RF resonant cavity thruster

The thrust produced by the RF resonant cavity thruster is due to a specifig arrangement of magnetic and electric alternating fields.

The basics of this theory relies on charged particles near (around) the drive, an thus does not believe in 'reactionless' behaviour but gives an explanation that only requires free charged particles near the thruster that get accelerated.

The mode of operation is described as follows:

1. alternating em-fields make charged particles to swing
2. lighter particles like electrons swing hat higher veolicities than heavier particles like protons
3. another alternating magnetic field (at the same frequency) results in a lorentz-force that always accelerates the swinging particles into the same direction
4. as heavier particles swing at lower velocities, the overall force / acceleration into one direction is greater than the other as the lorentz-force depends on velocity

The basic principle behind the EM-Drive is possibly explained here: /theory/acceleration_of_charged_particles_in_alternating_fields.html