## Apparent Mass Changes and Temporary Mass Structures Induced by LED Light, and Behavior of "Negative Subtle Matter"

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What is the nature of "Negative Subtle Matter\*?" Tests were undertaken to explore my hypothesis that mass is related to amount of structured loitering of energy, increased by structural associations and decreased by dissociations. Mass changes were observed upon exposure to LED light in a system closed at and above the atomic level. Pairs of sealed half-pint jars with about 400 mg of liquid were placed on a small balance with an LED light source at adjustable distances beyond one end of the balance. After balancing, paper-weights (pw) about 144 mg were placed within regular time periods (trials) on the jar nearest the light until it dipped. In addition, scale weights of jars in grams were taken after each test.

## Selected Results:

- 1)Both mass-gain and mass-loss events sometimes occurred in all test liquid and air control jars.
- 2)Mass-change (mg) of tap water varied by duration of preceding dark period. Net gain peaked after about 12 hours in darkness.
- 3)Number of mass-gain events in tap water appeared to compensate for increasing mass-loss events, tested after 12 hours, 6.5 days and 8 days in dark.
- 4)Mass-loss (g) in distilled water over 6-month test period for all jar contents and conditions decreased much less than regularly tested standard conditions demonstrating repeated compensation/recovery of mass.
- 5)Mass-loss (mg) in 5% acetic acid increased in immediate post-exposure to night sky testing. 6)Empty jars (air) over a sequence of 10 mass-change (mg) tests behaved within the general ranges of water- and acetic acid- filled jars, despite being about half their masses. This suggests mass-change is influenced by the jars themselves or energy interactions related to jar volume, in the empty space between atoms. Is this dark matter dark energy conversion?

\*Volkamer, K. (2017). <u>Discovery of Subtle Matter: A Short Introduction</u>, Brosowski Publishing. Linked-In, Ken Shiovitz, Show All Activity, Posts, January to Present: Theoretical Development and Poetry