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Control of plasma parameters and negative ion density with modified capacitive discharge

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We proposed a new type of capacitive plasma source with a meshgrid to solve the problem of low pressure discharge, just one electron temperature is possible at given electron density. Various electron temperatures are possible at one electron density, while varying the grid bias and the discharge current of the discharge. We can control the electron density and electron temperature from $4*10^{8}$ cm^{-3} to $1*10^{10}$ cm^{-3} and from 1 eV to 4 eV. This control mechanism give a possible key to control a radical density and the ratio of each radicals, directly related to etch rate and etch selectivity