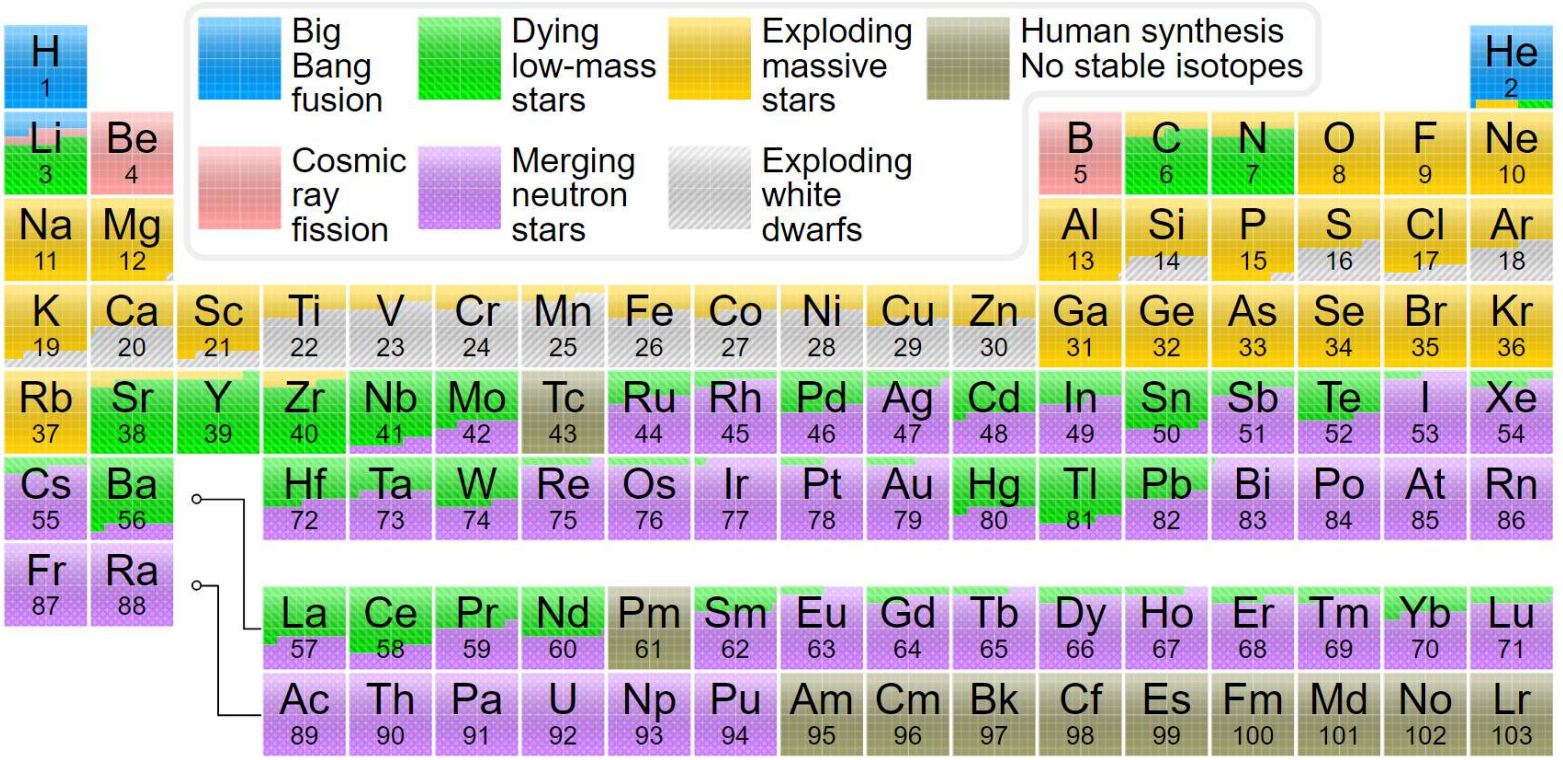
The Structured Atom Model and Transmutations a proposal for fusion processes (on Earth) EU2018 Bath, England

- How were the elements created?

Presentation content

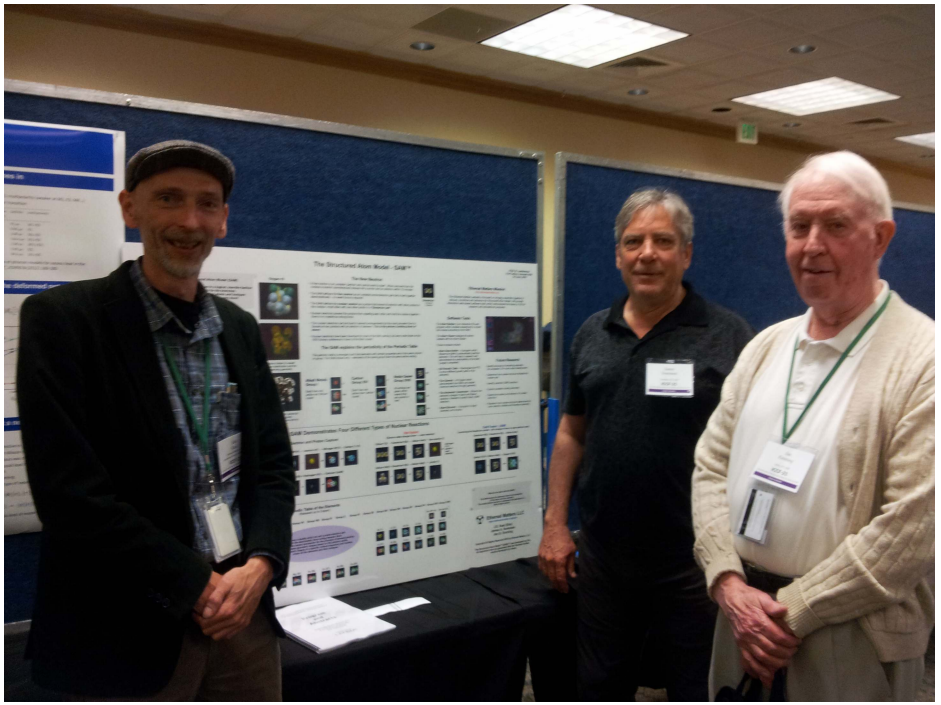
- Intro
- Recent Activities
- SAM recap
- SAM Physics
- SAM and LENR
- ICCF
- LENR in nature
- Hypothesis, conclusion, discussion & Summarizing

Intro


Big Bang fusion
Dying low-mass stars
Exploding massive stars
Human synthesis No stable isotopes
Cosmic ray fission
Merging neutron stars
Exploding white dwarfs
H 1
He 2
Li 3
Be 4
B 5
C 6
N 7
O 8
F 9
Ne 10
Na 11
Mg 12
Al 13
Si 14
P 15
S 16
Cl 17
Ar 18
K 19
Ca 20
Sc 21
Ti 22
V 23
Cr 24
Mn 25
Fe 26
Co 27
Ni 28
Cu 29
Zn 30
Ga 31
Ge 32
As 33
Se 34
Br 35
Kr 36
Rb 37
Sr 38
Y 39
Zr 40
Nb 41
Mo 42
Tc 43
Ru 44
Rh 45
Pd 46
Ag 47
Cd 48
In 49
Sn 50
Sb 51
Te 52
I 53
Xe 54
Cs 55
Ba 56
Hf 72
Ta 73
W 74
Re 75
Os 76
Ir 77
Pt 78
Au 79
Hg 80
Tl 81
Pb 82
Bi 83
Po 84
At 85
Rn 86
Fr 87
Ra 88
La 57
Ce 58
Pr 59
Nd 60
Pm 61
Sm 62
Eu 63
Gd 64
Tb 65
Dy 66
Ho 67
Er 68
Tm 69
Yb 70
Lu 71
Ac 89
Th 90
Pa 91
U 92
Np 93
Pu 94
Am 95
Cm 96
Bk 97
Cf 98
Es 99
Fm 100
Md 101
No 102
Lr 103

Cre

Recent Activities

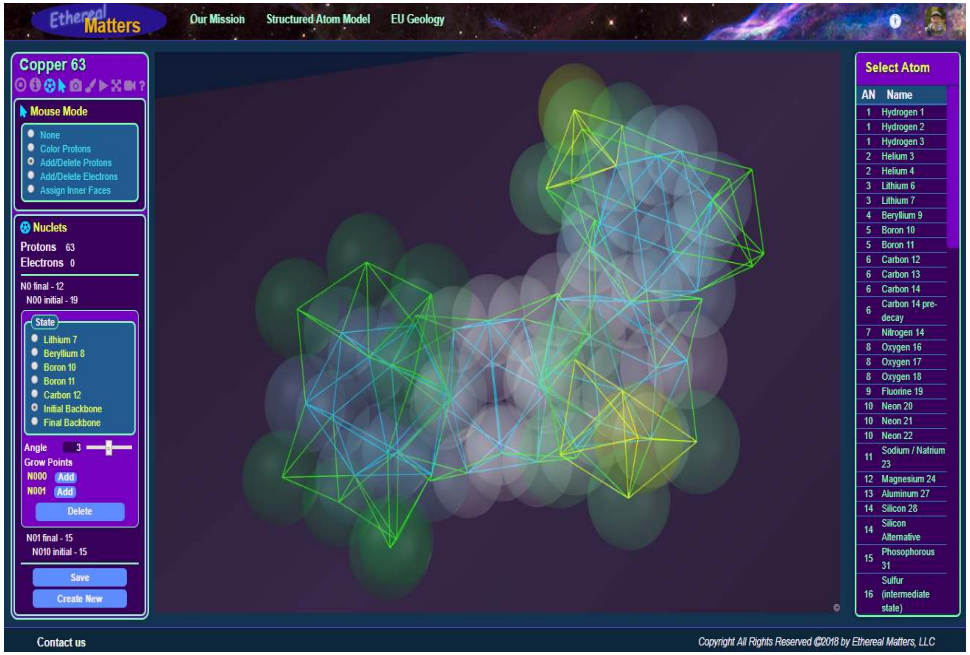


- Presentation at the EU2017 conference
- Website launched
- Attended & presented a poster at the ICCF-21 conference
- Transmutations was the prevailing topic

Recent Activities

- The first 29 elements of the PTE released to the public, rest will follow
- A Atomizer-builder has been created that can be used to (re)create any element or isotope
- This allows the tooling to accurately depict nuclear reaction products

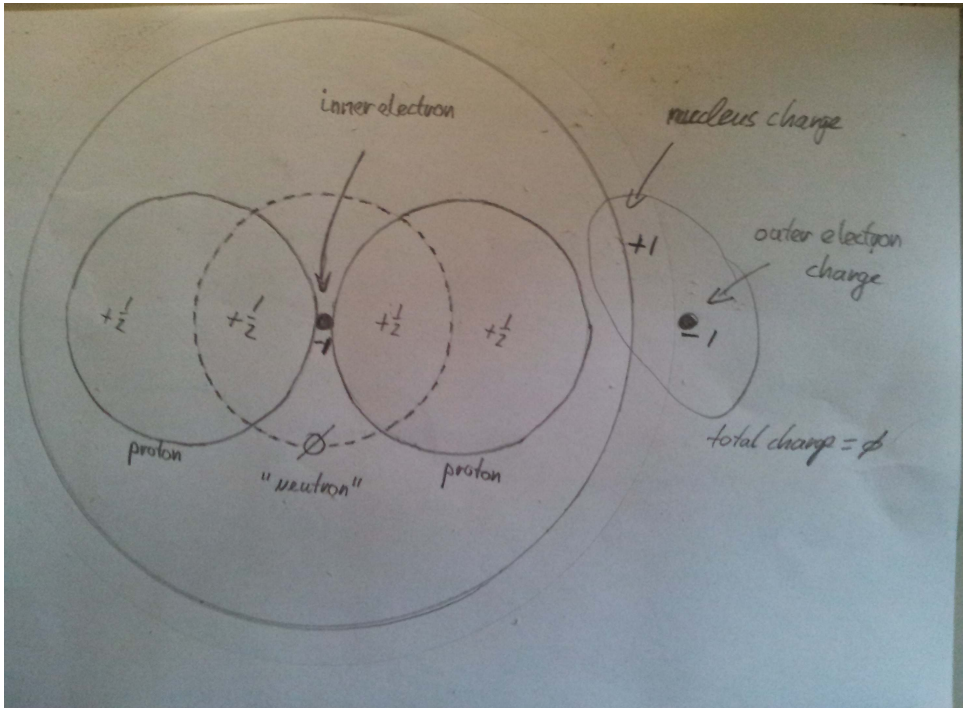
Screenshot Atomizer

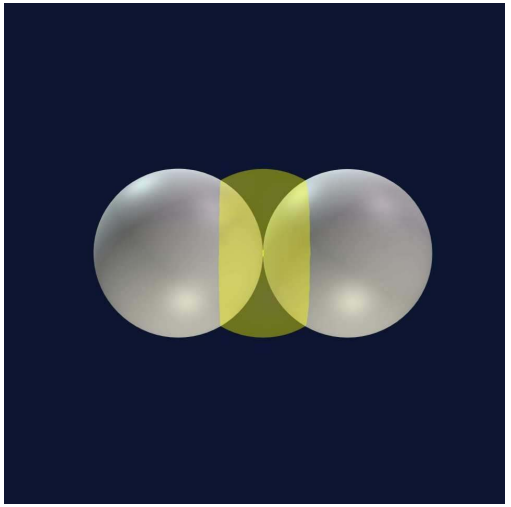


Recent enhancements

- Added “inner electrons” placement (learning more about the nature and behavior of the nucleus (increased understanding nuclear reactions)
- added “extra neutrons” feature (ability to create unstable isotopes)
- conventional proton-neutron color coding (understanding (in)stability isotopes)
- made it much faster, added a lot of background info and explanation and Lots of general improvements
- Atomizer-Viewer (29 elements) works on a phone

SAM recap – the components of the atom

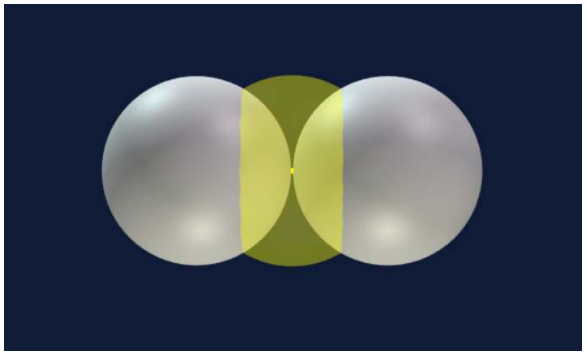


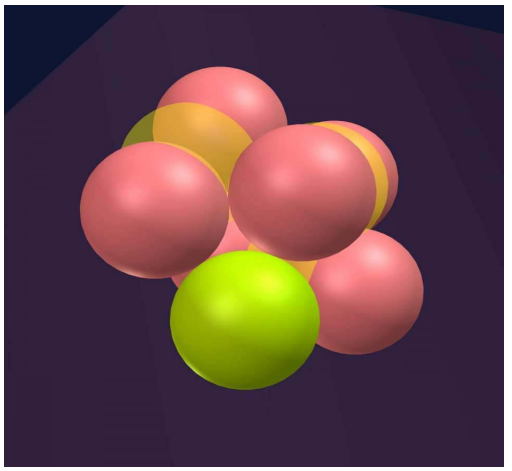


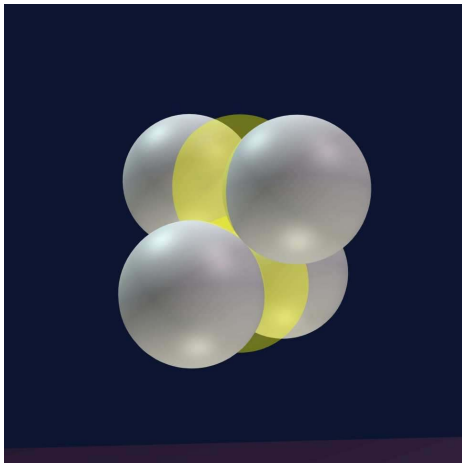
- animation
- New neutron /D2 from the nucleus to the atom to a molecule.
  This is a most important “building block” it is the Deuterium (D) or 2H and most likely has to do with why LENR reactions are possible.
- The atom does not contain any kind of energy except what has been taken from its environment. (Tesla)

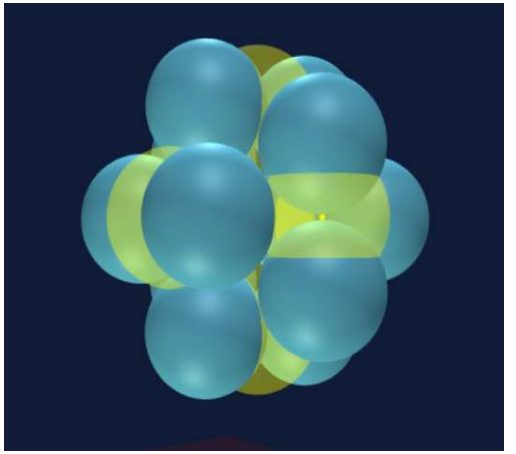
Slide x – Show the nuclets

Nuclets are specific groupings of geometrically shaped protons-electrons or rather made up of the Deuterium nuclets as pointed out in the new neutron.



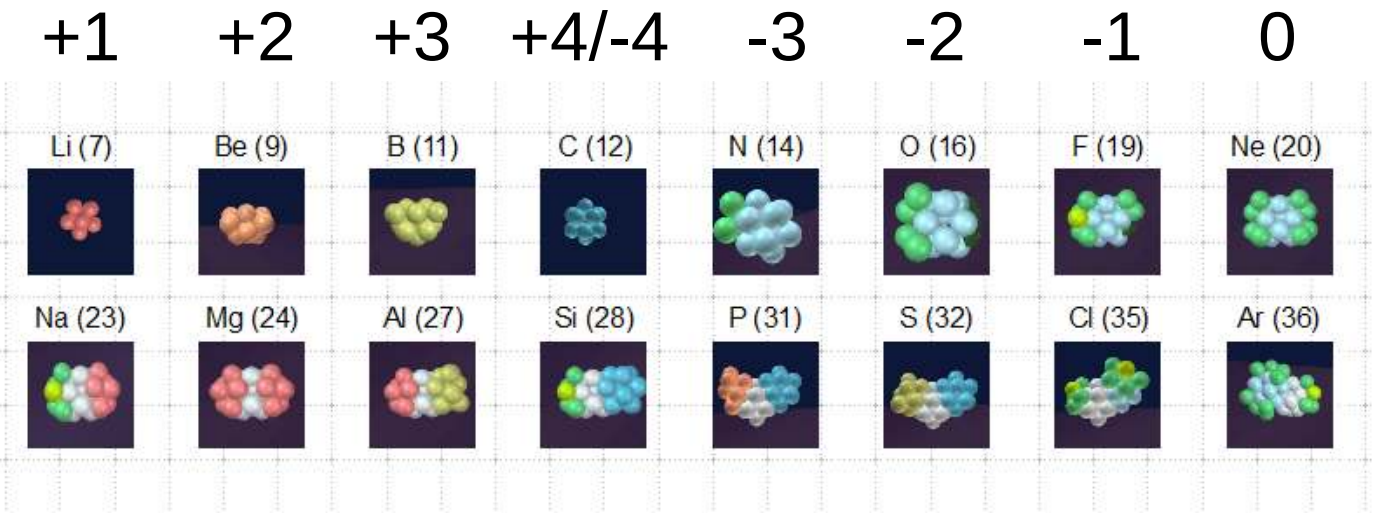




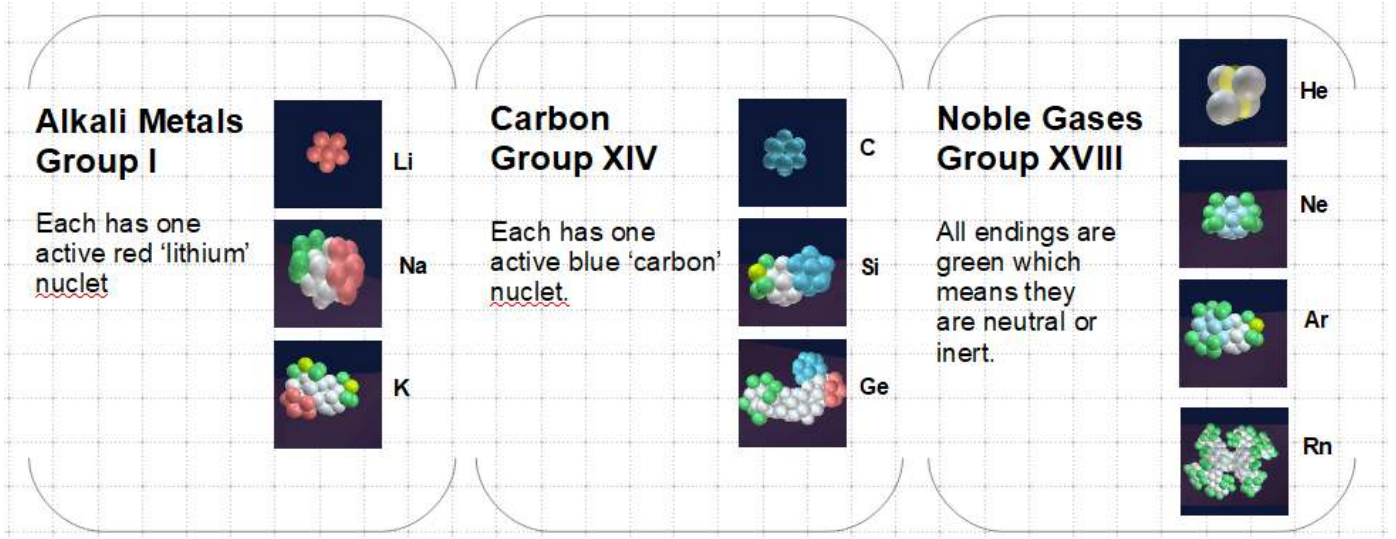


Sam linked to the properties of the elements

Cycle of 8

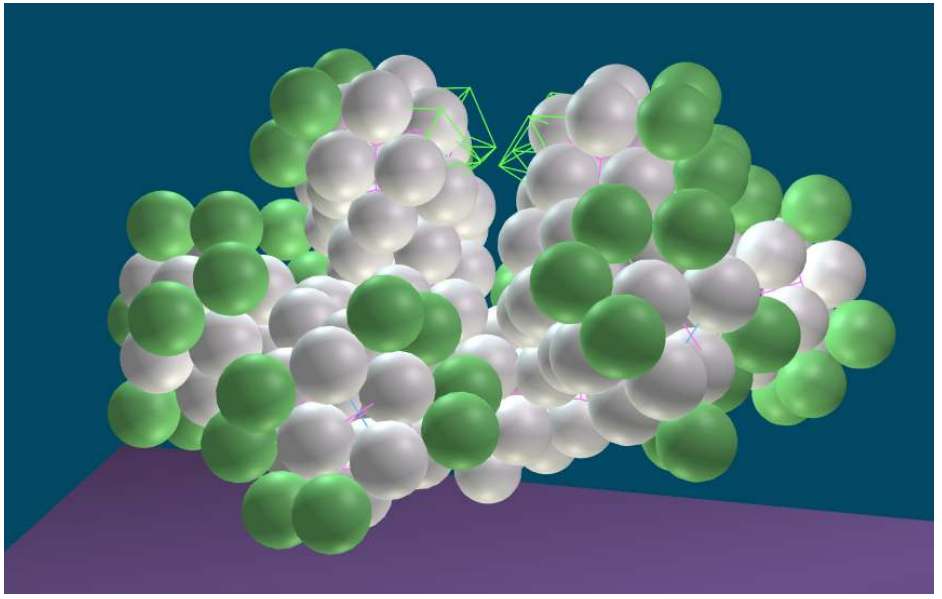


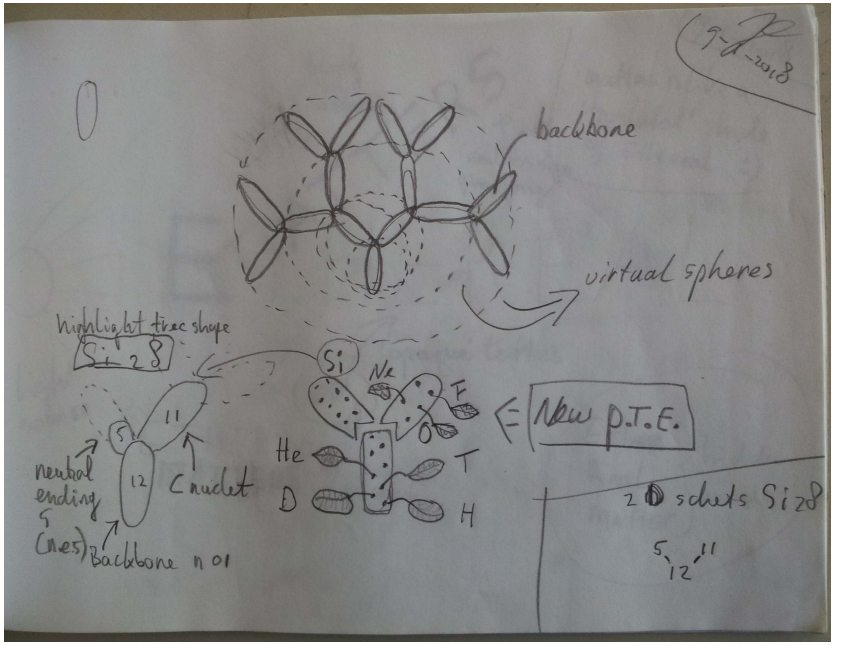
Groups



Summary model

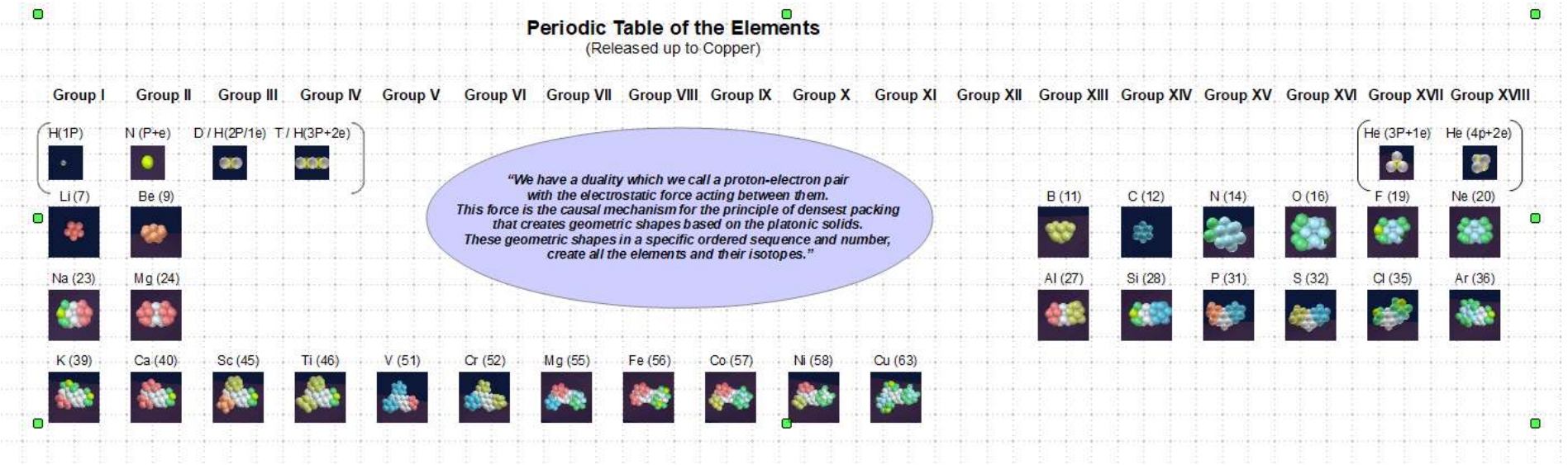
- The nucleus shows polarity
- Nuclets – The nucleus is constructed from (repeating) recognizable geometric groupings
- The (active) nuclets in combination with the larger structure (backbone) results in the properties of elements





Slide x - Show the current PTE up to Copper

- The first 29 identified elements



For more information and background (most assuredly a work in progress) visit the page

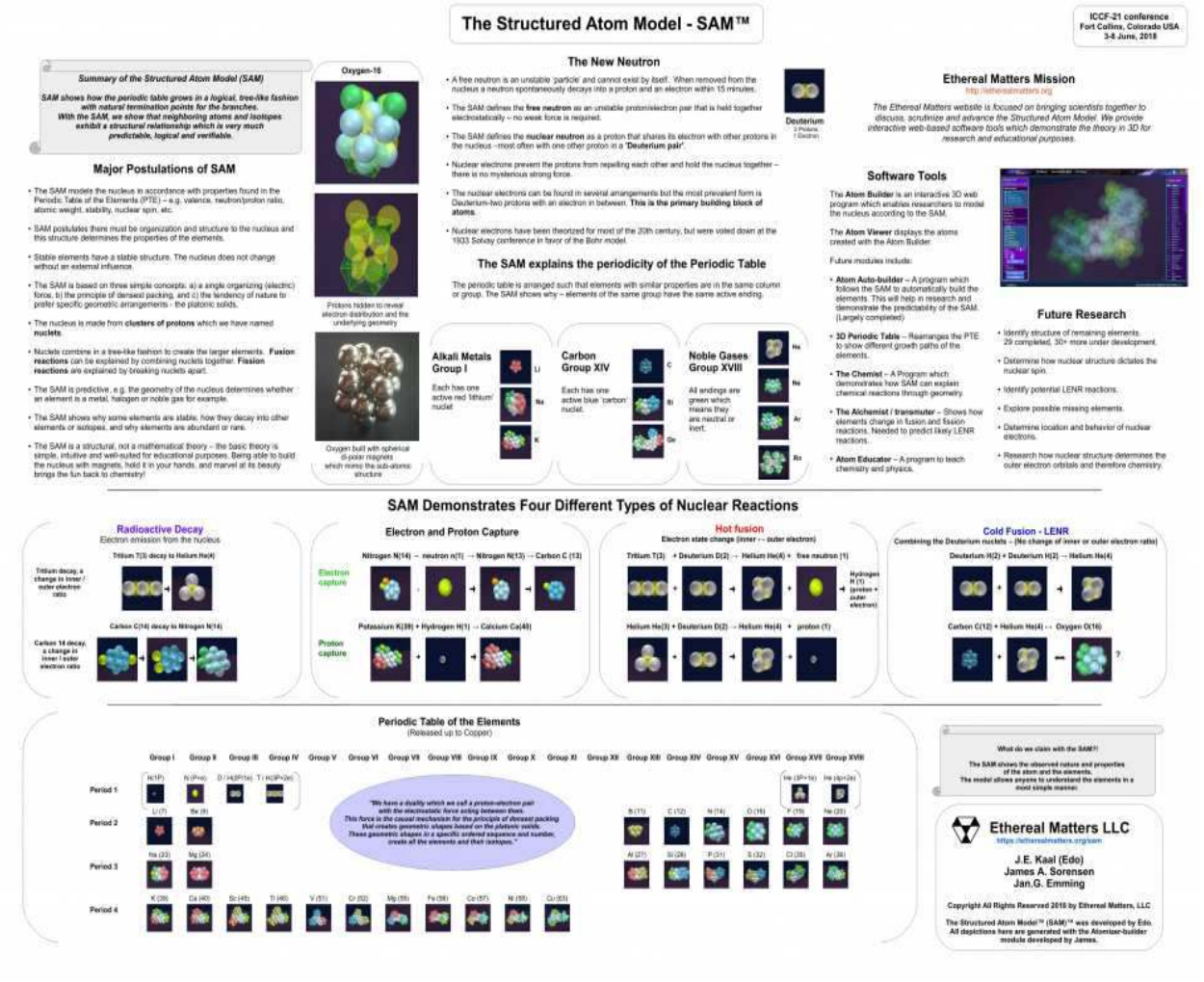
https://etherealmatters.org/sam

The atom according to the SAM:

- Is based on the duality proton – electron
- Is structured according to specific rules (of growth) and shape
- Shows the properties of the elements are dictated by the structure of the nucleus
- Is static in nature
- Tends to repel absorption of energy or find its ground-state again
- Has no need for a strong force
- Does not need mathematical equations to depict the nucleus

slide x – picture of CSU ICCF-21 LENR

About a month ago the SAM group visited the ICCF-21 conference with the intention of learning about the field, promote the SAM by presenting a poster **poster ICCF-21** and learn about the LENR field



Slide x – Picture of presentation ICCF-21

Conference room →

- Experimental data presentations
- Hydrogen or Deuterium fusion
- Transmutations in Nickel or Palladium systems trans-mutating into Copper and Silver respectively.

During a special session that dealt specifically with the atomic structure and things like “binding energy” we learned that since 2016 - A structure for the nucleus **is** now allowed

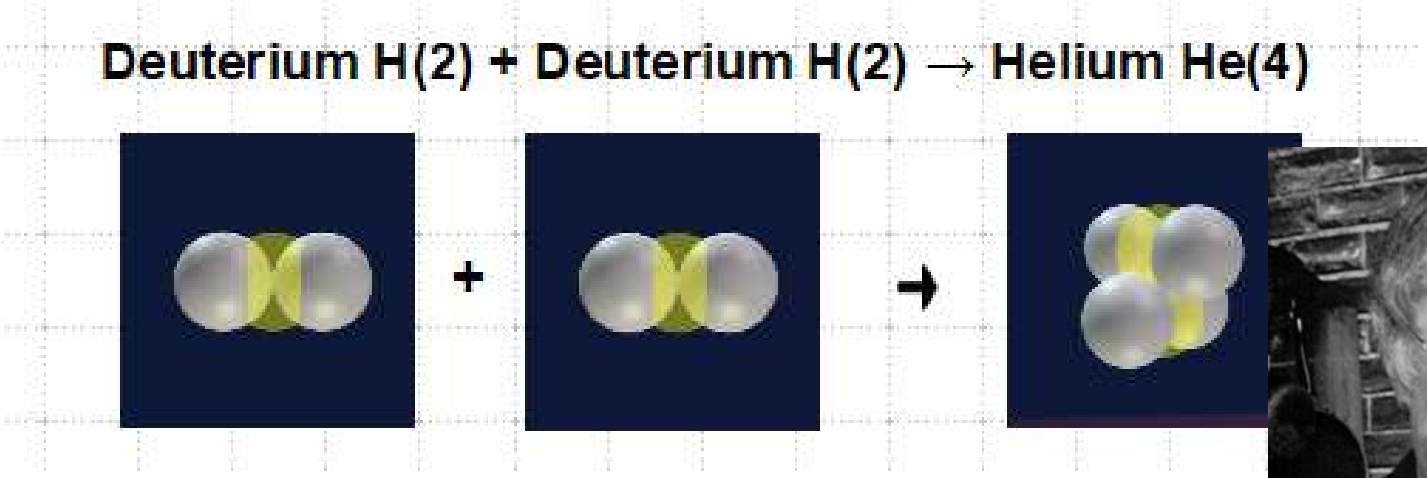
Slide x – issues in the LENR field preventing a break-through

Issues that were highlighted were

- lack of controllability - control of the electrodes proves difficult
- no theoretical model - reactions are not understood
- repeatability is not always assured

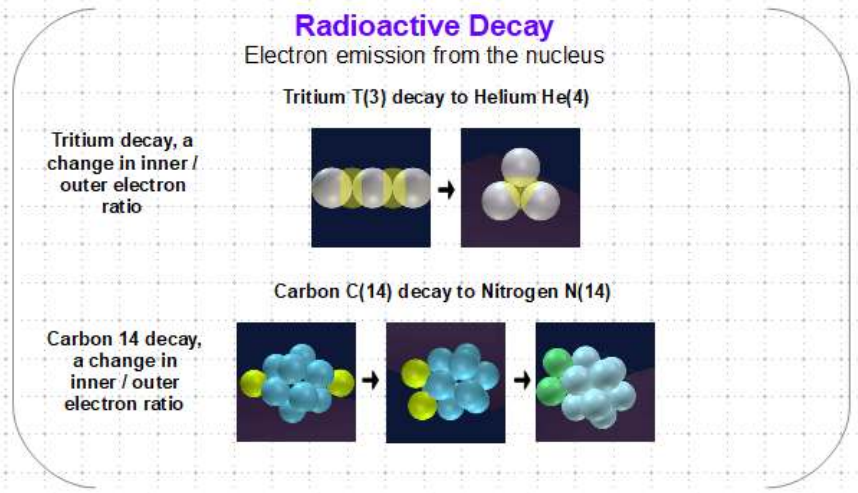
Stanley Pons & Martin Fleischmann

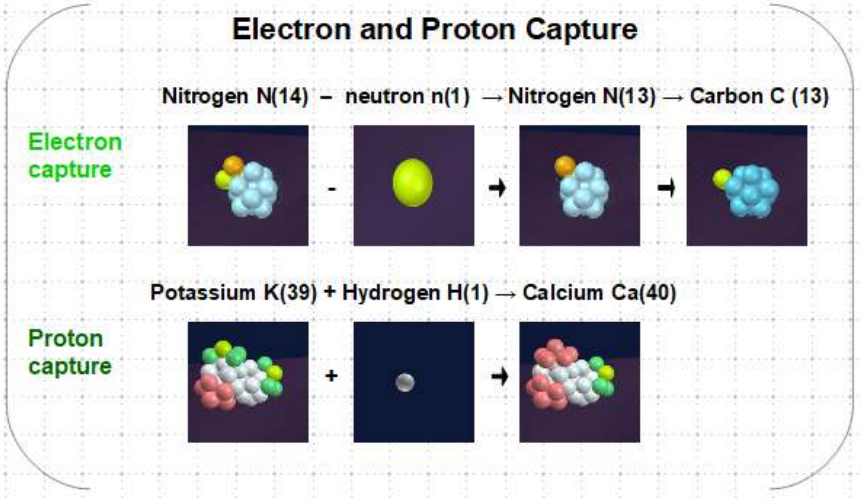
Yet the original experiment by Pons and Fleischmann (1989) has been recreated by Melvin Miles (1991) in such a way that it is / should be indisputable. Excess **Heat and He4** production from D2 is precisely correlated.



nuclear reactions

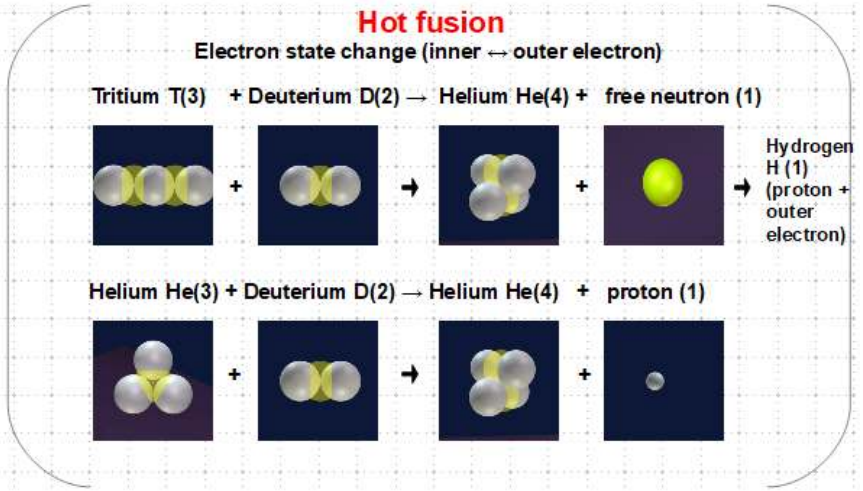
We learned that these experiments are solid but that there remain problems in actually making a break-through in such a way that LENR is really accepted.

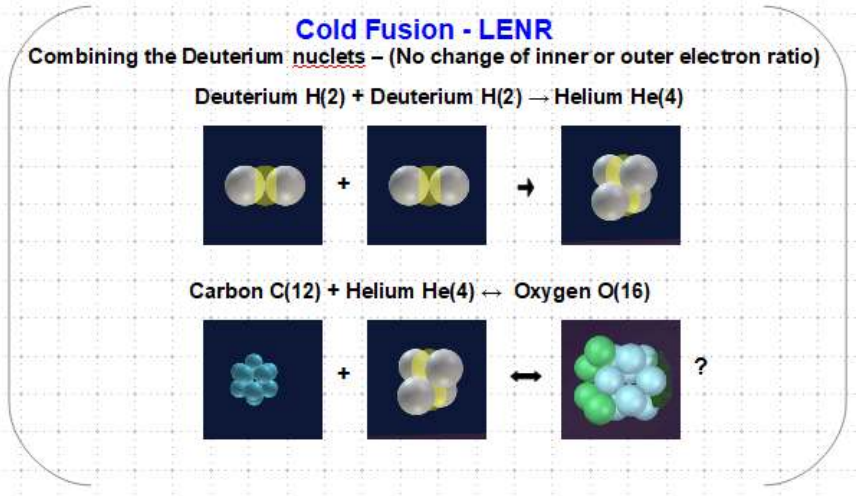




Slide x - with nuclear reactions

We learned that we can make a differentiation between hot and cold fusion and that the SAM model allows and is able to depict the nuclear reactions (products).





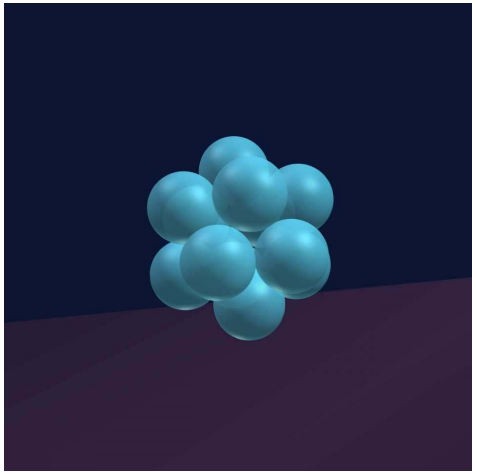
The Electric component - Linking pin

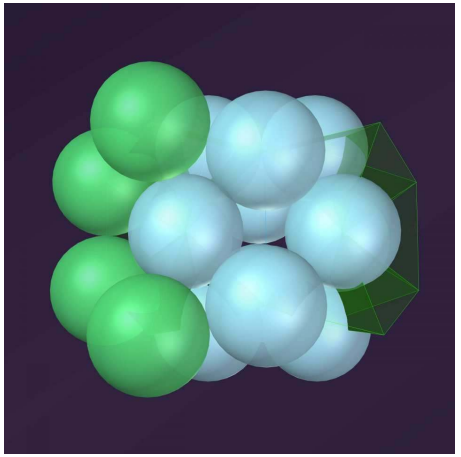
The ICCF community is trying to find a model that would predict reactions (LENR) and therefore help in achieving a break-through.

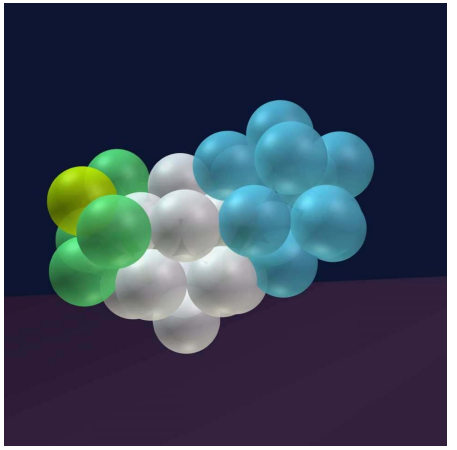
Example of suspected reaction taking place in geology

C + O → Si + E (heat)

This is important for both the EU and the LENR community







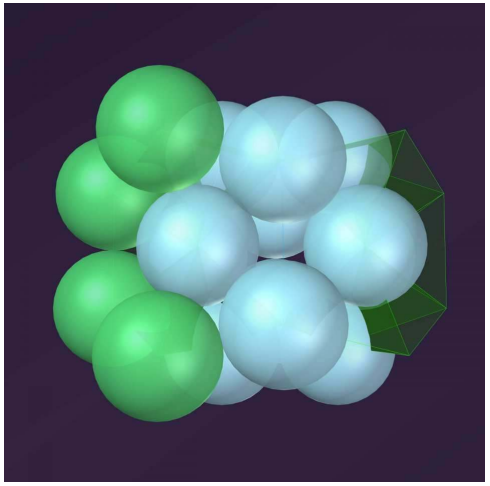
slide x – several bullet points

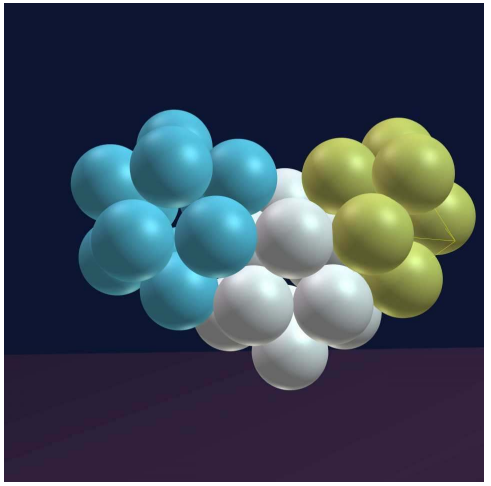
Nature provides many hints of transmutations going on.

- Kervran – biological transmutation such as
  K39+H → Ca40
- Peter Mungo Jupp – instant petrification
  Petrified animals imply instant events
- James Sorensen who will be presenting during our tour to the Cheddar Canyon explaining Geology through “ electric glasses”
- Too many to name when one starts looking for transmutations...

slide x - The Oxygen group.... Sulfur

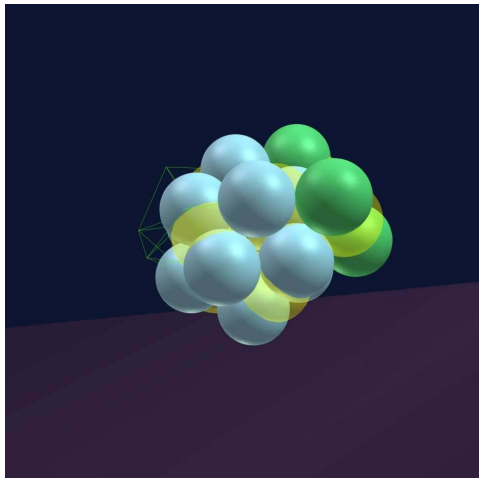
When we take a look at the Oxygen group for example we find that the elements are in the same (Oxygen) group but that Oxygen itself is very different. When we examine this closer we can see that Sulfur has the right numbers to be a combination of two Oxygens.
Assuming this takes place, what would happen?



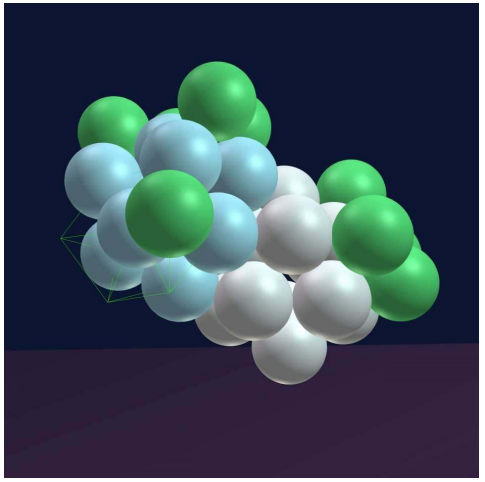


slide x – oxygen group and the elements

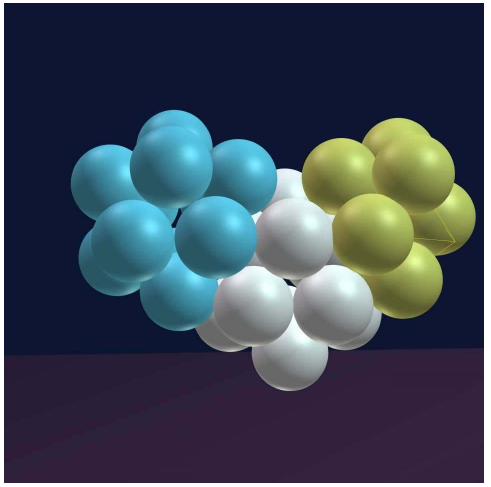
- Oxygen



Sulfur (2 fused O)
In-between state?



Sulfur



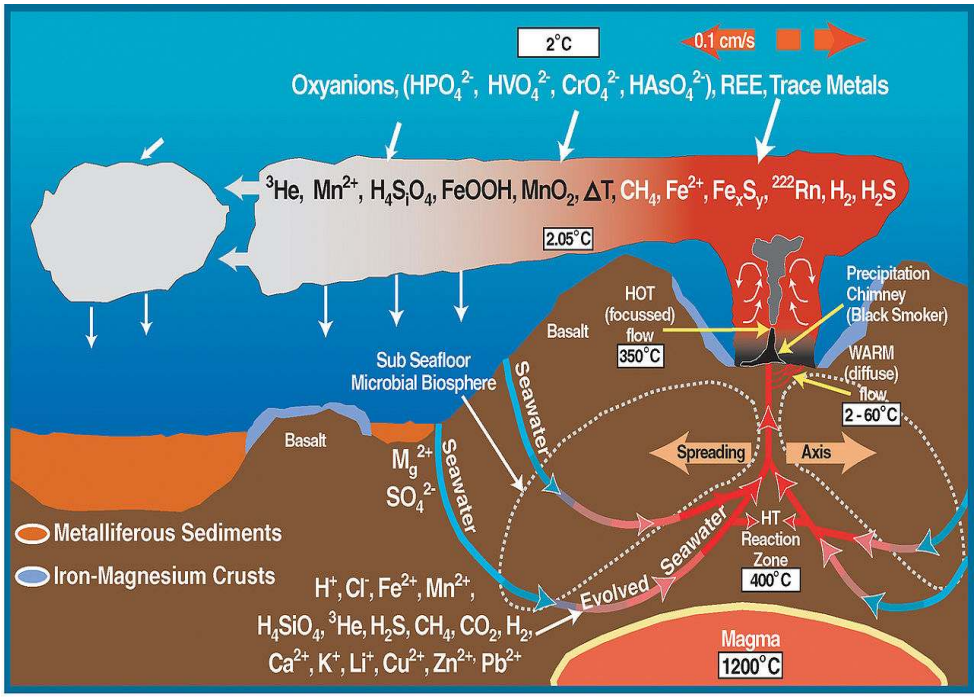
2O16 → S32 ? (# protons & neutrons/inner electron are the same before and after)

Slide x - Hypothesis

Slide x - Hypothesis I want to put out: Could it be that Magma is a result of a LENR reaction ignited by Telluric current, pressure and heat producing excess heat and different / heavier / all the elements?

Mid oceanic ridges – the conventional story

- The ocean's contain at least a million volcano's and many more vents (black smokers)
- High abundance of Sulfur. The S tends to rise up as H20, S, So2 etc.
- The **Moho**rovičić discontinuity on average 35 Km deep +- 500 m thick



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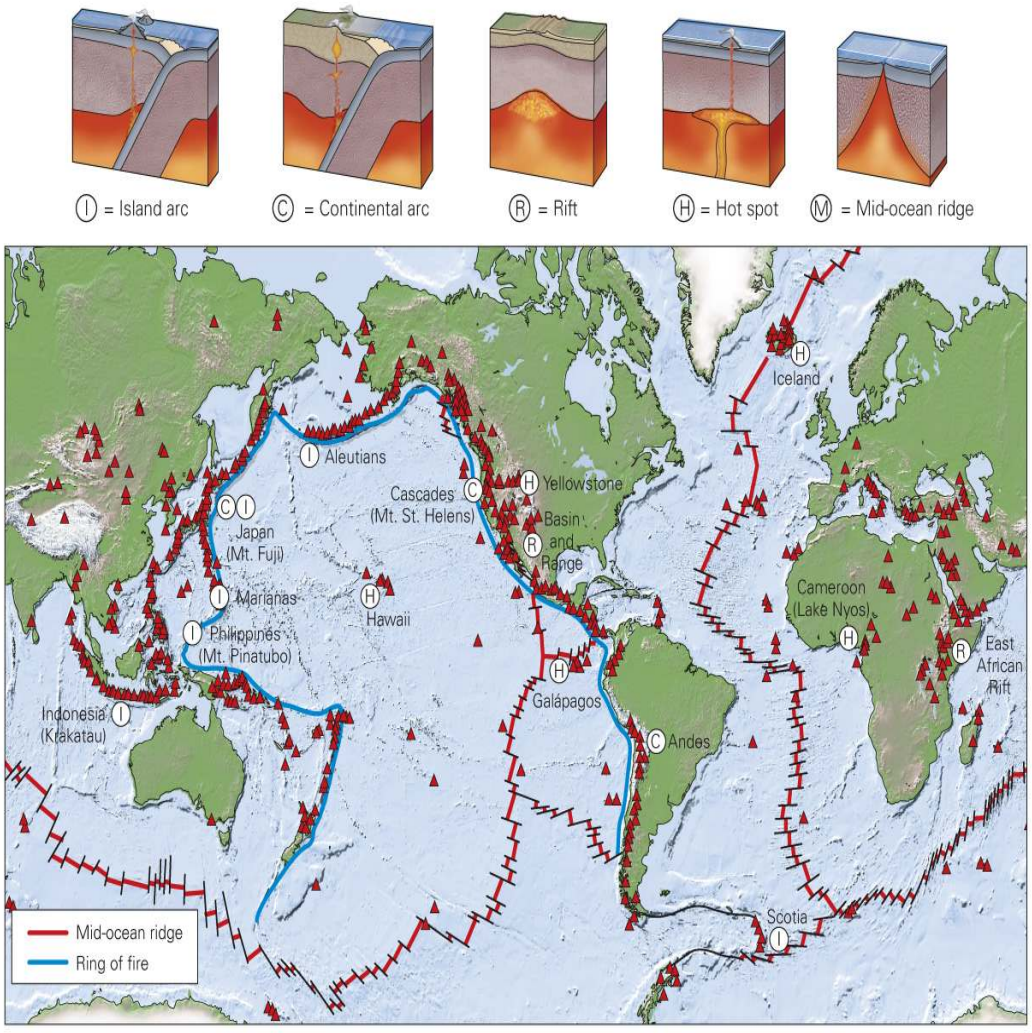
Magma Type	Solidified Rock	Chemical Composition	Temperature	Viscosity	Gas Content
Basaltic	Basalt	45-55 SiO2 %, high in Fe, Mg, Ca, low in K, Na	1000 - 1200 C	Low	Low
Andesitic	Andesite	55-65 SiO2 %, intermediate in Fe, Mg, Ca, Na,	800 - 1000 C	Intermediate	Intermediate
Rhyolitic	Rhyolite	65-75 SiO2 %, low in Fe, Mg, Ca, high in K, Na.	650 - 800 C	High	High

- The outer core is suspected to be mostly Iron, but magmas are silicate liquids. Thus, magmas DO NOT COME FROM THE MOLTEN OUTER CORE OF THE EARTH.

volcanoes / black smokers

- What is we put in LENR reaction into this?
- Heat is produced, Oxygen is transported into the bowels of the earth, Sulfur is available in large quantities! Volcano's

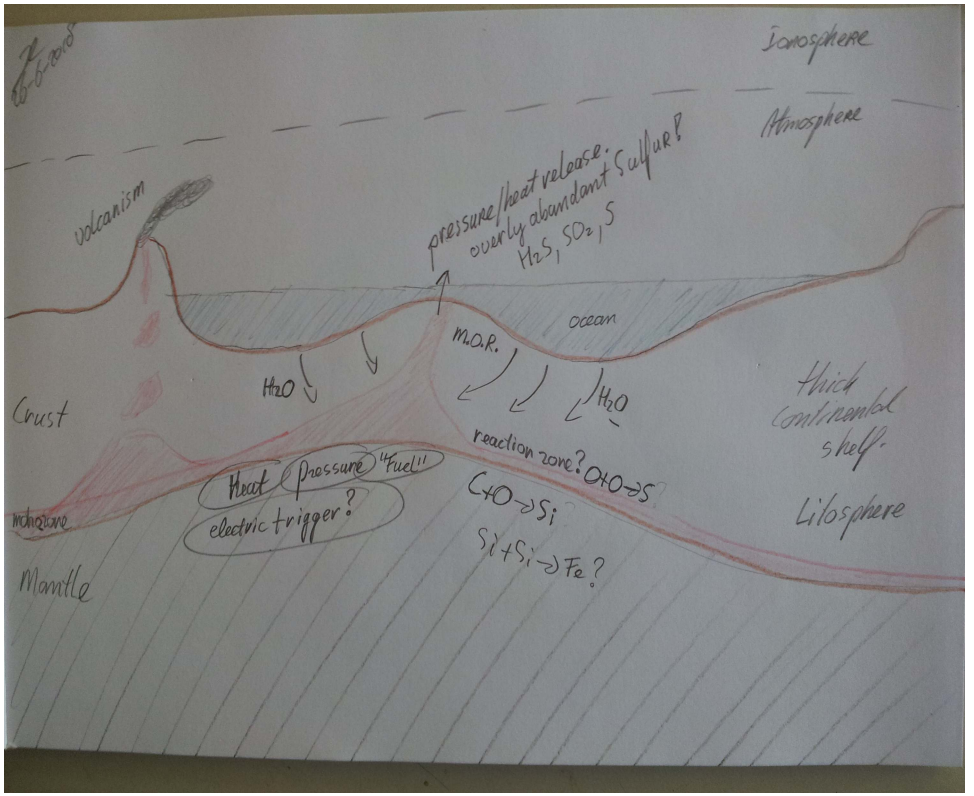


hydro cycle

LENR reaction and heat creation, creation of Si ! (SiO2) and lots of other products. And the lighter elements are brought to the surface. The Si (O) remains and increases rock material.

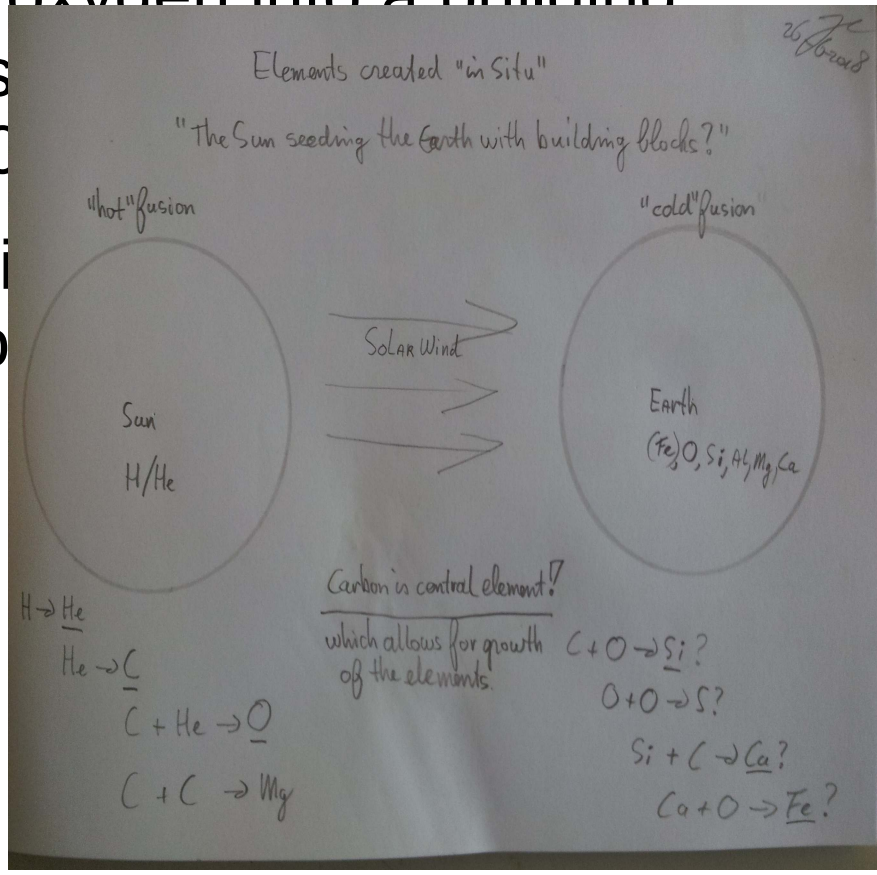
O + O → S + heat ?

C + O → Si + heat?



From the sun to the earth - drawing

- Sun hydrogen into helium, carbon and fusion those into Oxygen? Solar wind 8 % Oxygen / water!!!
  4H → He4 / 3He4 → C12 +He4 → O16
- Earth collects water and turns the oxygen into a building blocks for further fusion processes
  C12 + O16 → Si28 + C12 → Ca40
- Is this connected to geological acti
  Heat release of LENR type reactio
  minerals by using liquid water?



slide x conclusion -

conclusion - Fusion seems to be happening everywhere (in Nature) based on 'cold fusion' principle mainly, meaning no gamma rays. They can be both endo- & exothermic Research and experiments are showing this to be the case (LENR / Krivitsky / Cook) The one thing missing is understanding which leads to predictability and controllability

The SAM model can help us understand all these processes better and help determine what is going on here to fill in this missing piece of the puzzle. When we understand the reactions better we could potentially even make them usable in technology LENR) for energy creation for example or the creation of certain element and isotopes. Nature seems to do it all the time!

The elements are created more or less in situ!

Slide x - Discussion:

- a break-through seems to be close
- Through collective collaboration we can achieve a real break-through.
  The theorists
  experimentalists
  observers of nature
- Only by working together we will succeed. The LENR field is a promising one and one that I believe is in concert with the EU paradigm. The SAM model can be the conduit between the two...

Slide x general recommendations

- more collaboration
- Crossing boundaries of disciplines (scientific fields)
- Need for a new understanding / paradigm shift and the will to do that..
- Attract more investments, without this progress is slow at best
- Attention / exposure, “How to reach the mainstream”?

Presentation target

- Inspired others to explore the idea of (in-situ) creation of the elements differently from the standard model
- Potential of the SAM
- The need for a good atom (physics) model
- Usefulness of SAM for learning and understanding
- And to inform those interested about what “we have been up to”... so far

Thank you on behalf of the team

The team:

Edo Kaal

James Sorensen

Jan Emming

With special thanks to!

Adrian Gilbert

Lucy Wyatt

And to all the others out there that helped in their own way to advance the model