Quantum Flux Radiometer Experiment

To recap: At first glance it appears impossible to utilize the vast energy of the Zero-Point Energy Field. The photons of the Quantum Flux exert many tons of light-pressure on us all the time; however, since this pressure is equal in all directions, all of these forces ***seem*** to add up to zero ***net*** force; fortunately, things are not always as they *seem! ! !*

In principle, the quantum-pressure of the photons of the Zero-Point Energy Field (ZPE) can impart up to twice as much ***momentum*** to one side of a solitary *macroscopic* object as to its opposite side---despite the fact that the quantum pressure is the *same* on *both* sides! This is possible because the material on one side of an isolated object can be engineered so that it primarily *reflects* the photons of the Quantum Flux while the material on its other side primarily *absorbs* them. In other words, one side experiences *elastic* collisions with these photons while its opposite side experiences *inelastic* collisions with these photons.   This results in a net Quantum Light-Pressure Force that exerts up to twice as much pressure on one side of a single *isolated* **macroscopic** object than on its opposite side!

My name is Wm. Scott Smith, I am a self-taught, unfunded, independent researcher who is soliciting comments and advice on my experimental design. I am especially seeking guidance on selecting appropriate materials. Please take a ***quick peek*** at my project just in case you *might* think of a helpful comment or could forward this appeal to someone who *might!*   I am mostly looking for technical help and lab time; nonetheless, (if you *insist!)* I *will* be facing what for me are insurmountable expenses in the form of patent and incorporation costs.) But again, the *best* thing you can do is to pass this out to everyone you know! (Get even with all the people that e-mail you endless jokes and anecdotes!)

Incredibly, many researchers *still* **insist** that the Casimir Force is nothing more than Van der Waals Attraction Forces between the two surfaces; this is despite the fact that the now-experimentally-verified values were *originally* **predicted** from calculating a Lorentz-Invariant Wavelength Distribution for the Quantum Flux!!! Therefore, I am proposing a new method of directly measuring the Energy Density of the Quantum Flux *without* using the two parallel surfaces of conventional Casimir-Effect Experiments.

Instead, a Radiometer will be constructed that measures the energy distribution of the Quantum Flux. One side of a plate will *reflect* the (5-10nm?) wavelengths of the Quantum Flux (probably at a grazing angles of incidence between 0 and 15-degrees.) The opposite side will absorb these wavelengths with minimal reflection or transmission.   As with Nichols Radiometer, a perfect reflection would impart twice as much momentum as perfect absorption--not that anything about this experiment is going to be perfect!

Therefore, as with Nichols Radiometer, the Quantum Flux Radiometer will experience a net force that is directed toward the more reflective side. Getting a significant Qualitative result will establish the reality of Quantum Flux forces that are independent of the Van der Waals Distraction Forces that are inherent in Casimir Force Experiments!

I need help selecting appropriate materials. For example, I have located good reflection data for Ni, Au, U and Th; but even there, I am uncertain how far the EUV penetrates into these materials before reflecting, absorbing or transmitting through the material. I need to select a material that does not transmit the EUV or (hopefully!) does not allow those wavelengths of the Quantum Flux to arise inside the material, especially in the absorptive half of the Radiometer.

(I may find that 5-15 nm range is too ambitious for a first experiment; perhaps I should be attempting to measure larger wavelengths which, while being *much* less energetic, may be far less problematic in terms of easily available materials; therefore, I also welcome reflection and absorption values for wavelengths as large as 60 nm.)

Experimentally speaking, here is where I am at:

My first attempt to produce a Prototype is to *somehow* form an alloy (using a flower-pot forge and a household vacuum to blow air through it!!!) Canadian Nickels are 99% pure Ni, it will be mixed with varying molar concentrations of aluminum (pop cans,) in much the same way as Raney Nickel type catalyst-alloys are formed. However, rather than grinding the allow into powder, I intend to mold a solid, flat, thin plate and soak **one** side in 5-Molar Sodium Hydroxide.

This will leach out the aluminum on that one side, leaving a nano-porous spongy surface on that one side. Hopefully, most EUV and Soft X-ray emr gets lost in the maze and is ultimately absorbed into the material. The spongy, absorptive side will be given a protective coating whereas the opposite side will be ground and polished until it is optically flat and then coated to prevent oxidation (still trying to figure out that one, too!)

Classical Raney Nickel ***Alloy*** (the most common form still used!) is fifty/fifty Al/Ni by weight. Usually, the alloy is ground into a fine powder. After this powder is treated with Sodium Hydroxide, most of the Aluminum is leached away; the remaining Raney Nickel forms a dull gray powder. I think it is gray (instead of being black) because the pores are so very small that they reflect *visible* light as though it were a smooth surface. After all, the pores are the spaces that have been vacated by very tiny groups of aluminum atoms, so they are usually characterized as being between a few angstrom on up, with few being larger than perhaps 20 nm.

These pores are likely to work simply as a good absorptive surface for the less-than 20 nm wavelengths that are being targeted! I think that Raney Cavities might *tend* to be too thin-walled to form *effective* cavities. I suspect that it may require a lower aluminum content in the pre-leach alloy so that smaller holes with thicker walls will be more common than larger holes, and the average wall thicknesses will be greater. In any case I want to eventually experiment with many different alloys. For Both Z-PEC and LPD I am leaning heavily toward a fifty/fifty *molar* ratio of Ni & Al.

The *simplest* potential approach is this: I am toying with the idea of using sulfuric acid from an old wheel-chair battery to try leaching the 25% copper out of the *surface few* layers of a US Nickel, just a few atoms thick!--I don't even know if the copper will leach faster than the Ni, but it is probably worth a try!!! People modify US currency for jewelry all the time, but I am reluctant to actually destroy a US coin beyond treating its surface!!! I don't need to hand them a sword to use against me!!!

Here is where I need help:

I live in an apartment complex and have a small garage and am more than a little concerned about being evicted.---But then, I can probably get away with ***almost*** anything just once!!!

(Maybe??? Maybe not?) So **if you could help me get my metal alloys melted--that would help a great deal!!!**

Papers on EUV lenses and mirrors indicate that heavier elements reflect EUV at larger angles of incidence, something such as fifty percent between five and 12 nm wavelength for Thorium, at angles of incidence as large as fifteen degrees but fifty percent reflection only occurs at shallower angles of five degrees or less for elements such as Ni & Al. I need help getting samples of various metals, such as Thorium would be very helpful!!!

I either can't find good EUV absorption data or else I am not recognizing it. (A lot of the Papers I read are probably a hard-read for anyone---and I am mostly just self-taught in Math and Physics. **Maybe you could help with technical interpretation of papers**)

Anyone out there have mass-spectrometer???)

In short, I live on a small disability pension, in an apartment building ---that is almost no facilities.

I have trouble having the simplest chemical supplies delivered to a US residentially-zoned address.

So to sum things up: I am deeply committed to seeing this thing through; nonetheless, I am reminded of the following popular truism.

> "We the willing, led by the unknowing, are doing the impossible for the ungrateful: We have been doing *so* much with *so* little, for *so* long, we are now *fully* qualified to do *anything* with *nothing!"*

Scott

Wm. Scott Smith
840 W Cora, Apt B201
Spokane, WA 99205
scott712@hotmail.com
USA+509 315 9602
(GMT – 8 hours)