

How do asymmetrical capacitors work?

The high voltage was provided to the capacitors by the high-voltage power supply ( see Fig. 1 for a scheme). When such a power supply was switched on, the two asymmetrical capacitors began to rotate and accelerate quickly up to high speeds.

How much force does a asymmetrical capacitor have?

Our experimental measurements indicated the presence of a small, but persistent force in the scale of mgf, mainly for high values of the high voltage applied such as 6 kV on the asymmetrical capacitor, with maximum value for the force 278.83 mgf, for the maximum voltage applied (up to 6 kV) on the device sample.

Can asymmetrical capacitors be used as lifters?

Some different independent experiments [7] performed with asymmetrical capacitors as lifters using air as dielectric seem to indicate that such an effect can be possible, that is, the devices present anomalous variations of their weights or even levitation when they are subjected to the regime of high voltage applied.

What are Asymmetrical Capacitor Thrusters?

These asymmetric capacitors became known as Asymmetrical Capacitor Thrusters (ACT). The Biefeld-Brown effect can be observed in ionocrafts and lifters, which utilize the effect to produce thrust in the air without requiring any combustion or moving parts.

Do asymmetric capacitors exert a net force?

C. Fazi (Army Research Laboratory (ARL)) and T. Bahder (ARL) have fabricated three simple asymmetric capacitors, using the designs reported on the Internet. In all three cases, we have verified that a net force is exerted on the capacitors when a high D. C. voltage is applied to the electrodes.

Do asymmetric capacitors work in high electric potentials?

In this study, the authors analysed an anomalous force observed in asymmetric capacitors, working in high electric potentials. From a lot of experimental measurements performed in their asymmetric capacitor, they detected real variations of the device inertia.

By a design of the structure of capacitors, the performance enhancement in ASC can be expected by the synergistic effect of non-faradaic capacitance and pseudocapacitance, which is confirmed with three different measurements: cyclic voltammetry (CV) and electrochemical impedance spectroscopy (EIS) determine the pseudocapacitive ...

When a high voltage (~30 kV) is applied to a capacitor whose electrodes have different physical dimensions, the capacitor experiences a net force toward the smaller electrode (Biefeld-Brown ...

We have verified this effect by building four capacitors of different shapes. The effect may have applications to vehicle propulsion and dielectric pumps. ... The order of magnitude of the net force on the asymmetric capacitor is estimated assuming two different mechanisms of charge conduction between its electrodes: ballistic ionic wind and ...

Testing the electrokinetic force over an asymmetrical capacitor fed up with about 70kV DC from a Cockcroft-Walton voltage multiplier. Although the dielectric ...

Quantised inertia predicts the behaviour of galaxies and wide binaries without dark matter as an "asymmetric Casimir effect". It also predicts that propellantless thrust by highly accelerating ...

When a high voltage is applied on an asymmetric capacitor, it experiences a force acting toward its thinner electrode. This effect is called Brown-Biefeld effect (BB), after its ...

Force on an Asymmetric Capacitor By Thomas B. Bahder and Christian Fazi ARL-TR-3005 June 2003 Best Available Copy Approved for public release; distribution unlimited. ... We have verified this effect by building four capacitors of different shapes. The effect may have applications to vehicle propulsion and dielectric pumps. We review the ...

1 Introduction. In 1928, it was described that an anomaly concerning to weight measurements occurred in experiments involving parallel plate capacitor devices when ...

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Asymmetrical Capacitor Thrusters have been proposed as a source of propulsion. For over eighty years, it has been known that a thrust results when a high voltage is placed ...

For a symmetric capacitor, i.e., where the upper and lower electrodes are of equal size, the edge effect is very weak. However, for an asymmetric capacitor, the edge effect ...

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