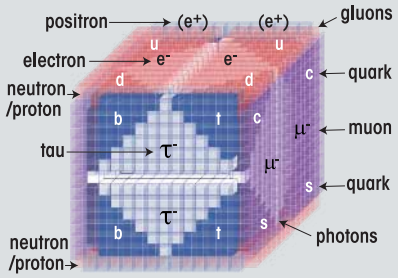
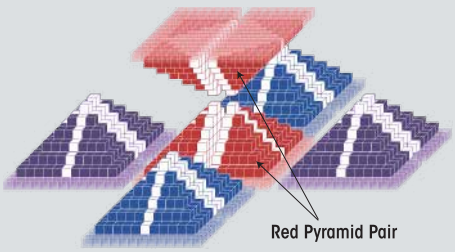
THE STANDARD PERIODIC TABLE

THE ATOM CUBE



OPENED CUBE



The Atom Cube

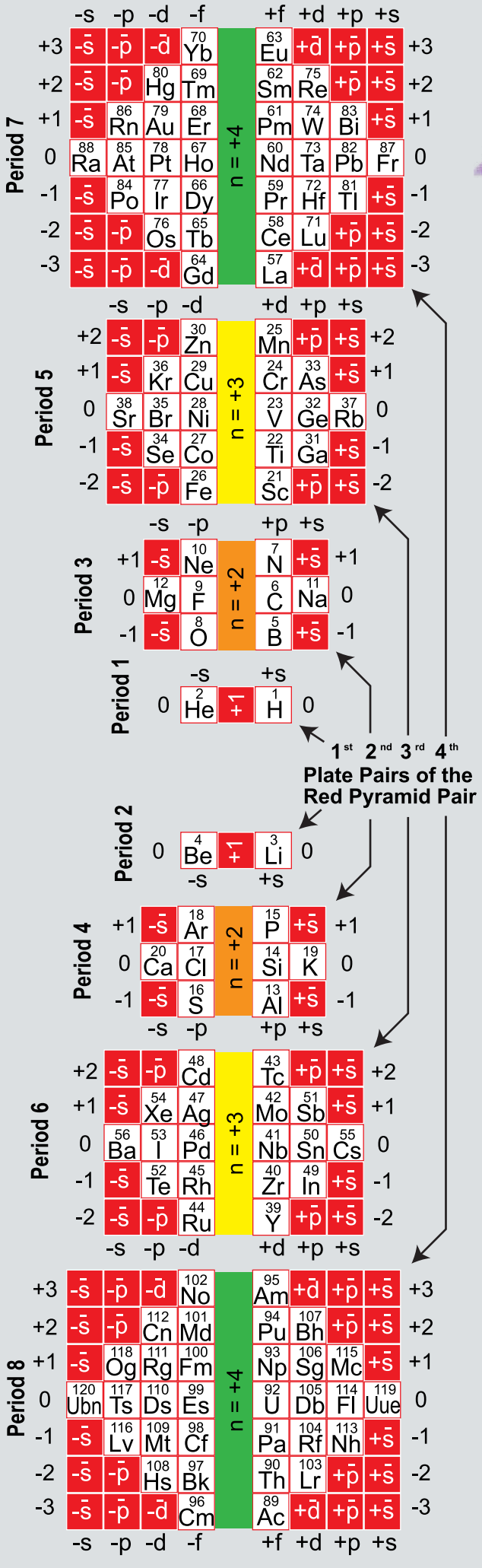
The Atom Cube is a geometric representation of the particles within the Standard Model of Elementary Particles. It consists of three orthogonal pyramid pairs – a red, a purple and a blue pair.
Specifically, the bb-parts (white) of the red pyramid pair (shown on the right) represent electrons, the ab/ba-parts (red) represent quarks, and the aa-parts (not shown) represent positrons.
The virtual parts – the core, six clefts and eight chains – of the Cube represent bosons.

The Standard Periodic Table

The Standard Periodic Table depicted here shows the spread-out plate pairs of the red pyramid pair from the Atom Cube. Only four plate pairs of six are shown. The plate pairs represent the periods of the periodic table.
In this configuration, the 120 electron-type elements in the small cubes are positioned according to their four coordinates. (See the PSI system on the far right.)
The rainbow-coloured clefts between the plates represent individual photons.

The Periodic Table Match

The periods of the traditional periodic tables match the pyramid plate pairs of the Standard Periodic Table, as shown. A major difference between the two tables is the offset between the p-, d-, f-orbitals and the s-orbitals of each period. This offset agrees with the Left-Step (Charles Janet) version of the periodic table, which is more fundamental.



The Pattern State Identity (PSI) System

Each small cube within the Atom Cube is identified by a four-dimensional coordinate vector, **[c, n, s, m],** where the variables (numbers) represent quantum-like properties, i.e.:
c: The colour of the pyramid.
n: The plate of the pyramid.
s: The shape of the orbital, where the mathematical sign indicates the particle's spin.
m: The deviation from the pyramid plate's median.

The colour variable **c** also distinguishes between the individual pyramids of a pyramid pair; for example, the values **r̄** (antired) and **r** (red) apply to the red pyramid pair.

Quantum Numbers

Quantum numbers are a set of values that describe the unique quantum state of a particle.
The four numbers typically used are energy *n*, shape *l*, orientation *m* and spin *s*.
The PSI system expands the number of quantum numbers by introducing a colour variable **c**, and subsequently contracts them by combining the orbital shape **l** and spin **s** into a unified variable **s** used for both. For example:
-s (-s,-p,-d,-f), **+s** (+f,+d,+p,+s).

Muon and Tau Standard Periodic Tables

The Atom Cube represents the muons and taus in the purple and blue pyramid pairs in addition to the electrons in the red pyramid pair.
Consequently, the Atom Cube contains three versions of the standard periodic table.

Website: thepatternscience.com
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