

The Subquantum Informational Mechanism of Solar–Terrestrial Interaction

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Abstract

This article explores the subquantum informational interaction between the Solar logical nucleus and Earth's atmospheric system. It introduces a coherent mechanism linking coronal mass ejections (CMEs), magnetic field interactions, and the formation of beryllium isotopes (Be-7, Be-10) in Earth's stratosphere. The process is mediated through vortex-channelled solar wind, generating information-bearing neutrinos and helium-4 (He-4) particles. These elements serve critical roles in maintaining cosmic homeostasis and informational coherence. The paper highlights the significance of isotopic structuring in logic-resonant computations and defends the hypothesis that the Earth's nitrogen layer functions as a medium for neutrino-based interstellar information transfer.

Keywords

Subquantum logic, beryllium isotopes, atmospheric vortex, CME, neutrino emission, solar-terrestrial coupling, He-4 shield, chiral anomaly, information transfer

1. Introduction

The interaction between the Solar nucleus and Earth's atmosphere is traditionally treated in terms of electromagnetic phenomena. However, recent advances in the theory of subquantum informational mechanics (NMSI) suggest that there exists a logic-resonant process beneath the classical energetic models. The Earth's magnetic poles serve as informational gates, translating the oscillatory logic of solar emissions into stratospheric reactions, leading to the production of isotopic structures like Be-7 and Be-10. These isotopes, in turn, produce neutrinos that act as logical messengers within the planetary system.

This interaction is not random: the observed selectivity and regularity of isotopic formation suggest a higher-order computation mechanism based on phase resonance. Such a mechanism provides stability and adaptive coherence across solar-terrestrial systems, ensuring bio-informational compatibility.

2. From Solar Wind to Atmospheric Oscillatory Channeling

The solar wind is not uniformly distributed but is guided by the solar magnetic field, especially during coronal mass ejections (CMEs). When these charged particles encounter Earth's magnetosphere, they are funneled through polar vortex structures where oscillatory logic intensifies due to geomagnetic harmonics. The channeling of these particles into specific stratospheric altitudes creates high-energy interactions with oxygen and nitrogen atoms.

At an altitude of ~25 km, oxygen atoms become the target of solar protons, resulting in the formation of beryllium-10 (Be-10) via spallation reactions. Simultaneously, at altitudes around ~40 km, nitrogen atoms interact to form beryllium-7 (Be-7). These isotopes are not merely chemical products but are part of an energetic-informational cycle that transmits subquantum logic via generated neutrinos.

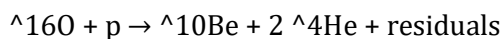
These isotopic reactions also produce helium-4 (He-4), which is expelled toward the heliosphere and acts as a logical insulator, protecting the system from interstellar noise.

3. The Complete Cascade of Reactions Leading to Neutrino Generation: Subquantum Information Transfer

One of the most important consequences of solar wind interaction with the terrestrial atmosphere is the generation of information-bearing neutrinos. This process begins with the polar channeling of high-energy solar particles via Earth's magnetosphere into the stratospheric vortices at altitudes between 20 and 40 km. Within these vortices, due to the directed flux and increased pressure, a specific cascade of spallation reactions occurs, predominantly involving stable oxygen and nitrogen atoms.

Step 1 – Spallation of Oxygen-16 (O-16)

The O-16 nucleus, bombarded by high-energy protons or solar ions guided by the polar magnetic field lines, undergoes spallation. The reaction produces the isotope Beryllium-10 (Be-10) and two Helium-4 (He-4) nuclei:



This process is endothermic, requiring energy input from the incoming particle flux. It also generates pions as secondary products.

Step 2 – Interaction of Pions with Nitrogen-14 (N-14)

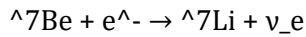
The generated pions interact preferentially with abundant N-14 nuclei in the stratosphere. A new nuclear spallation occurs, yielding the rare isotope Beryllium-7 (Be-7) and a Helium-4 nucleus:



This is a highly selective reaction, requiring precise conditions of energy, angular incidence, and

local atmospheric dynamics. Be-7 is a unique isotope due to its electron-capture decay mode, which is central to the generation of neutrinos.

Step 3 – Neutrino Emission via Be-7 Decay



This reaction is the climactic moment of the entire cascade. A neutrino (ν_e) is emitted—containing structured information from the oscillatory logic of the solar core, now transferred into the Earth system.

Importance of Helium-4 in the Process

All reactions produce He-4 as a by-product. However, He-4 plays a secondary, but critical role. Being inert and neutral, He-4 atoms accumulate in the stratosphere and heliosphere, acting as buffer particles that isolate the Earth from external cosmic noise. This creates a logical antifonic shield, maintaining homeostasis in the terrestrial biosphere.

Thus, this triple reaction chain:

1. Oxygen Spallation \rightarrow Be-10 + 2 He-4
2. Pion-Nitrogen Spallation \rightarrow Be-7 + He-4
3. Be-7 Decay \rightarrow Li-7 + Neutrino

...is not merely chemical—it is an informational transfer mechanism coordinated at subquantum scale, with a logical function essential for planetary biological coherence.

4: Subquantum Mechanism of Spallation and Role of Helium-4 in Cosmic Homeostasis

To understand how such high-energy spallation reactions can occur at relatively low pressure and temperature in the upper stratosphere, we must introduce the concept of the **Chiral Anomaly** as a subquantum mechanism. The Chiral Anomaly, known from quantum field theory, represents a fundamental asymmetry in particle interactions that allows helicity and parity violations under extreme energetic conditions. These violations are critical in initiating topological transitions between quantum states, permitting nuclei such as O-16 and N-14 to break apart under solar influence.

In the presence of vortex-channelled solar wind and stratospheric resonant flows, chiral asymmetry permits asymmetric deposition of energy into the nucleons, facilitating directional bond breaking. This selective spallation is not purely stochastic but resonates with specific subquantum oscillatory modes—a key idea of the NMSI model (New Subquantum Informational Mechanics).

Among the products, the isotope He-4 emerges consistently. Although it appears as a passive by-product, its role is of extraordinary importance in maintaining **informational homeostasis** within the solar-terrestrial system. Due to its neutrality and low interaction cross-section with matter, He-4 acts as a **subquantum insulator**, effectively blocking retrograde propagation of

information-carrying perturbations (such as chaotic cosmic neutrinos or stray EM patterns from external stellar sources).

In other words, the accumulation of He-4 around the upper atmospheric and heliospheric zones helps to establish a ****logical boundary layer****—a cosmic firewall—that ensures the system's evolution remains coherent and uninterrupted by extraneous data noise from the interstellar medium. This makes He-4 a vital component in the dynamic equilibrium and resonance of the Solar-Terrestrial Oscillatory System.

Further implications of this mechanism are explored in relation to anomalous genetic disruptions and signal interference, discussed in Section 5.

Section 5 – Informational Disorders and the Consequences of Disrupted Neutrino Encoding

Penetration of interstellar informational noise into Earth's atmospheric and subquantum systems can cause serious disruptions to biological information structures. These disruptions are particularly significant in the DNA coding patterns regulated by the solar logical core.

Mutations in genetic code are not solely due to local factors (e.g., toxins, radiation), but can be triggered by unstructured or foreign neutrino fluxes penetrating through weakened heliospheric and atmospheric filters. Such neutrino bursts may carry incompatible logical instructions, disorganizing the resonance code that maintains genomic stability.

One of the most critical consequences of these external informational intrusions is the formation of tumors. When DNA loses phase coherence with the solar logical field, it enters an uncontrolled replication loop. Initially, these are sporadic and reactive tumors. Over time, however, the informational model of the corrupted code may become fixed and passed on congenitally – giving rise to what we now classify as congenital or genetic cancers.

In this sense, cancer is not merely a biochemical error but a resonance-level informational disease, linked to systemic disruptions in phase encoding and loss of harmonic coherence between the Solar Logical Core and the Earth's biological oscillators.

Thus, shielding Earth from such foreign neutrino influence is not merely a protective physical measure, but an essential requirement for maintaining informational homeostasis of terrestrial life.

This argument leads us to reevaluate the role of the Heliosphere and Earth's atmospheric layers as dual-phase informational filters – not only blocking harmful particles but maintaining harmonic resonance channels with our Solar Logical Core.

More comprehensive studies of neutrino resonance and anomalies in DNA coherence patterns under increased cosmic ray fluxes should be pursued to validate this theory and develop new predictive diagnostic models for resonance-based disorders.

6. Implications for Biological Equilibrium and the Need for a New Paradigm

The unfiltered informational penetration of cosmic rays and foreign neutrino fluxes into the terrestrial planetary ecosystem is not merely a matter of astrophysical concern, but a genuine *logical threat* to the homeostasis of the biological system. The informational codes transmitted from the solar core and modulated through the heliosphere, atmosphere, and polar magnetic vortices are integral components of the mechanism that maintains the bio-informational equilibrium of Earth's biosphere.

In the absence of a coherent heliosphere or a nitrogen-rich atmospheric upper layer, Earth would be exposed to chaotic informational interferences originating from other stellar systems, with destructive potential for the logical architecture of biological DNA. This framework can explain:

- The rise of spontaneous genetic mutations without known teratogenic factors;
- The emergence of congenital tumors and untreatable primitive cancers;
- Endocrine and neurological disorders with no apparent local cause.

Within this context, a transition from the current mechanistic paradigm to an **informational-subquantum model** is necessary—where all fundamental interactions are understood as expressions of a resonant logical code, and the biosphere is a coherent extension of the solar logical core.

Helium-4, produced in the stratospheric informational spallation processes and carried toward the edges of the heliosphere, acts as a passive *kurtbit*, an oscillatory insulator designed to block the transmission of foreign informational noise from beyond the solar system. This outlines a concentric architecture of coherence:

- the solar core (emitter of the primary logical code),
- the heliosphere (antiphase filter of informational noise),
- Earth's atmosphere (logical modulator through nitrogen activation),
- the biosphere (receiver/transformer of the decoded logic).

The absence or dysfunction of any of these components can trigger **informational incoherence phenomena** with direct consequences on the functions of life and the stability of the planetary ecosystem.

Consequently, **21st-century biology** must evolve into a branch of oscillatory subquantum physics, and medicine must become a direct application of logical-resonant control over fundamental informational fluxes. Only through this approach can we prevent—or even reverse—deep pathologies that, until now, lacked clear causation.

Iată o listă concisă de **referințe bibliografice** pentru articolul în limba engleză, care pot fi citate direct în text și sunt potrivite pentru o lucrare publicată într-un jurnal academic:

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