

## SUMMARY

I came to this forum {Dally, Shark & Ruslan workbench} only to share two very important findings. These two questions have appeared time and again in excess energy discussions as far back as the subject itself.

1. Where does the excess energy come from?

2. How does this excess energy couple into a system like the Kapanadze or Ruslan scheme?

And I have detailed a viable postulation that answers both these questions with accompanying theory and support papers, etc..

That's it - my simple mission so to speak!

Of course, along the way, I have provided some other directly related, valuable, information as well. (review my posts)

**On the 11th of November 2021 I posted (Reply #2374) the following:**

Notable is the Katcher pulse burst timing with respect to the Grenade Coil (GC) signal. The concept is different from the electron bunching found in a TWT but, I believe, the mechanism (Velocity Modulation) is similar.

In simple terms:

- a signal propagates through the GC, signal wavefront speed is set by the signal frequency (phase),
- but must be slowed down by the Slow Wave Structure (SWS) of the GC helical coil,
- normally the GC signal wavefront would propagate at near the speed of light ( $C$  or  $3 \times 10^8$  m/s),
- the GC signal wavefront must be slowed to match the speed of the Electron pulse burst created by the Katcher,
- Electron pulse burst speed is set by the Katcher voltage [recall  $e = mc^2$ ] where  $e$ =energy,  $m$ =electron mass,
- and  $c$ =speed of light, but in this case the velocity is  $v^2$  set by the Katcher high voltage, the square part is bonus,
- now, when the signal wavefront and the electron speed nearly match, energy is transferred to the signal,

- the "free energy" is realized by the  $v^2$  term ( $e = mv^2$ ), high voltage sets the  $v$  term which is squared,
- energy transfer mechanism is clearly provided and proven in the Traveling Wave Tube analysis and operation.

Essentially there are three (3) variables we control and one (1) consideration;

- Slow Wave Structure (SWS), our grenade coil, including pitch and length (transaction time) ;
- Signal Frequency on the Grenade Coil, which sets the signal wavefront speed along with the SWS;
- Electron propagation speed or velocity, determined by the Voltage set by the Katcher or TT;
- Physical placement of the components need to match a viable layout for the interactions to occur.

**Notable references/proofs to 1. and 2. above include:**

- "The Ultimate Speed - An Exploration with High Energy Electrons," an MIT video

<https://www.youtube.com/watch?v=B0BOpiMQXQA>

- "Q&A The theory of the origin of SE or where it came from" - a Stalker video

[https://www.youtube.com/watch?v=syf5\\_fLPzrw&list=PLRYhzUMB2BkLXLVD0UIhc1TU-ZTq1WvPT&index=92](https://www.youtube.com/watch?v=syf5_fLPzrw&list=PLRYhzUMB2BkLXLVD0UIhc1TU-ZTq1WvPT&index=92)

- Numerous Traveling Wave Tube - Velocity Modulation papers, patents, references and so forth.

- Simplified functional schematics

<https://www.overunityresearch.com/index.php?topic=4154.msg96060#msg96060>

So, in conclusion I will declare the **mission is accomplished**.

Since there appears to be very few of us still involved in this endeavour, we need to double the effort, perfect these systems and spread the technology.

Take care, stay safe and may luck be with you.

**SL**