

## WHAT'S AN EVO?

by

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**Intent of This Writing:** An EVO (exotic vacuum object) is just another name in a long line of names for a new electronic effect. In the past, it has been called an EV (Electromagnetic Vortex or Electrum Validum for strong electron), charge cluster (this could be just a piece of dirt with no net charge) and CCT for charge cluster technology. Whatever it is called, the effect can best be characterized by how it is measured using instruments capable of interpenetration in terms of somewhat similar phenomenon. The nearest class of instruments with useful capabilities is those used for measuring the properties of electrons and ions.

Using these, we will assemble a series of observations characterizing the observable entity properties that are most pertinent to new energy and propulsion uses. Use of contemporary buzzwords like zero point energy, space energy or ether and other areas of mystery will be avoided here as they might falsely bias judgment of the true events being measured. It will not even be assumed that the entity being interrogated is an assembly of electrons, even though electrons were put in during formation and an equivalent number of electrons were output at the time of dishevelment.

This writing is thus an attempt to analyze the actions and basic characteristics of the entity while being as free as possible of preconceived notions about its structure. This aim is heavily biased toward the entities use instead of its name or theory of operation.

**They Are Forceful:** A witness plate is a target for the entity that can be taken out of the apparatus and examined for interaction with the entity. Although one would naively assume all effects derived from receiving the impact of the strike would be thermal, experience has shown that this is strictly not so. Many of the effects are an entirely different form of non-thermal material dishevelment due to the peculiar properties of the bombarding entity. One of the effects that can still be trusted is the measurement of peak force against the witness plate as certain measurement methods can be arranged that do not directly involve the entity. By using these methods, it can be ascertained with certainty that the peak force due to encountering an entity being measured has easily surpassed the tensile strength limits of the witness plate.

When calculations are done to see what the energy balance is to produce the impact mark, using input measured electron number and velocity, it is clear that the effects seen are not tractable due to inertia. Ballistic laws are strictly not followed and are off by a factor of thousands. As an example, an entity traveling at 0.1c, composed of about  $10^{12}$  electrons, accelerates a slug of mass 50 material, measuring 20 micrometers in diameter by 100 micrometers long, to a mean velocity of about  $10^7$  centimeters per second. Indications are that a very high force is available due to motion of the entity and that this force is directly indicated by this measurement technique.

As a second point of verification of this enormous force, along with another peculiar property of material entrainment, is the way a simple electrical impedance mismatch can reverse the direction of travel for the entity along with the entire load of material it is carrying. This happens when the entity of a particular energy or type creates a hole in a target boring material, such as SiC, backed with a metal foil that is, in turn, spaced from another anode material. This mismatch produces an intense, point flash of light, having a diameter of about 5 micrometers, resulting from the reversal of the entity with its load, followed by high velocity ejection of the load material in the opposite direction originally traveled by the ensemble.

Not only is the force of the entity high in the forward or original direction it was launched but also it almost instantly reverses direction and applies the force in the opposite direction—all under electrical control afforded by the local structure instead of external dictates. The magnitude of the control voltage has not been directly measured, due to the very short time involved, but is not expected to be above the 100-volt range, as assessed from the lack of thin film dielectric breakdown when the film is less than 1,000 atoms thick. The data and photos discussed in the above two paragraphs can be seen in the paper entitled, “Charge Clusters in Action” by Ken Shoulders. This paper is available for download from the web at: <http://svn.net/krcsfs/>.

This entity is thus more forceful than any condensed material can withstand and it is controlled by a minute amount of input power.

**They Hang Together:** In order to array adequate quantities of this specialized electronic substance for the purpose of propelling large quantities of material and for generation of high powered electrical and light sources, it is necessary for the entities to form into these large structures without the adverse effects of space charge repulsion. They do this admirably as can be seen from photos of witness plates that caught them in flight and recorded their binding arrangement just before capture. Examples of this can be seen in the paper entitled, “Permittivity Transitions”, by Ken Shoulders, also available for download from the web at the above address.

This demonstration of cohesiveness must be taken to the next step of reducing the velocity of the ensemble and collecting more material while also allowing a cooling action to occur, which removes rogue modes that do not control as desired. This is a purification step and the Paul type of electrodynamic trap is ideally suited to the purpose. Once the accumulation and cooling is complete, the material is transferred to the operational site. In the case of a single axis, bidirectional thruster or propulsion unit, this device can be as simple as a sealed pair of parallel plates of dielectric material having a spacing of a single unit of charged material between them, about 0.001 inches, with conductive electrodes applied on the outside to present the control field. Electrical and optical generators are essentially the same structure with specialized electrodes and filling to enhance the motional aspect of the contained charge. In many ways, these devices closely parallel piezoelectric devices but having exceptionally high coupling coefficients and efficiency in that they are over-unity efficiency, are self-driven and function without input power from our usual sources.

**Why Would They Act This Way:** There are several unique properties to the portion of space we occupy on this planet and nearby neighborhood. One of the most obvious curiosities is the way we have reached a charge neutral or charge balanced condition, with the exception of an occasional thunderstorm, fractoemission cracked rock, and rubbing hair on amber. The driving force behind this is that electrons really don't want to be alone. At the first opportunity available, they join up with something. In the case of elements, they readily join the nucleus, with its positive charge invitation, until a balance is obtained.

Oddly enough, and this is not common knowledge, they also join each other as long as the spacing is as close as one atomic diameter or so. That is what happens when an abrupt, high field process, like a gas discharge or field emission, forcibly ejects electrons from a conductor at sufficiently high current density. Having once achieved this uncommon union for our portion of space, the electrons stick together until the marriage is violated by a sufficient quantity of conductor where they are forced to return to their more common state as an atom. But while in this little package, whatever it is called, very delightful things happen that can be used to our advantage.

At this point all we have is a controllable entity capable of extraordinary thrust and using trivial control power. Some of the requirements for this condition seem to be connected to its large size, being larger than a single electron, and the apparent closeness of the substructure, assuming there are internal parts. Curiously, the critical number density of the substructure matches Avogadro's number. To a first approximation, the parts within are spaced the same as if they were in an atomic lattice.

**What's Its Name:** Although there are many more measured properties having to do with the ability to mask charge and shift mass, the above statements used alone are enough to allow proceeding to the next stage of development without undue risk of the work being stranded for lack of data. Do we mystify the source of this effect with an elaborate name or just give it a bland name and use it?

There is now a wondrously long list of things we do not have to know or do to proceed with a process for passively overcoming the force of gravity—as the entity we are talking about is thrusting against some unseen medium that appears stationary and this medium is not the material it is boring through. Call it what you will, the medium is there and we can now engage it in a very forceful way. No more beating on the air or throwing material overboard to fly! Who cares what its name is? Use it.