Further Outline

METALLMORPHOSIS

Transmuting Metals Efficiently – Using Breakthru Frequency and Temperature Catalysis

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Sept 23, 2013

Our Team

Paul Harris

Paul is an active researcher studying fundamental electromagnetics, power transmission, high voltage electronics, plasma physics, biomass energy, hydrogen production, alternative fuels, petrochemical refining and reformation, hydrodynamics, fluid mechanics, mycology and biochemistry. Previously Paul was a vibrant member of the internet revolution, acting as a founding member and Chief Technical Officer of iStockphoto. Currently he is independently researching material synthesis and reformation via plasma technologies.

Bill Donavan

Bill is also a researcher in electromagnetics, and has worked in a professional capacity in the Engineering Lab of Gearmaster, a division of Emerson Electric, and Linear Electronics as Field Engineer. He also did work as a Consulting Engineer in prototype development for various companies including Hobbit Manufacturing, responsible for digital sequencing and safety protocols for radio frequency controlled garage door and security systems. He has built many Tesla devices in his own shop in Toccoa, Georgia, and is the author of "Glimpses of Epiphany", a book reviewing various alternative technologies.

Dan Winter

Electrical Engineer- University of Detroit

Systems Analyst with IBM

Biofeedback Engineer

Inventor – Educator

More vitae on Dan: www.goldenmean.info/vitae

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Experimental Protocol – Intro from Bill

The scope of the experiment is to verify the calculations in the math model constructed that use the NMR frequencies, coefficient of expansion, magnetic and electric field dipole moments, and atomic mass of various elements, and superimpose a new resonant structure on top of the original causing it to undergo LENR change with resulting heat from the leftover mass converting to energy, in this case, heat. Therefore, this system can also be used for heat to electric power generation, with the waste product the desired target element. Many elements can only be converted in a plasma state, but there are a few that can be converted at elevated but not unreasonable temperatures, such as:

Iron to chromium

Aluminum to titanium, niobium, silver, tantalum, gold

Lithium to germanium, zirconium

Beryllium to thallium

Magnesium to germanium, zirconium

Sulfur to selenium, indium, tin, antimony, erbium, lutetium

Titanium to osmium

Nickel to cobalt

Copper to chromium

Zinc to molybdenum, tungsten, platinum

Gallium to scandium, germanium, zirconium, cadmium, indium

Arsenic to germanium, zirconium, cadmium

Selenium to antimony, thulium, thallium

Bromine to iodine, cesium, barium

Yttrium to samarium, gadolinium

Zirconium to germanium

Niobium to tantalum

Ruthenium to rhodium

Silver to titanium, gold

Cadmium to germanium, zirconium

Indium to selenium

Tin to selenium, thallium

Antimony to erbium, thulium

Neodymium to praseodymium, cerium

Samarium to tellurium, cerium, praseodymium, neodymoium

Mercury to scandium, selenium, indium, lutetium, thallium

Thallium to lutetium

Lead to yttrium, holmium, dysprosium, terbium

Bismuth to lanthanum

There are others that were vetted out of the list as not being practical, or profitable for the reaction, as no one wants to transmute gold into lead. In a similar manner, many of the precious metals and rare earths can transmute into “cheaper” elements that are far more abundant, and therefore are omitted from this list. As mentioned above, others only can undergo LENR in a plasma state only, at approximately 10,000-20,000 degrees Celsius, and these were also omitted due to the difficulty of regulation and containment.

MetallMorphosis

Team: Dan, Bill, Paul, and Gerry

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physics / technology
capability we would like to bring to project collaboration

1. spreadsheet calculation detail for entire
isotope steps options - showing
trigger heat, specific output energy,
trigger FREQUENCY, and byproduct stability, and by product energy
for EACH step in hundreds of specific isotope paths
for fusion of either nickel, lithium, or carbon

(one of those interactive dynamic equation based spreadsheets
in excel is over 50 pages

sample attached - spreadsheet exerpt not live linked to equations-
more explanation below
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 The completed  chart (only tiny exerpt sent here)
for example
 shows exactly which by products -in what sequence-
are not stable
and radioactive- for example those clearly
causing Rossi's inability to regulate-
and what to do about it.


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*The critical interactive equation based
field in the spreadsheet for
FREQUENCY - PHONON RESONANCE (we have that trigger frequency
for hundreds of the critical isotope steps)
is based on our proprietary equation
which originates with a colleague who has done extensive mathematical analysis
of low energy nuclear exchange- involves inputting
black body frequencies in a complex algorhythm.
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appendix-
spreadsheet exerpt from bill (below)
more explanation
I'm sending you the Nickel Sequence Spreadsheet
(that attachment was 3 spreadsheets
each up to 50 page- only small exerpt here). This one is pretty
self-explanatory, but I thought we needed to cover some familiar ground
first.

As you can see, as the nickel progresses from B17-F17, the power yields
go up. This nonlinearity contributes to the problems that Rossi (others?)
are having for control of their systems. They begin at a low
level of 91 MW/Hr per gram of fuel, and things are hunky dory. Then, as
the nickel progresses up the chain, the yields go up. The same amount of
input power results in a larger output. And yes, this means that the COP
of both the Rossi and Defkalion systems is VARIABLE! It might start out
at 6.0, but it climbs steadily as time progresses. By the time it gets
to nickel 62, it is above a COP of 11.0.

But the regulation problems are worse than that. Let's look at the
analysis on Tier 2, Energies of Nuclear Decay. This is the amount of
energy that is output THAT CANNOT BE REGULATED! These are radioisotopes
that are short-lived and very "hot". Note that the total energy, in cell
B39 is ten times the output of B19. You may attempt to regulate the
output from the fusion of the nickel, but what is output is much higher.
Worst case is that if nickel 62 predominates in the reaction, then the
COP of 11.0 is actually 10% of the output, for a total COP of 110. You
start with 6.0, and it increases to 110. This is what Rossi did in
Bologna, with the unit running in self-sustain mode.

However, there is an additional complication. Let's look at Tier 3:
Phonon Resonant Frequencies, and in particlular, starting with cell D56.
We see that the "ignition" temperature is 313 degrees C. This is the
temp that we need to get the nickel up to before reactions begin to take
place. But as the reactions progress, the ignition temp goes DOWN! You
begin regulating the temp at the point where you think it will be
initiating, only to find that that point is moving downward. It's as if
as you're regulating the temp in your fireplace only to find out that
the flash point of your firewood is dropping down to room temperature.
This represents an additional difficulty for regulation.

Then there is the issue of nickel 59, with a half-life of 76,000 years.
It is an X-ray emitter, and if someone opened up the cartridge, then
radiation monitors would go off all over the room. Will Underwiter Labs
open one up? If they do, it's a deal breaker. It remains to be seen.

Is there a solution? Quite possibly, it fits the theory. It is
to take the nickel up to another temp, 1943 degrees C, and move the path
diagonally across the chart, straight to copper 63. I think this is what
Rossi was attempting to do with his "Hot Cat". It gets rid of the
regulation problems, but now we have the nickel caking, or sintering.
One solution is something which -
involves using a critical proprietary selected material we have researched
in which the nickel can be embedded
like an atomic molecular lattice
that embedding matrix material
would both catalyze the reaction
AND - make the energy release much more

self regulating by eliminating hot spots etc.(scaffolding effect)
I hope that this explanation is satisfactory in outlining the problems with the current system.
from
Bill Donavan
in collaboration with Dan Winter

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PS- this is in addition to synergetic collaboration

on the other projects
we are developing which tobias has told you about
which include (among others)

tuneable hydrolysis
fractalfield.com/hydrogen

and growth technologies for agriculture- based on restored centripetal forces

theimploder.com
fractalfield.com/bloomthedesert

Also- Our tech director for Canada has serious patents to a plasma based waste oil / water remediation. Implosive/ centripetal forces DO self organize- THE path from chaos.

--Note in the image below this represents only 2 element series among hundreds..

	A	B	C
1	Element #1:	Nickel 58	Nickel 59
2	Precise Weight:	57.935342	58.9343467
3	Half-Life:	Stable	76,000 Years
4	Decay Mode:		Electron Capture
5			
6	Element #2:	Hydrogen	Hydrogen
7	Precise Weight:	1.007825032	1.007825032
8			
9	Element #3:	Copper 59	Copper 60
10	Half-Life:	81.5 Seconds	23.7 Minutes
11	Decay Mode:	Electron Capture	Electron Capture
12	Fused Weight:	58.94316703	59.94217173
13	Stable Weight:	58.93949808	59.93736502
14	Discrepency:	0.003668952	0.004806714
15	Ergs:	3.30206E+18	4.32604E+18
16	Watt-Hours/Gr.:	91,723,802.48	120,167,852.71
17	KWH/gr.	91,723.80	120,167.85
18			
19	Total KWH/Gr.:	662,465.54	
20	Average KWH/Gr:	132,493.11	
21			
22		Tier 2: Energies of Nuclear Decay	
23			
24	Element #1:	Copper 59	Nickel 59
25	Precise Weight:	58.93949808	58.9343467
26	Half-Life (Hrs):	0.0226388	6.66E+08
27	Decay Mode:	Electron Capture	Electron Capture
28			
29	Decay Product:	Nickel 59	Cobalt 59
30	Half-Life (Hrs.):	6.66E+08	Stable
31	Decay Mode:	Electron Capture	
32	Precise Weight:	58.9343467	58.93319507
33	Discrepency:	0.00515138	0.00115163
34	Ergs:	4.63624E+18	1.03647E+18
35	Ergs Per Hour:	2.04792E+20	1.56E+09
	Watt-Hours/Gr.:	5,688,662,872.16	0.04
	KWH/gr.	5,688,662.87	0.00
	Total KWH/Gr.:	6,780,628.80	
		Tier 3: Phonon Resonance Frequencie	
	Element #1:	Nickel 58	
	Precise Weight:	57.935342	
	Density in gr/cm3:	8.912	
	Expansion Coefficient:	1.34E-05	
	Avogadro's Constant:	6.02E+23	
	Phonon Resonant Freq.	45,247,354.13 *	
	Element #2:	Copper 63	
	Precise Weight:	62.92959756	
	Density in gr/cm3:	8.96	
	Phonon Resonant Freq.	44,096,116.11 *	
	Resonant Temp. Deg.C:	1943.319977	

* see explanation for how trigger frequencies are calculated