The Gradient 'E' (electric) field and how it can be used to resist gravity.

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In <4a1ug7$e18@hera.hrz.th-zwickau.de> m.opitz@banyan.th-zwickau.de
writes:
>
>
> Does anyone know facts on a so called biefeld (or bielfeld?)-brown-effect?
> Are there any books, articles etc.?
> I believe it is about gravity...
> I would enjoy answers.
> Thanks

Below is an article I wrote that attempts to explain the Biefield-Brown
effect. Hope it helps.....Paul Stowe
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Electro-Dynamics and its Application to Propulsion

The term "Electro-Dynamics" applies to all systems that utilize electrical charge or potential to create useful work. This term therefore includes standard electrical circuits and due to the nature of electromagnetism will include magnetic properties. However, what sets electro-dynamics systems apart is they ignore the magnetic effects in the design of the system. A simple example of an electro-dynamic device is a flashlight.

As applied to propulsion, electro-dynamic systems are predominantly ion generators and Grad E electron/ion/dielectric accelerators. Most ion devices will by the very nature of their design, be of the later type.

It was the physicist T.T. Brown who probably held the most patents pertaining to these Grad E propulsive concepts. The most interesting result of Brown's work is his controversial claim that such Grad E systems will continue to produce thrust in a hard vacuum, albeit the thrust is significantly reduced (by many orders of magnitude).

He put the minimum required voltage for such vacuum systems at 250KV with practical operational requirements at greater than 500KV. In the presence of a dielectric medium (such as air, oil, ..etc) this voltage could be reduced to the 100KV range to produce practical measurable thrust.

As far as I can tell from studying his design notes, T.T. Brown clearly identified the Grad E effect as being related to gravitation. Specifically, he saw that a directionalized Grad E produces an acceleration field, and that this field, when superimposed on a gravitational acceleration field, could either enhance or reduce the observed affect on the masses contained therein.

He never claimed that the electric gradient WAS gravitation only that it could directly modify observed gravitational effects. Thus the term Electro-Gravitics was coined. Much has already been written on this topic and the focus of this article IS NOT to duplicate these discussions.

The focus of this article is to provide the reader a means of easily visualizing what this electrical gradient is and how to produce this effect.

To this end, let's start by visualizing an electrical gradient. In this we will use a fluid flow analog. This approach is not at all uncommon and an example found on page 210 (Figure 7-18) of "Physics for Scientist and Engineers", Lobkowicz and Melissinos, Volume 2 is a classic representation. Quoting this caption:

> "More fluid analogy: If the same amount of fluid flows through different areas "S", the velocity is indirectly proportional to the area size. We conclude that the electric field magnitude is proportional to the DENSITY OF THE FLUX LINES."

Taking this exact example further, consider a typical convergent nozzle (Rocket Nozzle), in this discussion flow will be from the small end to the large end. In this case, the fluid velocity is greater at the inlet that at the outlet, resulting in the deceleration from inlet to outlet. This decelerative action in the fluid results in an observed thrust on the nozzle.

The direction of thrust in the above case is towards the small (convergent) end of the nozzle (typical rocket effect). Mathematically, we can state this as:

$$a = (vf^2 - vi^2)/2L$$

Where a is acceleration, vi inlet velocity, vf outlet velocity, and L is the length of the of the nozzle.

However, if one reverses the flow, the resulting acceleration on the nozzle does not reverse, but remains in the same direction. This is a key aspect of a flow field gradient, which is: "The resulting reactive acceleration (thrust) is always directed towards the convergent (smaller area) end of a nozzle.

Applying this directly to electric lines of force, we can clearly visualize the "Biefield/Brown Effect".

If we take a capacitance device with unequal surface areas, and apply a voltage across it, we have a direct analog to the nozzle discussed above (see figure 1 below)

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Figure 1

If the analogy holds, there should be a reactive force on the capacitor in the direction of the smaller plate due strictly to the convergence of the electrical lines of force.

Moreover, along with the above, any dielectric within the electrical gradient will polarize, and Feynman's explanation (found in Volume 2, 10-8) which states that because each atom is of the order of 10^-8 meters, the induced dipole moments experience slightly different magnitudes of electrical intensity and thus experiences a slight attraction towards the shaping (small end) electrode. This will result in a flow of the dielectric medium (if a fluid) or directional stress (if a solid) directed towards the shaping electrode.

Along with this, if the plates are uninsulated, the aforemention dielectric flow can also carry ions/electrons along with it. Thus if the shaping electrode is positively charged, electron flow is enhanced creating and ion wind effect.

What is important to understand is, "if a dielectric is accelerated within the gradient, the reactive force will be opposite to the accelerating motion of the dielectic fluid, AND THEREFORE THE INITIATING GRADIENT". Stated another way, if fluid is moved, the thrust vector will reverse, away from the shaping electrode.

Clearly, it can be seen that in a vacuum, there will still be a gradient produced in the induced electrical field but will be in a reverse direction to that induced by dielectric flow. This will create a reactive force on the assembly just as the flow nozzle experiences a reactive thrust in response to rhe velocity gradient within. Without understanding these competing aspects, work in on Biefield/Brown devices can be both confusing and unproductive.

If you find this information useful and helpful please let me know.

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