Possibility of tachyon monopoles detected in photographic emulsions

#Keith A. Fredericks

Restframe Labs, USA, keith@restframe.com

Low-energy nuclear reaction experiments using photographic emulsions, including those by Urutskoev, *et al.* and Ivoilov, have shown unique particle tracks. Analysis of a sample population of these types of tracks suggests detection of magnetically charged particles with faster-than-light velocities. Particle kinetic energy was found from energy deposition and momentum was estimated from track curvature in magnetic fields. Measured values were plotted on a kinetic energy versus momentum graph and were found to fall in the $v > c$ region. Track curvature was found to be parabolic, which is a signature for monopoles. Using the classical theory of tachyons, the plane of parabolic curvature suggests electrically charged tachyons detected as slower-than-light monopoles. Particle mass was computed, but is inconclusive. Further study is suggested to broaden this search.

![Kinetic Energy vs. Momentum](image1)

Fig. 1. Measured values for momentum and kinetic energy are clustered in the faster-than-light ($v > c$) area of the graph with a mass contour line at the peak mass value of $5.4 \times 10^{13}$ eV/c² and a velocity contour line at $\beta' = 2.12 \times 10^6$.

![Experimental setup](image2)

Fig 2. Experimental setup with applied magnetic field perpendicular to photographic emulsion.