Seven theses about photons and the perfect interference

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By the experiments published on Vixra in the meantime, seven theses about photons resulted. These theses are listed in a table. Together with the opinion of the mainstream and references to my associated experiments. Attached is another experiment which has not been published yet.

I. Introduction

Over the past six months, I have published on Vixra a series of experiments with photons, almost all of them based on the historic Jamin interferometer.

The suggestions also come from the works of theorists who master the state of physics and even want to improve it.

I was puzzled by the fact that everyone knows exactly how to use interferometers. I am not that smart. I learn new things about interferometers and their applications every day.

The experimental results were also confusing at first. In the course of the months, however, certain ideas emerged about how photons "tick".

Some of my theses are not covered by the mainstream. Others are undisputed but rarely propagated.

It is time to write down my theses about photons. Supplemented with my experiments and remarks, which led me to the theses. Attached is a unpublished experiment.

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II. Seven theses about photons

Thesis	Mainstream	Proof of thesis	Note
The mass of photons is measurable	Yes, but difficult	„Measurement of Picoforces from Light“ https://vixra.org/abs/2110.0011	Linear and sensitive measurement with cheap microphone
Energy is hidden in the destructive interference	No. Where you measure nothing, there is nothing.	Hide energy... „Hidden Energy in the Destructive Interference“ https://vixra.org/abs/2109.0196	... and recover: „Hidden Transfer of Energy or Information“ https://vixra.org/abs/2111.0104
There is a perfect destructive interference	No. Only theoretically	See Chapter III: "The perfect destructive interference"	Simple experiment with laser pointer and shaving mirror
Photons can influence each other	No. Photons react only to gravity or matter	See chapter IV: "The sharply defined perfect destructive interference"	Discussion
You can build a one-way light speed meter	Doubts.	„One-Way-Light Speed Measurement“ https://vixra.org/abs/2112.0112	
"c" on earth is anisotropic	No. "c" is isotropic	„One-Way-Light Speed Measurement“ https://vixra.org/abs/2112.0112	Suspicion of laser gyro principle of action by earth rotation
There is (something similar to) an ether	No.	„A Message from the Ether“ https://vixra.org/abs/2201.0070	Suspicion of interference disturbances by muons from solar wind

III. Experiment: The perfect destructive interference

In destructive interference, light is superimposed with light and darkness is created. But according to the mainstream, this can never be done perfectly. To create perfect destructive interference, all you need is a laser pointer and a shaving mirror.

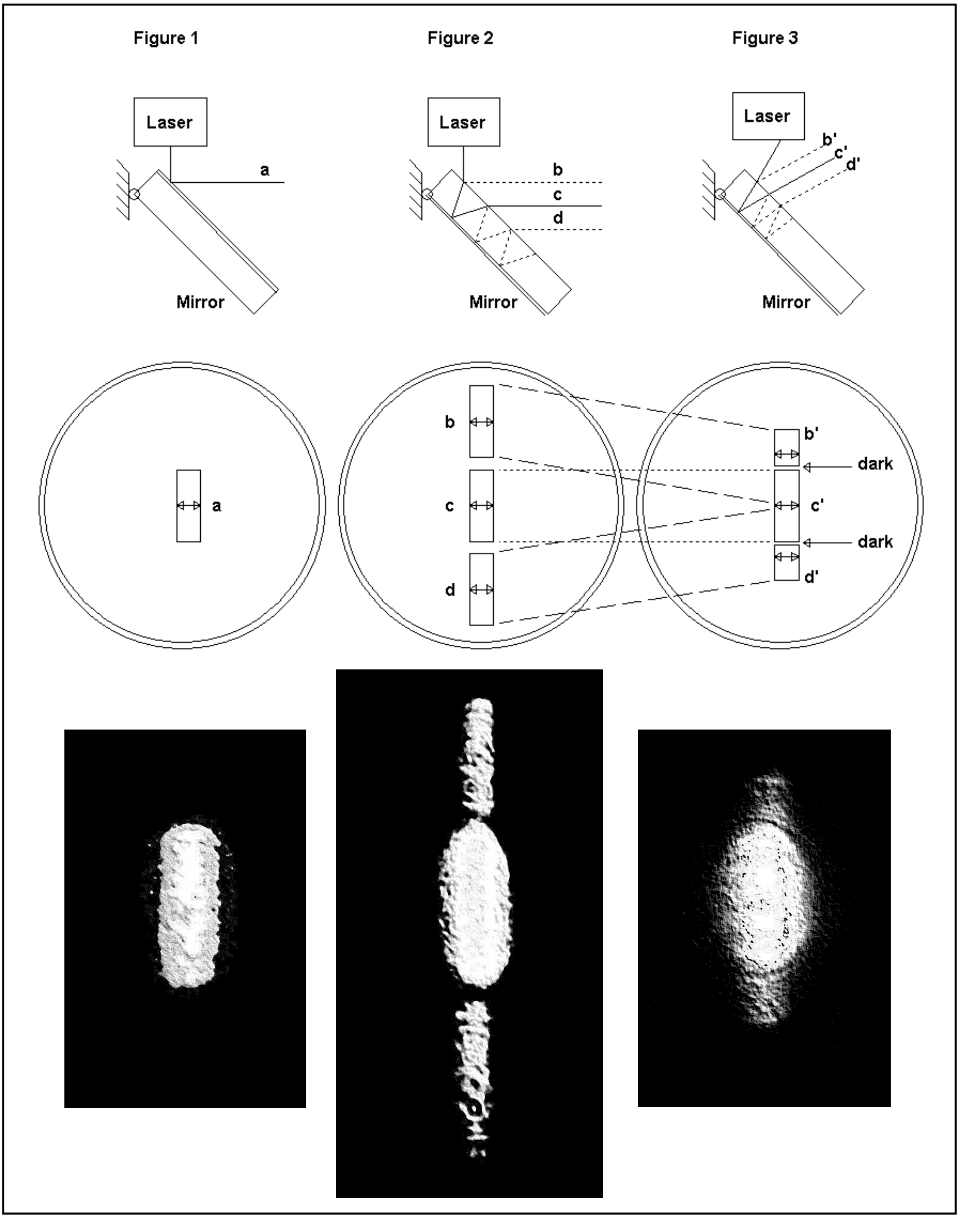

Figure 1: A laser beam (height ~5mm, width ~1.5mm, polarization horizontal) is reflected at the silver foil of the mirror back. A mirror image of the laser beam profile is created.

Figure 2: The 4 mm thick mirror glass (observe coherence length) points to the laser. Many beams are generated. Beam b is reflected at the glass. c at the silver foil, d once at the glass and twice at the silver foil. Beam c is brightest. The polarization of all three beams is the same. The three beams are completely separated at 45° laser entrance angle.

Figure 3: Steeper irradiation of the laser leads to overlapping of the beams. This causes the light to interfere. The c' beam shines brighter in some places. In the two zones marked "dark", perfect destructive interference occurs. In these zones, there are exactly as many c' photons as b' or d' photons, whose phases are rotated by 180°. The inclination of the mirror is largely irrelevant. The dark zones at the upper and lower edge of the c'-beam are always created automatically.

IV. Discussion: The sharply defined perfect destructive interference

The sharp demarcation of the dark zones is striking. For explanation I suggest:

Photons are ultrahigh-frequency oscillators whose alternating electromagnetic fields swell and decay and sum up to zero. If a second photon of the same kind flies parallel to the first photon, static forces act between the photons flying side by side at the same speed. These static forces can interact in spite of the speed of light and direct the photon fields in opposite directions.

The photons behave like two bar magnets, which align and connect themselves abruptly in opposite directions when approaching each other. Thereby, a state of lowest possible magnetic force measurable from outside is assumed, although the two bar magnets have lost nothing of their force. The two magnets interfere destructively.

This destructive interference ends as soon as the phase angle difference deviates too much from 180° or the distance between the photons becomes too large. So there is a phase trapping range within which a perfect destructive interference can hold.