

**MONPS30**

**COOMPACT SURFACE PLASMA H- ION SOURCE WITH  
GEOMETRICAL FOCUSING**

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Factors limiting operating lifetime of a Compact Surface Plasma Sources (CSPS) are analyzed and possible treatments for lifetime enhancement are considered. Noiseless discharges with lower gas and cesium densities are produced in experiments with modified discharge cell. With this discharge cells it is possible to increase emission aperture and extract a necessary beam from the discharge with lower current with corresponding increase source lifetime. A design of an advanced CSPS with geometrical focusing of H- flux is presented.