



ESA Spark Funding Germany

Space Technology

Electric space propulsion system.

In the 1960s, the radio-frequency ion thruster was invented in Giessen (Germany). As part of this electric space propulsion system a new concept for a radio-frequency (RF) generator has been developed.

Non-Space Application

Sources for materials processing to produce nanotechnologies.

Such RF generators are used to power high-frequency ion sources for materials processing to produce nanotechnologies; e.g., to coat eyeglass lenses, manufacture mirrors for lasers, to polish silicon wafers or to alter material properties by atom implantation.

Benefits

The new generators are smaller, more energy efficient, have faster control times and can be used in vacuum.



Vacuum chamber for materials processing

high-frequency ion source

radio-frequency generator

Contractor: **SRD Electronics UG**

Space Technology Provider/Project Partner:

Technische Hochschule Mittelhessen University of Applied Sciences Mittelhessen

