

Description of Additional Supplementary Files

Supplementary Movie 1. PIC-calculated evolution of the electric field in the M-shaped resonator.

Supplementary Movie 2. PIC-calculated evolution of the electron in the M-shaped resonator superimposed over the electric field (the brown contour corresponds to $E = 2.6 \text{ V nm}^{-1}$).

Supplementary Movie 3. PIC-calculated evolution of the electron temperature in the M-shaped resonator.

Supplementary Movie 4. PIC-calculated evolution of the ion temperature in the M-shaped resonator.

Supplementary Movie 5. PIC-calculated evolution of ion density in the resonator, x-y middle section.

Supplementary Movie 6. PIC-calculated evolution of ion density in the resonator, y-z middle section.