The role of Ionic Wind for the Electrostatic Rotor to convert Vacuum Energy into Mechanical Energy

by Claus W. Turtur Wolfenbüttel, 16. Sept. 2008

The original of this publication is to be found at PHILICA.COM, Observation no. 49
This version of the paper here displays additional graphics to illustrate the setup.
For further information please see http://public.rz.fh-wolfenbuettel.de/%7Eturtur/physik/

Abtract:

It has been discussed several times, whether ionic wind might take any influence onto the experimental verification of the conversion of vacuum-energy into mechanical energy presented in [1]. A first demonstration, that such electrohydrodynamic effects do not drive the rotor converting energy is given in [2]. Here is the presentation of further investigations to exclude the relevancy of ionic wind for this experiment.

Article body:

A possible method to convert vacuum energy into classical mechanical energy (as described in [1]) consists of special rotor driven by an electrostatic field (as shown in Fig.1). The driving force is the attractive electrostatic force between the rotor blades and the field source, which is mounted above the rotor blades.

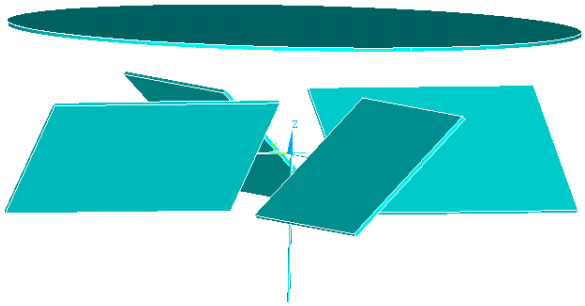

Fig. 1:
Setup of a rotor to convert vacuum energy into mechanical energy. The attractive force between the rotor blades and the field source makes the rotor spin clockwise.

The question about the influence of ionic wind was posed several times, because of the risk, that the relatively high field strength at the edges of the rotor blades might cause ionization of the molecules of the circumjacent gas. In this case, the critical problem would be the recoil of the molecules which might transmit some momentum onto the rotor blades, stopping them or perhaps driving them to spin.

This type of force has to be excluded for sure, because the rotor shall be driven by vacuum energy !

A first exclusion of such a driving force was given in [2], where the determination of the electric power responsible for the ionization of molecules was performed – with the result, that the mechanical power driving the rotor is larger than the electrical power. This means, that the electrical ionization of the molecules can not be the driving force of the rotor.

A second exclusion of ionization as a driving force is demonstrated here:

The recoil of ionized gas molecules follows the gradient of the electrostatic field, and thus the direction of the edges of the rotor blades. In the setup of Fig.1, the recoil of the ions would make the rotor rotate into the same direction as the attractive forces between the rotor blades and the field source, this is clockwise. In the setup of Fig.2, the edges of the rotor blades are bent to the opposite direction, so that the recoil of the ions would accelerate the rotor into opposite direction, i.e. to counter clockwise rotation. But such rotation was not observed in the experiment. In the test, the setup of Fig.1 and Fig.2 did identically the same rotation (with the same direction and the same angular velocity),

indicating that the gas molecules (respectively the ionic wind) do not influence the rotation at all. This means that there is no momentum transfer by ionic wind.

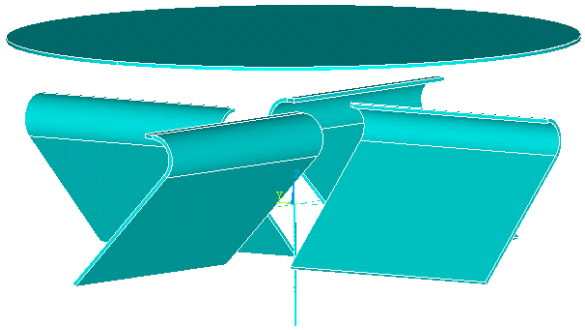

Fig. 2:
Setup of a rotor to convert vacuum energy into mechanical energy. Ionic wind would accelerate the rotor counter clockwise, the conversion of vacuum energy accelerates rotor clockwise. The clockwise rotation is observed in reality.

Observation circumstances:

Discussions about possible ionic wind in the experiment activated the author to give an additional demonstration that such electrohydrodynamic effects are not important here.

Perspective to the future:

An additional prove against the influence of ionic wind onto the rotation converting vacuum energy can be achieved by bringing the experiment into the vacuum, because there are no gas molecules, which could be ionised. This should be subject of further work.

References:

1. Turtur, C.W. (2. April 2008). Conversion of Vacuum-energy into mechanical energy: Successful experimental Verification. PHILICA.COM, Article no.124
2. Turtur, C.W. (5. June 2008). Conversion of vacuum energy into mechanical energy. The General Science Journal (ISSN 1916-5382), http://wbabin.net/physics/turtur.pdf

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