

Paradigm Shifts Happen Every 80 Years

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Paradigm shifts happen every 80 years as I realized in 1989. As you can see from the chart in Figure 1, there is a clear 80-year pattern for the shifts of paradigms of physics. The concept of physics paradigm shifts stems in part from Thomas Kuhn. Einstein wrote similar ideas. First, revolutionary scientists introduce the new paradigms resolving the anomalies of their “crisis period.” Then, the second generation’s theorists help develop the theories of the paradigm. Then, experimenters in the third generation find the important anomalies of the paradigm. This three step process requires 3 generations or about 80 years to operate. This article will help people to understand the historical pattern, and the past, present and possible future development of the plasmoid paradigm.

A plasmoid is a configuration of matter and energy that wasn’t known to exist until 1992. Bostick and Shoulders studied microscopic plasmoids before this, but only after 1992 were their characteristics fundamentally known. Plasmoid research has been progressing since the 1950s. In 1986, Nobelist Richard Feynman wrote Shoulders that the micrometer-sized objects of 10^{11} (10 to the 11th) electrons that Shoulders researched existed but broke basic principles of quantum mechanics.

In 1992, I studied Takaaki Matsumoto’s research and ball lightning (BL) literature. When he first announced finding microscopic ring marks in a note in *Fusion Technology*, it was clear to me that his electrolysis cell was producing micro BL that left the voids, pits, and transmuted atoms in the palladium electrode. In early 1992, I wrote Matsumoto and Shoulders about these ideas. Matsumoto quickly accepted this hypothesis. Shoulders did also, but maybe he understood Matsumoto’s research independently of me. Matsumoto’s experiments showed the mbls caused heavy element transmutation.

It was clear to me in 1992 that atoms can be in a state very different than gas, liquid, matter, and plasma. People studied plasmoids before this, but only after 1992 were their characteristics understood fundamentally. I call this the 5th state of matter or the “plasmoid state.” By about 1996, by the work of Dash and Miguet, there was clear evidence that the 5th state of matter can exist stationary for long periods of time. Matsumoto’s articles helped Urutskoev and other other Russians to understand the nature of the MBL that the Russians call “strange radiation.” The Russians present research results at the RCCNT&BL conferences.

See Ref. 1 for more information about this theory.[1] Each of the first 6 paradigms shown in the chart were developed in 3 stages. The 7th paradigm started in 1992. The theory about paradigm shifts is useful for understanding why the Kondratieff Wave cycle happens in economies. The theory was developed in 1989 and correctly predicted the timing of the crash in 2008 and this depressionary era. For more info: scientificrevolutions.com

[1] E. Lewis, “The Paradigm Shift Cycle as the Cause of the Kondratieff Wave,” *Kondratieff Waves*, pp. 39-63, (2022)



