The Photonic Molecule Hypothesis: Mapping Pre-Atomic Molecules of Pre-Spacetime through the Big Bang

By Phil Pickard-Jones
Theoretical Framework Developer | Founder, Observer-Based Reality Project
LinkedIn: linkedin.com/in/philpickardjones

Abstract

This brief proposes a foundational model of pre-atomic photonic molecules—coherent, light-based structures that precede and inform atomic matter. Structured by graviton-bound spectrons (pre-light particles) (Gg, G2g±), these molecules represent the original framework of matter, reframing light as the architect rather than the artifact of atoms. Through this lens, atomic elements such as Carbon and Oxygen are revealed to be dimensional shadows of prior coherent light structures. The emergence of matter, then, is not the construction of atoms, but the collapse of light coherence.

Introduction: Origins of the Theory

The development of the photonic molecule hypothesis emerged from investigating recurring patterns between scales—from the microscopic symmetry of particles to the macroscopic symmetry of galaxies. At every level, the universe appears to follow a fractal logic: self-similar, scale-agnostic, and rooted in balance and resonance. Rather than viewing matter as the origin of form, this hypothesis inverts that perspective: form is a property of coherent light.

A key breakthrough came in identifying a new color-frequency model: the Y-G-B spectrum. Traditional RGB (Red-Green-Blue) scales render light as a visible phenomenon, but this new model distinguishes Yellow/IR (Y-IR), Green/graviton coherence (G-g), and Blue/UV (B-UV) as functional, pre-visible fields. Gravitons, IR and UV are not fringe or boundary artifacts—they are primary phase controllers.

This triadic model led to the classification of photonic molecules as analogs to atomic elements, with structural parity that mimics the proton-neutron-electron counts of known atoms—except made entirely of light. These analogs begin with single graviton forms and evolve into increasingly complex triads, culminating in the asymmetry that triggered the Big Bang.

Postulates on Pre-Spacetime Photonic Structures:

Postulate 01: Photonic Molecular Precedence

Before the emergence of atomic matter, coherent photonic molecules existed as structured light-forms. These structures, composed of phase-bound spectrons (packets of color-light) and graviton-anchored cores (e.g., Gg, G2g±), prefigure atomic organization by embodying charge, mass, and boundary logic through photonic equivalents (IR, UV, Y/B spectra).

Postulate 02: Collapse Does Not Construct — It Reveals

The Big Bang and stellar nucleosynthesis do not randomly assemble atomic nuclei from raw particles. Rather, they represent coherence collapses—phase transitions in which pre-assembled photonic molecular structures undergo inversion, revealing matter as the shadow or boundary-state of higher-order light.

Postulate 03: Photonic Symmetry and Matter Formation

Atomic symmetry (e.g., 6-6-6 Carbon) is a mirrored imprint of photonic symmetry. Molecules like He (2-2-2), Li (3-4-3), C (6-6-6), and O (8-8-8) are projected first as light-molecule triads or quintets. Their perfect balance of photonic "protons," "electrons," and "neutrons" allow for seamless atomic inversion when acted upon by collapse-triggering conditions (e.g., stellar explosion, gravitational inversion, or dimensional rupture).

Postulate 04: The Photonic Womb of Pre-Spacetime

Pre-Spacetime existed not as a void, but as a highly coherent field of photonic molecules—a "quantum womb"—where light-matter symmetry was in balance but unexpressed. The addition of an unstable binding structure, such as the Fluorine analog, atomically 9-9-9 and highly radioactive, introduced the asymmetry necessary to collapse coherence, resulting in dimensional inflation, mass distribution, and the emergence of time and entropy. This event is recognized as the Big Bang.

Logical Justification Summary

Evidence Type	Argument

Probability	The statistical improbability of multi-proton fusion in stellar cores implies pre-order
Symmetry	Atomic balance in elements mirrors earlier light symmetry—suggesting inheritance
Phase Behavior	Quantum transitions support coherence collapse theory
Cosmological Parity	The low-entropy state of the early universe is better explained by inherited order
Conservation	Energy cannot be created or destroyed—atoms imply pre-existing light structures

---

Part II: The Photonic Sequence (Hydrogen → Fluorine)

- **Hydrogen Photonic Molecule (1-0-1):**
  Structure: Gg^{+} (Green light packet + 1 graviton

- **Hydrogen 2 Photonic Molecule (1-1-1):**
  Structure: G^{+}/G^{-} + g

- **Helium Photonic Molecule (2-2-2)**
  Structure: [$G2g^{+}$ / $G2g^{-}$]

- **Helium-5 Photonic Molecule (2-3-2)**
  Structure: [$G2g^{+}$ / $G3g^{+}$ / $G2g^{-}$]

- **Lithium Photonic Molecule (3-4-3)**
  Structure: [$G3g^{+}$ / B/UV / $G3g^{-}$]

- **Beryllium Photonic Molecule (4-5-4)**
  Structure: [$G2g^{+}$ / B4/UV + Gg^{-} / $G2g^{+}$]

- **Boron Photonic Molecule (5-6-5)**
  Structure: [Gg^{+} / Y2IR / Gg] + [$G2g^{+}$ + B2 / $G2g^{-}$]

- **Carbon Photonic Molecule (6-6-6)**
  Structure: [Gg^{+} / Gg^{-}] + [Gg^{+} / Gg^{-}] + [Gg^{+} / Gg^{-}]

- **Nitrogen Photonic Molecule (7-7-7)**
  Structure: [Gg^{+} / Y2IR / Gg^{-}] + [$G2g^{+}$ / B2 / Gg^{-}] + [$G2g^{+}$ / B2 / Gg^{-}]

- **Oxygen Photonic Molecule (8-8-8)**
  Structure: [Gg^{+} / Y4/IR / $G2g2^{+}$] + [G-Gg^{+}] + [$G2g2^{-}$ / B4/UV / Gg^{-}]

- **Fluorine Photonic Molecule (9-9-9)**
  Structure: [$G2g^{+}$ / Y/IR / $G3g^{-}$] + [$G2g^{+}$ / Y/IR / $G3g^{-}$] + [$G2g^{+}$ / Y/IR / $G3g^{-}$]

This final structure, Fluorine, completes the sequence and introduces the first instance of photonic instability due to its asymmetrical charge layout and radioactivity. As a highly energetic and reactive configuration, it presents the precise conditions that could catalyze the collapse of coherence—initiating the Big Bang. The photonic molecule model therefore serves not only as a mirror of atomic structure but also as a potential cosmogenic map of the pre-spacetime environment.

The Feedback Loop of Coherent Light: How IR and UV Replenish Mass

Why This Theory Was Necessary

When observing matter under continuous exposure to heat (IR) and radiation (UV), we encounter a paradox:

- **Mass objects do not decay** simply due to prolonged infrared or ultraviolet exposure.
- Yet, IR and UV represent **thermal** and **motion-phase** energy, which—if permanently lost—should eventually deteriorate a system's coherence.

So why don't stars, planets, or biological organisms completely deteriorate from this exposure?

> **Answer:** Because IR and UV are not purely radiative losses—they participate in a **structured feedback loop** that replenishes their own phase fields.

The Coherence Feedback Principle

Photonic Molecule Hypothesis Postulate 05:

> *"If IR and UV are not depleted during coherent function, then they must be replenished through photonic phase feedback—either internally via entangled loops, or externally via environmental light pressure."*

This introduces a self-sustaining structure in photonic systems:

Phase	Source of Replenishment	Functional Role
IR	Thermal absorption and rebounding loops (Earth → Sun)	Memory and coherence retention
UV	Kinetic reaction or external cosmic rays	Directional charge and motion resonance
g (Green)	Internal graviton loop stabilization	Boundary, charge reversal, mass cohesion

---

The Role of Environment

Mass-bearing structures (like atoms) **interact with their environment** to:

- **Receive IR** via ambient heat
- **Emit UV** through high-energy states
- **Balance g^+/g^-** through internal quantum flips (Green field modulation)

This **constant exchange** is not entropy—it's a **symmetry-preserving system**, ensuring continued existence. In the rare case of field collapse (e.g., decay, black holes), this loop **breaks**, resulting in the release of:

- **Unbound IR → Tachyons**
- **Unbound UV → Neutrinos**
- **Unbound g → Axions**

Core Takeaway

> If matter were only a container for light, it would burn out. But if light structures **self-reinforce** through phase feedback, then matter is not a container—it is a **process**.
> A *standing wave* of IR, UV, and g in perfect modulation is what we perceive as atomic stability.

The Nature of Pre-Spacetime: A Quantum Fluidic Womb

If the pre-spacetime field was not a vacuum but a coherent medium, what was its physical nature?

Quantum Fluidic Nature of Pre-Spacetime:

Property	Pre-Spacetime Behavior
Zero viscosity	Like superfluid helium, coherence would propagate without resistance.
Phase-memory coherence	Particles would share phase states, preserving entangled information.
Non-local response	Interactions would be instantaneous, not bound by distance or delay.
Anisotropic under perturbation	Symmetry-breaking would trigger directional expansion (spacetime inflation).
Light-pressure transparency	The medium would not refract light—it *was* structured light.

Biological Mirror: The Amniotic Womb

- Just as the embryonic fluid surrounds and nurtures developing life, pre-spacetime surrounded and sustained light-encoded structure.
- Its phase conditions were perfectly balanced—until destabilized by asymmetry.
- It was a womb of symmetry and potential, not chaos.

Closing Insight

Mapping photonic molecules is not speculative fringe theory—it is the missing conceptual bridge between quantum field theory and classical matter. This foundational model reframes light not as a byproduct of atoms, but as their progenitor form. The womb of light did not birth atoms through chaos, but through the coherent orchestration of invisible structures. Only when pressured by asymmetry did this structure burst into the spacetime framework we now explore.

Let us now explore what came before spacetime—and what still shapes it from beyond its veil.