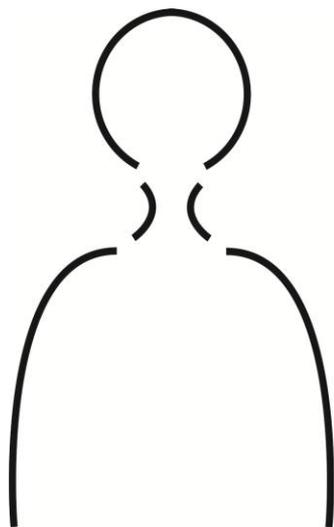


Cyclic protomodel and phenomenon of evolution

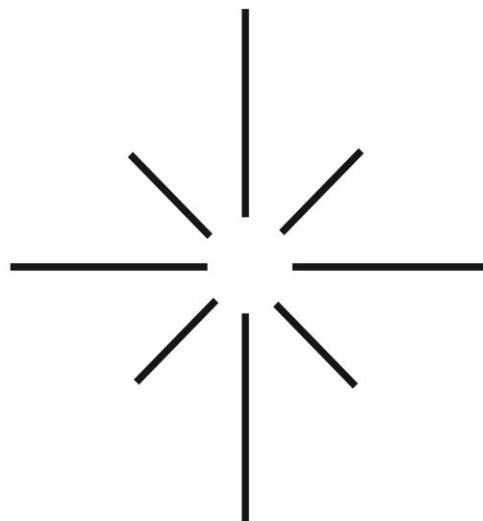
Boris F. Chadov
Institute of Cytology and Genetics,
Russian Academy of Sciences, Novosibirsk, 630090, Russia

Fig. 1.

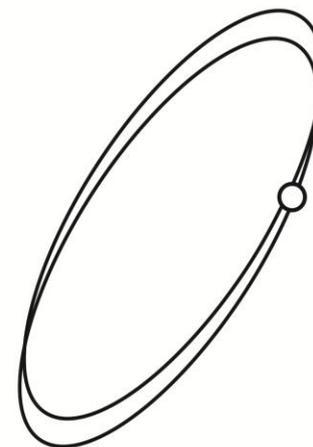
Three protomodels (Divine, «Great Explosion», Cyclic)



I

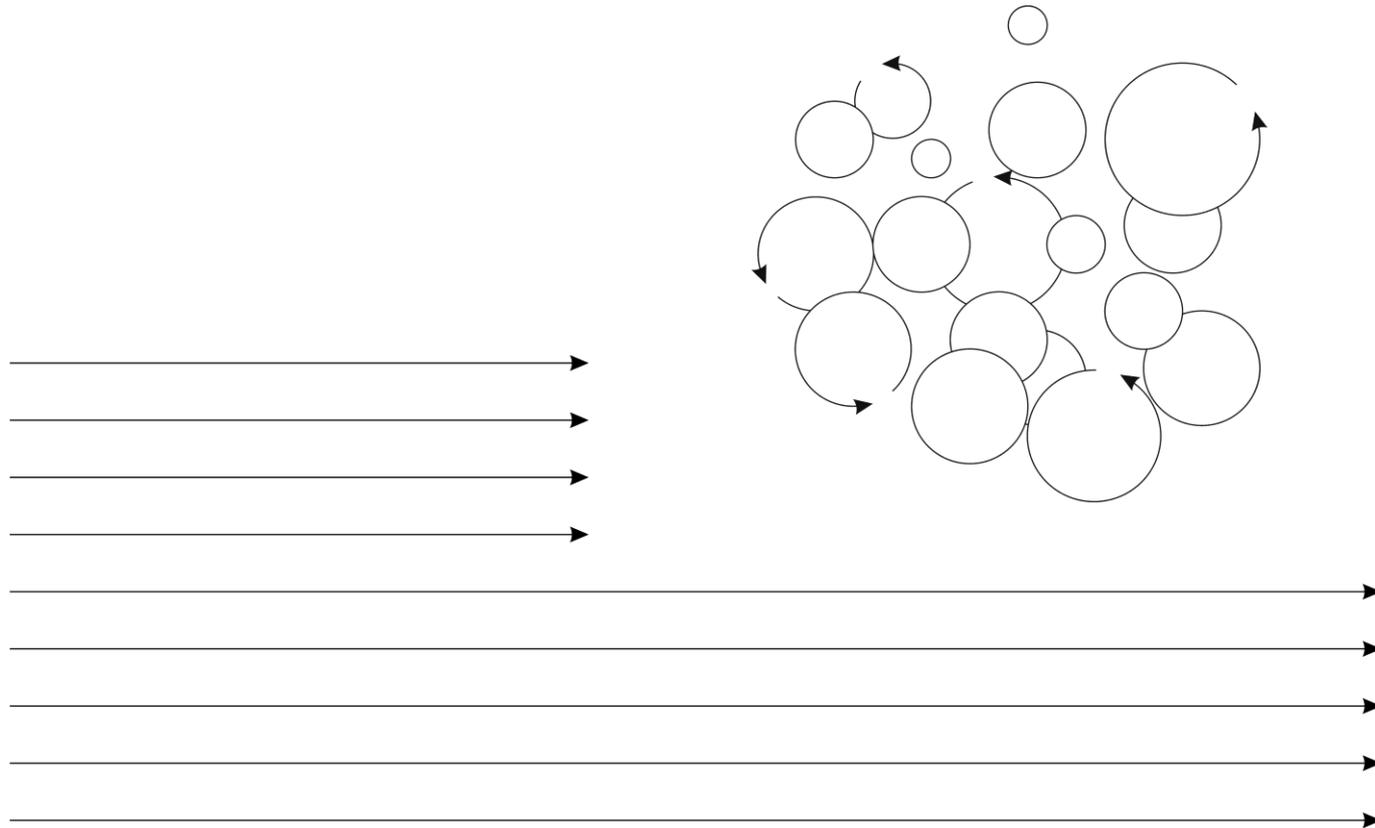


II



III

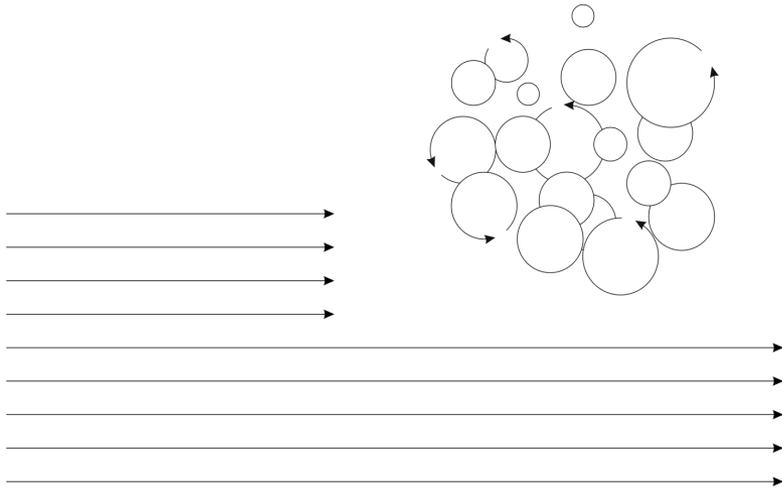
Fig. 2. **F**ormation of matter from promatter*



•Chadov B.F. Cyclicity of living things and matter. *Philosophy of Science*, 2008, №2 (37), 134- 161.

Fig. 3.

How circlic movement creates matter



1. Repetivity

Cyclicality implies repetivity, repetivity makes possible reflection, reflection generates integrity, reality, matter, solidness.

2. Delimitation

Circle or quasicircle (coil) delimits a part of space from entire space. It breaks space down into things. Thus emerges structural organization of the world.

Fig. 4.

Supercycle «flow – matter – chaos» in the Cosmos

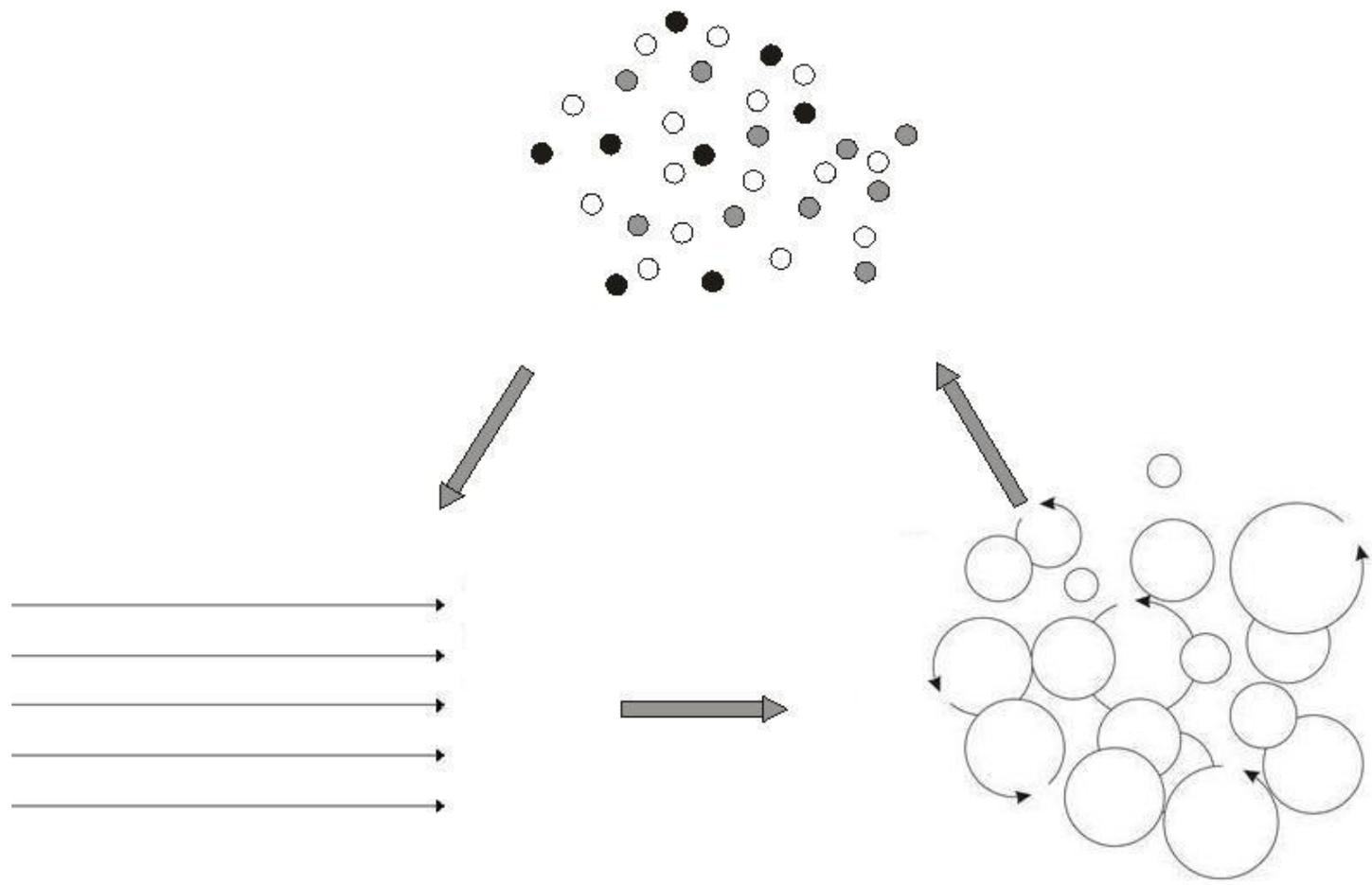
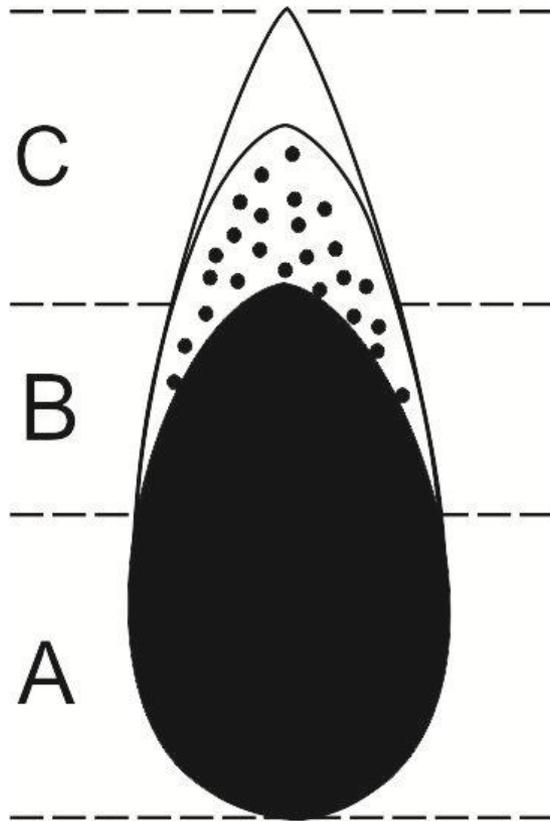


Fig 5.

Three forms of matter



C – **consciousness** (light), includes a part of living matter (circles) and a part of inert matter (black);

B – **living matter** (circles), includes a part of inert matter (black);

A – **inert matter** only (black).

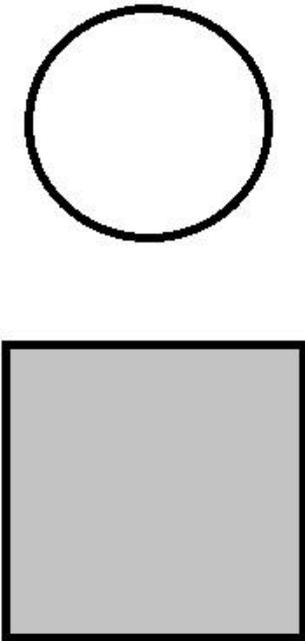
Fig. 6.

Hierarchical levels of matter organization: their energy

(from Evdokimov, 2003)

Level of organization	Energy of binding (electron – volt)
Quarks and leptons	-
Nuclons, systems of quarks	$0,3 \times 10^9$
Nuclei of elements, systems of nuclons	7×10^6
Atoms, systems of nuclei and electrons	30
Molecules, systems of atoms	3
Macromolecules	0,2
Prokaryotic cells (organoids)	-
Eukaryotic cells	-
Multicellular organisms	-
Families, herds, populations	-
Biocenoses (ecosystems)	-
Biosphere, system biocenoses	-

Fig. 7. **Cyclic protomodel: new thesis**



1. **Conversion of laminar flow of energy into vortical cyclic flow.**
2. **Finite quantity of energy at conversion start.**

Fig. 8. **E**xhaustion of energy store by cycles
with
decreasing energy capacity

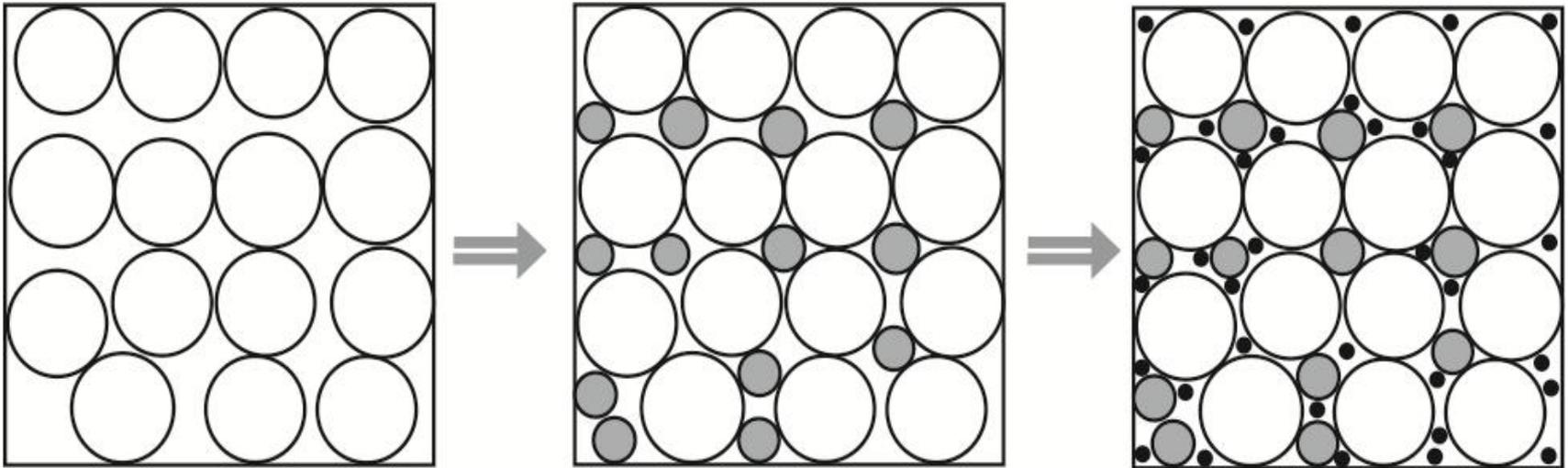


Fig. 9.

Energy levels and material objects: explanation of evolution

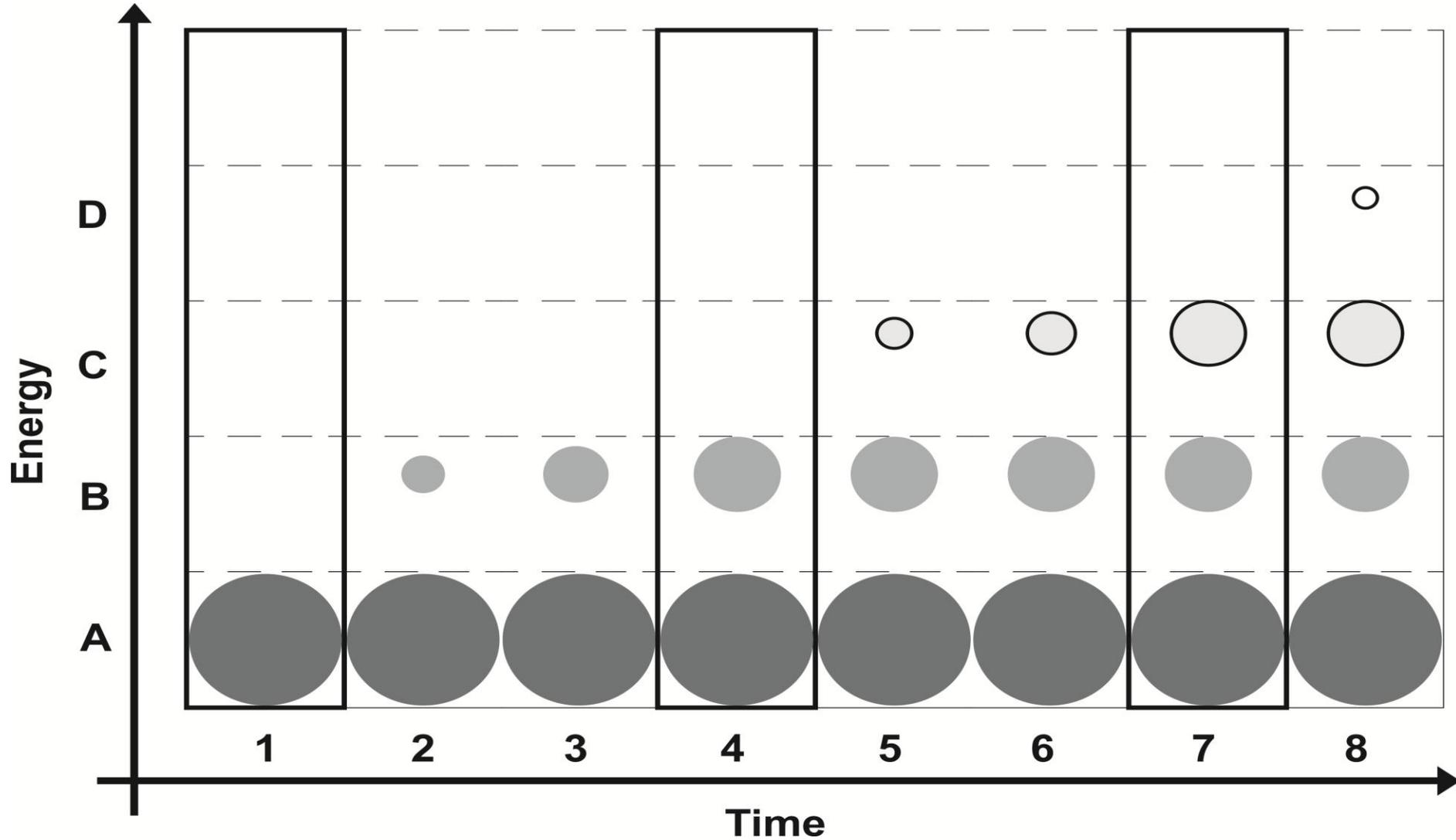
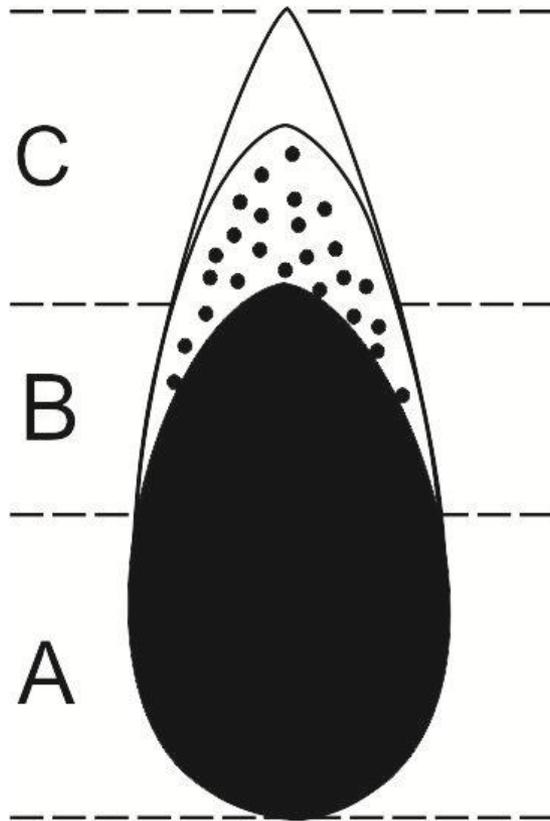


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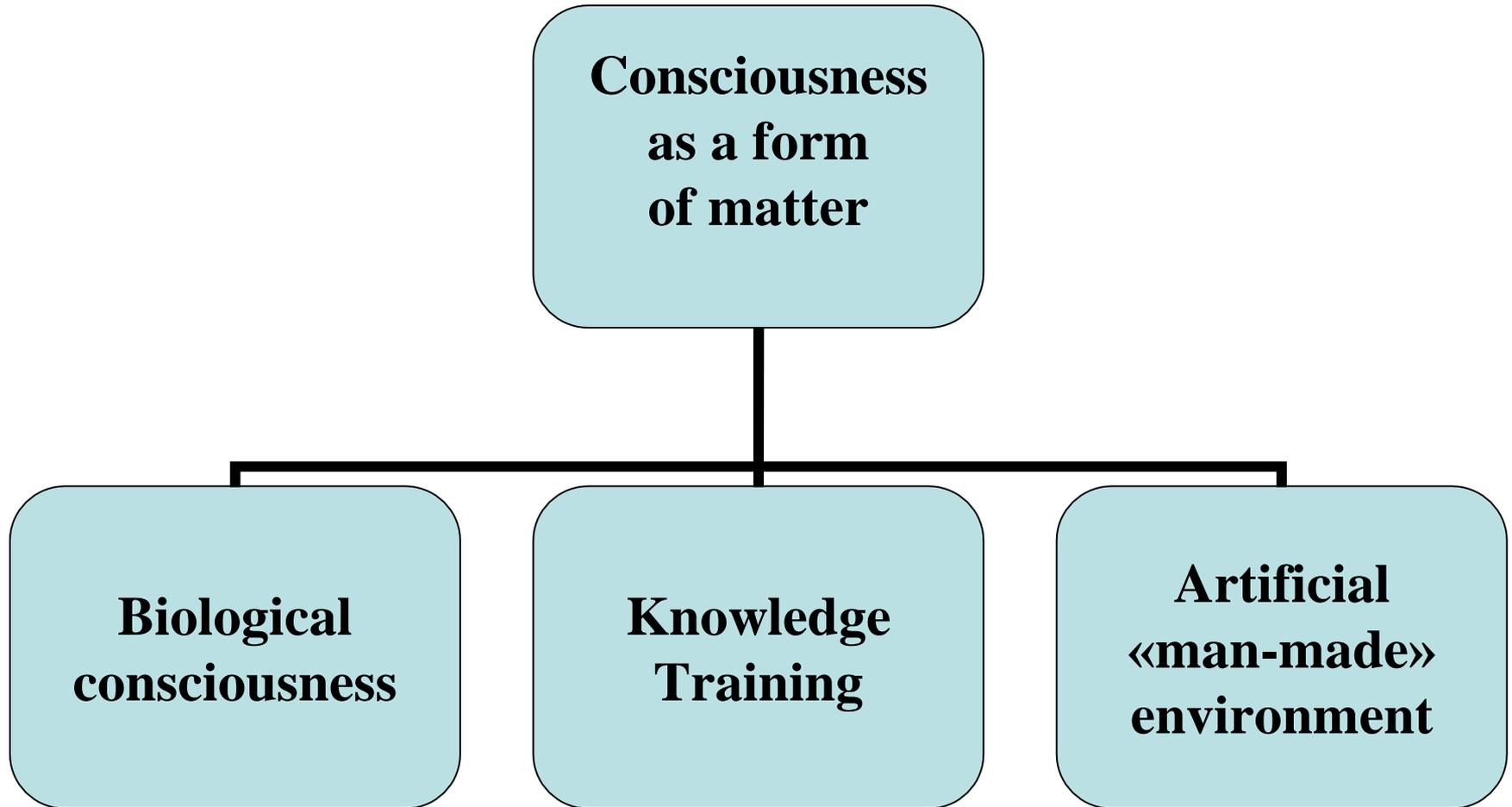
Fig. 10.

Explanation of evolution

- **Evolution** is one of the phenomena of conversion of energy into matter (Universe formation);
- **The cause of evolution** is exhaustion of the initial energy store;
- **The essence of evolution** is the generation of new cycles with decreasing energy capacity;
- Every evolutionary innovation consists of the old base and the new superstructure;
- To retain novelty, **the base must stop evolution**;
- Mechanism of energy exhaustion set by cyclic protomodel **guarantees cessation of evolution** of preceding levels of matter.

Fig. 11

A broadened interpretation of consciousness as a form of matter



Conclusions

- 1. The Universe is part of the Cosmos. It is formed during conversion of laminar energy flow into cyclic flow. Conversion represents of generation of cycles of definite energy capacity.**
- 2. The amount of energy subject to conversion into matter is finite, for this reason, matter formation is associated with exhaustion of the initial amount of energy.**
- 3. With decreasing energy amount, conversion proceeds through formation of cycles of smaller capacities.**
- 4. Evolution is one of the phenomena of Universe formation; It consists of (1) emergence of innovations and (2) saving innovations.**
- 5. Currently evolving consciousness, the evolution of inert and living matter was left in the past.**



Thank you very much for your attention !