ... it really does. And that's when you have something that you can work with. By far, the majority of people who've ever had to deal with this didn't have a clue. If they'd studied some Taoist alchemy ... if they had studied anything

and applied it to themselves rather than keeping everything outside themselves ... they'd have known that the dialogue they build with that phenomena gives them the keys to the next steps. There really is a trade-off that starts to occur. That's what made my experience so uniquely different from everyone else's.

B:

So you were prepared for it.

U:

I knew what to do. But there are very, very few people who do. This takes place internally. It's an active process. You're not going to sit there and have this zip through you and all of the sudden these wonderful things are there. It can't be that way. That's not the way the circuit is set up in your system. Your chakras and realizations are not built that way. Nothing is built that way. And to expect something outside of that is absolute foolishness.

B:

Is that all you experienced?

U:

No, but that's a two day conversation in itself. If you want to get to the rest of your questions ... it got to the point where I was standing in an electric flame. I could tell you a million things that occurred that were all way different from anything normal, but they occurred progressively as a result of me dealing with them.

B:

Were you psychic prior to ingesting it?

U:

Yeah, probably. But what happened afterwards is truly unique. It changed everything in a way that hasn't made my life very nice. If you were to talk with some people, they would say it's made me impossible to be around ... there's no way in the world to lie. It's not fun. Most people are not going to like it. It's not light-hearted. It's not easy. Unless you have someone that you can deal with that has a point of reference for it, you're going to be very alone. These materials and how they've been dealt with historically have a rich, beautiful tradition built around them. Only now do I understand why.

B:

Any adverse effects?

U:

Well, my life is not *Father Knows Best*.

B:

Are there any lasting manifestations?

U:

Absolutely yes.

B:

Care to elaborate?

U:

Well, psychic, physical, emotional.

B:

Did you get more psychic?

U:

Yes, oh god yes. Little things, all the time. It got to the point where you just didn't want to deal with it anymore. Like answering someone way before they ask you ... it scares people. When this happens thirty times or more, they realize that it's not just a coincidence.

B:

Do you think that your experience is typical of what others might experience?

U:

No, I don't think my experience is typical of what anyone else experienced who did any meaningful amount of it. I'll tell you right now, I'm the only one who did what I did. All of these sages that came out of the woodwork: after about 15 or 20 days, couldn't even make their fast. They started cutting corners and then said: 'Well it didn't happen to me'.

B:

Had you had previous kundalini experiences?

U:

Yes, I had on several occasions in my life.

B:

Were you on the verge of having these experiences on your own volition?

U:

Well, its like this: I knew what to expect. When it started to occur, it didn't frighten me. It's like waking up in an Astral dream, the first few times you frighten yourself into waking. After that you finally say 'Wait a minute, don't do a thing, I think we have finally hit the trigger', and then you float out. That's something I had worked at for years, and years, and years. I got so far into it, I finally quit doing it. It got to where I could do it any time I wanted to within five minutes or so.

B:

Out of body experiences?

U:

Yeah, I could put myself right there.

B:

Well you've been on a spiritual path since what? Age eight?

U:

My whole life has been tied to it. Being down-to-earth, incredibly well-grounded, reasonable, logical and not giving up common sense is very important in this work. We're going to have to call it a prerequisite.

B:

What do you think the mechanism is at play here? Is this a chemical reaction?

U:

Well everything in your body, we could sooner or later get around to saying, is chemical but the junctions in your nervous system are all made up of these materials. You've probably seen the paper *Superconductive Tunneling and Biological Systems*. When you start overloading everything with this material, your real potential begins to be accessed. Now that's one thing that happens. The real trick to it deals with the monatomic gold in a perfectly charged way. We could go on forever on this ...

B:

We have a lot of ground to cover too. Has anyone taken monatomic gold?

U:

Yes.

B:

Who? You?

U:

Yes.

B:

How long did you take it?

U:

Very little. Not for very long.

B:

Why did you stop?

U:

There's very little of it to go around.

B:

You would have taken more?

U:

Of course I would have. I'll tell you right now. Monatomic gold can only be typified as *The*, not *a*, *The Precursor*.

B:

So you'd take as much as you could get?

U:

It's not a matter of how much, it's a matter of having it prepared properly. It takes very little when it's prepared properly.

B:

What do you think a full course of the gold for humans is?

U:

A full course would be one application.

B:

Like 500 mg?

U:

No, I doubt it's anywhere close to that. 500 mg, when you throw it out on a table, isn't very much. But we're not talking volume here. Volume has nothing to do with it. It's also what you bring to the table that will have a great deal to do with the banquet you enjoy.

B:

What role do you play now in all of this?

U:

Well, my role is my own. It's not really connected to anything. But, it is important to me, personally, to put together enough coherent information to allow people a little easier access to this body of knowledge than they have had historically with alchemical information. I used to be so angry about how the alchemical texts were written because so much of it is misleading. Some of it is bad. Some of it's misinformation.

B:

On purpose.

U:

There was a real good reason for that, but now it's time for that reason to be over. There's a lot of danger that goes with this and the danger is not something that takes place with occult practices. What I'm talking about is, for example: say you were able to convert lead into gold. The monetary systems around the world are built around this system and all the powers that be are pretty happy about the arrangement. If you have a wild card show up, it becomes dangerous for a lot of reasons.

B:

We are all aware of the philosophical claims made for these materials: do you think the claims can be borne out?

U:

Absolutely.

B:

Will humans truly effect biolocation?

U:

Absolutely.

B:

You just think about where you want to go and you're there?

U:

Absolutely.

B:

And you just take along your physical body?

U:

Absolutely. Absolutely.

B:

It's not a purified physical body? Sort of a less dense version of what we have?

U:

Listen, it is physical. It is so physical you can eat, have sex, bleed.

B:

Is this the voice of experience?

U:

No. But I'm telling you it's absolutely physical. It's not allegorical. It's not symbolic. Those are nothing more than Tinkerbell and Disney.

B:

Could we beam our selves to an inhospitable environment and die?

U:

No you can't.

B:

It's physical.

- U:
It's physical here where it's supposed to be this way.
- B:
So you become what ever is appropriate for the place you beam to?
- U:
Yeah, of course. You'd hate to show up at the ball in your painting clothes. But from the point of logic you are using right now, you can only apply that logic to how that might be. When it occurs, you've already moved yourself to that place. The change takes place at the same time.
- B:
But you still have memories of this third dimensional reality and your previous life. You are still 'you'?
- U:
It's not just a memory. Which do you think would be the most amazing miracle: if I brought someone back to life, or changed water to wine? The truth is: they're both the same. If you can do one, the other's just as possible.
- B:
It's just moving atoms around.
- U:
It's even simpler than that. You're turning, literally turning, ninety degrees. There's another reality right around the corner. And when I say right, I mean ninety degrees. It's physically right around the corner.
- B:
Isn't it just a change of perspective or perception?
- U:
No, there's a whole new deal there that is beautiful and so totally *other* that it's nearly impossible to imagine from here. But you can go both ways. Once you are capable of one, you can do the other. Like I said, water into wine is no different that turning lead into gold.
- B:
Or turning the sky green.
- U:
That's right, once you learn to cheat this way you can cheat any way you want.
- B:
How about the technological claims? Like the fuel cell application?
- U:
Oh yeah, that's totally wrapped up. That's fact, fact, fact.
- B:
How about the medical claims?
- U:
Absolutely. All the technological and biological possibilities are incredibly real possibilities.
- B:
Do you see any other uses that haven't been mentioned?
- U:

Thousands of them. Anything that concerns itself with catalytics ...

B:

Are we finally going to get off the grid? Will we be free?

U:

Well we may be, and there will be many, many, many hundreds and thousands that will. But if you're talking about the five billion or six billion: most of those are going to perish. But that's OK, it took this many to get us where we are now.

B:

So we're talking the 144,000?

U:

Well, don't hold me to a figure like that. There's just a logistical problem that goes along with this. You can't just hand it out in a crowd, there's a lot more that goes into this. But let me tell you, the capabilities of discernment that go along with what I'm talking about are great.

B:

So when you're talking about *this stuff* do you mean Rhodium, Iridium, Gold? Do you mean all of it?

U:

No.

B:

You only mean gold.

U:

Yeah, that's what I'm talking about.

B:

So what about the rest of the stuff? Is it only gold that will do the philosophical ...

U:

No, the other will do a lot of things but I'm talking about something beyond most people's ability to even imagine.

B:

You said before that you thought many people might die from the ingestion of these materials.

U:

The emotional shock of it would be enough to kill most people. Look, even if you took someone 3/4 brain-dead and started pumping it down them, in a certain amount of time you would probably start to effect them on an emotional level.

B:

Do they need to believe it's going to work?

U:

No, this doesn't require any belief. These are physical materials, they're not allegorical.

B:

What can you do to prepare yourself in order *not* to die or suffer any adverse effects?

U:

You cannot sit in a cloistered room and prepare yourself for any type of disturbance. Your ability to deal with being disturbed, having your boat rocked, putting up with the storm, being tough, being gentle, being loving, being harsh, being all of those things ...

- B:
Being real?
- U:
Yes, those are the things that prepare you for this. Thinking everything is love, beautiful and New Age horse shit, isn't going to do it. You're going to get slam-dunked.
- B:
What types of adverse effects do you anticipate?
- U:
It could be as simple as someone with cancer, who doesn't believe that something so weird could possibly have an effect on them, taking it at the request of a loved one and finding themselves miraculously cured. Now that could be a huge emotional shock to someone. If you really think about it for a minute, people's belief systems act as *t h e* best prisons in the world.
- B:
I was speaking more in terms of physiology.
- U:
No, no I don't think so. Your whole body depends on this just to be able to act like you're alive.
- B:
Do you think everyone should ingest monatomics? Who should or should not and why?
- U:
Everyone does ingest monatomics. They're present in common everyday foods. I don't think life would go on at all without them.
- B:
In concentrated forms.
- U:
In concentrated forms, I don't think it's for everyone. I don't think many people, in terms of percentages of the population are going to be compelled to deal with this in the way someone who has spent years working on a spiritual path would be.
- B:
So, only people who are working on a path ...
- U:
Well, people who have been drawn to it from some very deep part of their soul.
- B:
With the many other materials purported to be monatomic on the market today and the prospect of even more in the future, how will we be able to tell what is real and what is not?
- U:
99.9% of all materials out there are total bullshit. Most people are being sold a bunch of hype. There are some materials out there with monatomics in them, but generally you can get just as much from a couple of carrots. You know it makes me feel very bad that this is being capitalized on by such unscrupulous people.
- B:
So how can we tell what is real?
- U:

There are people selling materials that have mercury and lead in them. They know it, and they're not including it in the analysis they are putting forth. Through the analyses we've done, I can assure you that any *White Gold* products (and there are many out there), contain no monatomic gold. Some are even contaminated with lead, a fact they choose not to include in their public analysis. Now, is that spiritual?

B:

Yeah, this brings out the best and the worst in people. So there's no way for people to tell if the material is safe, or real, or what?

U:

The only way to tell if a material is monatomic is through testing. If they are willing to pay for it. It can be done, but it's going to cost \$3500 to \$4000 to do a certified analysis. There's only one lab that I know of that can do it.

B:

Can't you put it in aqua regia and if it doesn't dissolve ... ?

U:

Yes, that would be a quick and dirty test. But all you would know is that it's monatomic. You wouldn't know what it was: Osmium, Ruthenium ... etc. But you could also have something left there that's not monatomic, especially if the source wasn't from a pure metal standard.

B:

For what purpose, in your opinion, should the monatomic gold be used?

U:

Most people who are going to take it on purpose are doing so for the sake of expanded consciousness. The gold has unique physical properties. There are technological applications but those have never been applied. This is the edge of the razor here, can you feel it?

B:

So what would you do with a pile of monatomic Ruthenium?

U:

Well, quite often those elements are very desirable in electronics.

B:

And Palladium?

U:

Well, those could be applied to a lot of catalytic applications.

B:

Osmium?

U:

Electronics.

B:

Iridium?

U:

Any type of surface-wear applications. Plating. Where very durable corrosive resistance necessities are present. Any catalytic application. The same is true for Rhodium. Of course the biological applications for those two are the best known at this point.

B:

You said previously: 'You don't have to be a chemist to make this stuff', what did you mean by

that?

U:

Any housewife in Dallas could make this material right now in her own kitchen, if she did her homework.

B:

But it still involves chemicals ... correct?

U:

Yes, it does. Lots of study, lots of time, lots of diligent observation.

B:

Lots of holding your mouth right, saying the right things over it, putting your hands on it?

U:

No, this is a physical thing. The observation is important. There's a lot of things that can happen. You have to build an affinity for it.

B:

Does it take twenty years?

U:

No, you could do it in a few years probably. But it's one of those things that if you screw-up part of the way through it, you have to go back and start over. You can't imagine how disheartening that is. It really is an exercise in patience, perseverance and observation. My position on this is if someone is jazzed about it, they should bring it into their life. What they bring is a rich tradition that is full of guidance that will come to them when their heart is in the right place.

B:

Some people have children, bills to pay, and Oprah to watch. They don't have time to do it.

U:

And that's a choice for them. This isn't something on the level where people just casually say they have an extra \$100,000 or \$500,000 ... there's no amount of money that can be put on what we're talking about.

B:

There are a lot of people who think you could.

U:

Those are the same people who should study the Mayan cargo system which still exists today. That is: you don't send money to put on the parade when it's your turn to carry the flag. You carry the flag because that's the only thing that counts for carrying the flag. When people think for a second that they can spend \$500 and get a seat next to the Buddha they're wrong.

B:

What do you think the ramifications of the distribution, and subsequent ingestion, of monatomics will be on: human evolution, society, technology, finance, consciousness, the planet, the known/unknown universe?

U:

Everything we know will be changed ... on all levels.

B:

Could you be more explicit? What do you think will happen to society?

U:

When people start taking it and the materials start being applied, not just in terms of oral ingestion, the world will never be the same again.

B:

What is your vision of that?

U:

Everything from biology to power production, political structures (decentralization of government), everything has the potential to be radically changed. So many of the things I just mentioned are based on structures and paradigms which are centered around control of resources ...

B:

And perceptions.

U:

And perceptions, and all of those can very easily be displaced by the applications of these materials.

B:

What do you think will be the effects on the known and unknown universe?

U:

They're going to trade places. The expansion will be so great that 'expansion' is what is.

B:

The process is what it's all about.

U:

Yeah, it's not a matter of getting to a point where we've made this achievement ... we've become aware because of the speed of this achievement that it's an expansive, never-ending process.

B:

Some of us, who are 'present,' are aware of this.

U:

Some are. It's balance through movement. Like movement you have in the European Tarot deck's two of discs. It's like the movement of a bicycle, the movement forward is what allows for the balance. The stability is there through the movement. Where most people cling to an idea of stability with no movement.

B:

Many people I come into contact with, think of it as a destination.

U:

There is a lot of belief that this is 'the end.'

B:

Do you see only a few people taking it at first?

U:

Only a few.

B:

Do you foresee a time when it will be available in vending machines?

U:

No, I don't. If you study how our planet was peopled, creating the beings we are now, you'll

find that political structures have always made this an elitist phenomenon.

B:
What kind of time frame are we looking at?

U:
This is total conjecture on my part, but ... a lot of this will remain in research for the next five years or so. After that, there may be efforts for it to trickle out in some way. There are other people, I personally know, who are so far down the road in applications and technologies (not necessarily in terms of production capabilities) ... but you throw money at that one and the problem goes away very quickly. There are many people working on this same project, as there have been in the past. There are several ways of making this material.

B:
You've said that there are different forms of monatomic gold? Do you mean different spin states?

U:
It's not a matter of a higher spin state. It's a matter of once it is in the high-spin state, it being properly charged. That involves very subtle operations. Very subtle. We're talking beauty again, that's how subtle.

B:
Beauty in the true sense of the word.

U:
There *is* a difference in these materials. They are all individual, unique materials. They have their own qualities. That's why they have different names. To lump them all together under one heading as monatomic gold is just not accurate. These are different materials.

B:
You are making a distinction between isolated monatomics and more highly charged monatomics?

U:
Yes, yes I am. This aspect has not been addressed as far as I know.

B:
So what is the correct term to use in referring to these higher-charged materials?

U:
I call it the *Philosopher's Stone*. You could call it the *Manna*. There's a lot of things you could call it.

B:
But there's as much difference as night and day ... ingesting this over the other.

U:
That's an understatement.

B:
Are you aware of other materials which carry the same attributes and implications?

U:
No, this is it ... the real thing ... the only thing.

B:
This meaning higher-charged monatomics?

U:

You have to understand: the isolated materials are *The Precursors*. They were very difficult precursors to ever come up with. Very difficult. But it's the battery that you have to charge. It has to be charged to be able to turn over the governors that are present in our genetic code. Those were programmed in.

B:

What practical advice do you have for those of us who know about these materials, and the potential they hold, but are living outside of ground-zero?

U:

Do your own homework. Don't let anyone impose *their* truth on you. Let them present the various facts and make your own decision. Keep searching for answers ... your own answers. That seems a little patronizing in general, but realize that it takes work ... physical work. This is not something you read into existence. You read enough to know that you have to do something physical. If all you do is read the book *In Pursuit of Gold* there's enough information there (if you apply yourself) to go very, very far. For someone who's doing nothing, that is a huge step forward.

B:

Do you have any specific advice for members of the *Science of the Spirit Foundation (SOSF)*?

U:

This material is real, but if someone expects to eat it and suddenly fly through the chimney: they're in for a real surprise. But the material, in terms of medical performance, is real. It will perform as expected and then some.

B:

And the technological part? Some people are expecting to make some money on their investment.

U:

They very well may. But there are so many other uses for this material ...

B:

If you had it all to do over again, what would you do differently?

U:

Absolutely nothing.

B:

No regrets on any of it?

U:

None at all.

--==--

END

[To Top of Document](#)

Acknowledgements

[TPH Twilight Archive](#)

HTML validation by:

[W3C online validation service for HTML 4.0](#)

spell-checked, minor editing, reset in HTML 4.0 in July 2000
Strength In Wisdom added August 17 2000