



Editorial

LIVE AND LET DIE. THE SCIENCE OF MATTER

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Upon construction of his theory of relativity Albert Einstein left us with the remains of his secret: the humankind will take at some 50 years to understand what I have just written:

$$E = m \cdot c^2$$

Einstein also gave us the illuminator: nuclear fission.

What else do we need ? Big question. Simplicity is the word of the rule to follow: *Kiss ! (Keep it simple, stupid !)* The nature itself follows its own immemorial rule: simple ... but not simpler !

The synergy comes only to complicate things while it gives insignificant advantages.

Let's take this very simple (but true) instance: a feasible technology to provide domestic water onto the Danube Delta Biosphere is to install several domestic ozone generators; whoever tells you that UV light in tandem with ozone and some other photocatalysts is better, that one is simply wrong because it didn't follow the first rule – kiss. Though the Biosphere inhabitants will tell you that the fish meal made with unpurified Danube water tastes like nothing else; well, the taste does not stand for biological hazard.

Let's go further with materials science: worldwide threat is the energy crisis. We are nothing but energofags, in other words, energy eaters. The Hiroshima bomb converted only 0.6 g of uranium into energy, but gave tremendous disruptive force.

So what do we do to generate energy: we burn fuels ! (whatever their genesis but mostly fossil). Okay ... nothing wrong with that, most of the oil kings around the World might say. Nothing but false true, I say !

How the energy passes through the Universe ?

The energy passes through the Universe by its energy spectrum in small but many carriers called photons. Let's take a look on the wavelengths: InfraRed 0.7 to 300 μm , Visible 390 to 750 nm, UltraViolet 10 to 400 nm, Röntgen Ray 0.01 to 10 nm, and finally gamma Ray around picometers. As the wavelength shortens the energy rise up; the most energetic radiation is therefore the γ . It follows that we simply not seek for the energy at the right place; we just manage to burn some so-called "fuel".

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The “green” materials science is so far focused on how to capture the IR-VIS range. And optical-activated materials accounted for the most of their efforts. However, such approach is based only on assumptions; these assumptions comes from what Humankind itself is based: Predictability !

I have learned that the irrational (innovative included) acts of the people are due the unpredictability. But they search for the answer only on the bright side of the process, where the picture of “what might happen” is in 16 millions of colors.

Kiss is not always on this bright side – at least not where we are looking for from the energetic point of view !

Science of materials is just another purpose of their dreams; it is a toy in hands of such super-researchers. The real science, the science above all, some would say it is Philosophy. Well, it might be the true if such way of thinking and the after-actions will give you the answer. But that’s not going to happen simply because you have forgotten the referee, which is human need for predictable acts.

The only positive (and maybe true) answer you will get is from the unpredictable science. And the name of that science is simpler: Science of Matter.

I was performing this experiment when a scientist talked about photovoltaic cells and small energy harvesters. The only thing that intrigued me was the energy yield: 10% at maximum. Wow, is that big enough for our world to survive ? just wondering myself. Of course it isn’t.

How about the nuclear energy ? I asked the scientist. The answer was that *we are not talking about “classic” energy generation, we talk about forefront research.*

What ? ... in my mind, of course. You didn’t follow the rule of *Kiss*; the brain damage I was told it is irreversible, ... also in my mind. So we talked over some efficiency at high outputs and the presenter said that it is possible with a series of such small harvesters.

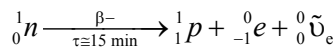
But the real question was not a real question: did you look for the energy at the right place ?!

On the other hand, we’ve learned a lot about Dead Stars, Supernovas and Mighty Suns. I believe it is just informal knowledge for most of the people. But the Universe itself does not speak our language; the Universe is speaking only through its facts. The fact that some star died, the fact that some star became Supernova just before dying. And the fact that there are several (I really don’t not how many, but the number is big) stars greater than the Sun.

The Universe also tells us something else; I don’t know if it is important to you or not, but it sticks to the *Kiss* rule: the death comes in many shapes: neutron conglomerate shape is to be the most common way. But what if ones wish to go further; what is beyond neutral charge ?

The Supernova state will be the so-called the stationary stable “intermediate” shape. Beyond this shape it’s the Real end (or not ?): the Black Hole !

I remember that, for the mass conservation to be ruled (Wolfgang Pauli), some anti-matter particles have been defined. This is the “predictable” way of thinking:



where $\tilde{\nu}_e$, the electronic antineutrino, belongs to the “anti-matter” environment.

The predictable way of thinking would say: when the electrons from the electronic shell collapse onto the protonated nucleus, the star will die; a neutronic mass is to be formed, and the star is called Neutron Star.

Okay, so why are the Supernovas forming and, especially, what’s with the Black Hole ?

This is the territory beyond “predictability”.

Coming back where the energy is traveling through the Universe, or better saying it supplies the Universe’s Energy, the answer is simply: The Black Hole !

But the Black Hole is one form of death ! or not ?!

Where is life coming from then ? It is coming from death.

This would be, in my humble opinion, the true source of energy, the true source of life.

What options do we have ? Either we seek for the matter being capable to convert gamma energy onto useful meanings or we control the nuclear fusion. In both cases no material is of any help; only matter is.

And we also have to learn another thing which, in turn, it might be helpful: how to produce enough energy that any loose of it is affordable. We then might become net contributors to the universal Energy.

The truth is still remaining: we are nothing but just a bunch of energofags.

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