# Exploration

# Exploration on the Release of Human Brain Energy at the End of Human Earth Life

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### Abstract

In this paper, we applied our model for human brain binding energy to the study of last moment of human Earth life. Considering the result of Chawla *et. al.* result (Chawla, 2009), we argue that observed surges of brain/mind waves are the emission of full binding brain energy (Kozłowski, Marciak-Kozłowska, 2017).

Keywords: Human brain, binding energy, release, death.

## Introduction

A study of seven terminally ill patients found identical surges in brain activity moments before death, providing what may be physiological evidence of "out of body" experiences reported by people who survive near-death ordeals.

Doctors at George Washington University Medical Faculty Associates recorded brain activity of people dying from critical illnesses, such as cancer or heart attacks [Chawla, 2009]. Moments before death, the patients experienced a burst in brain wave activity, with the spikes occurring at the same time before death and at comparable intensity and duration. Writing in the October issue (2009) of the Journal of Palliative Medicine, the doctors theorize that the brain surges may be tied to widely reported near-death experiences which typically involve spiritual or religious attributes. The EECs were being used to monitor patients' level of consciousness as doctors and families wrestle with end-of-life issues.

The doctors believe they are seeing the brain's neurons discharge as they lose oxygen from lack of blood pressure. In Fig .1 the results of Chawla et al are presented. In paper [Kozlowski M, Marciak-Kozłowska J, 2017] we calculated the brain binding energy,  $E_b=10^{30}$  GeV. When the blood pressure dropped to zero the binding energy is released in the form of energy spike seen in EEG spectra as in fission energy of nuclei detected in decayed nuclei.

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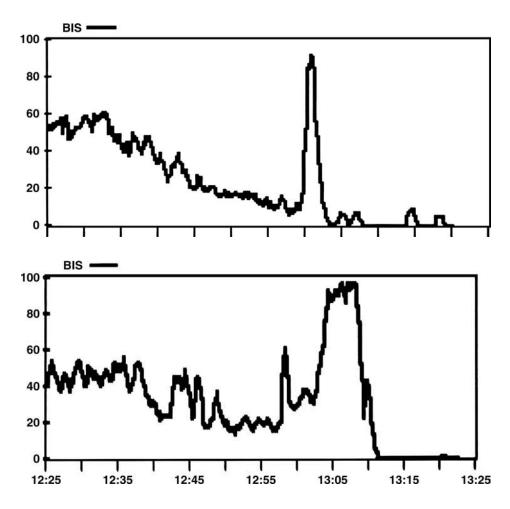


Fig.1 Surges of EEG observed by Chawla et. al. The pronounce peaks of emitted energy are noted by EEG and BIS

#### Human Brain

It is well known that the mass of human brain equals 1,5 kg, On another side human brain consists of  $10^{11}$  neurons with mass of each equals  $10^{-8}$ kg. (Kandel E R, 2012) We have the serious problem: mass of all neurons is equal  $10^{3}$  kg – is impossible great and is greater that the full body of an adult human. When I consult this fact with many neurologists they do not refuse my calculation

Our hypothesis is. The formula for the mass of human brain is not complete. My new formula for the human brain is

$$M_{HB} = N_N \bullet 10^{-5} g - B_E \tag{1}$$

In formula (1)  $M_{HB}$  denotes Human brain mass,  $N_N$  is the number of neurons in human brain and  $B_E$  is human brain binding Energy. The binding energy can be calculated as (see Table 2 for numbers)

Table 2	2
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	Mass	Mass in energy units,c=1
Proton	$10^{-27}$ kg	~ 1 GeV
Human brain	1.5 kg	$\sim 1.5 \ 10^{27} \text{GeV}$
Neuron	10 <sup>-5</sup> g	$\sim 10^{19} { m GeV}$

$$B_{G} = -M_{HB} + N_{N} \bullet 10^{-5} g$$
  

$$B_{G} = -1.5kg + 10^{3}kg = 998, 5kg = 9.98 \bullet 10^{29} M_{p}$$
  

$$B_{G} = 9.98 \bullet 10^{29} 1 GeV$$
(2)

From formula (2) we conclude that the binding energy contributes about 99% of the mass of human brain Binding energy is the *biological dark energy* The same situation is for proton structure. The mass of a proton is about 980 MeV. By comparison the "bare "mass of an up quark is around 2 MeV and the bare nass of down quark is 5 MeV. A proton has two up quarks and one down quark , which combined contribute to only about 10 MeV. The rest of the mass about 970 MeV, comes from binding energy.

We can calculate binding energy per neuron:

$$\frac{9.98 \bullet 10^{29} GeV}{10^{11}} 9.98 \bullet 10^{18} GeV \tag{3}$$

It occurs that binding energy per neuron in human brain is equal to mass of Planck particle; ( $M_p=10^{19}GeV$ ) the building block of the Universe.

It is well known that system brain- mind is unstable and have the limited lifetime. The binding energy keeps the system only for limited period of time At death moment the interaction psychebrain breaks and superfluous binding energy is released.

## Conclusions

The design of human brain – mass of neuron and number of neurons enable the calculation for the first time the new characteristics of brain, its binding energy =  $10^{30}$  GeV. In the case of brain the binding energy is the first and fundamental quantum property of the brain.

To the point: We have possibility to separate brain (the neurons, axons etc.) and mind (binding energy of the brain). We argue that binding energy is the nest of consciousness. The stop of blood flow in death moment started the emission of binding energy.

#### References

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