

ABSTRACT

[0036] The invention provides a cathode system for an Electron Ionization (EI) source comprising a filament and current supply posts, the current supply posts dividing the filament into segments and each current supply post supplying or returning the current for at least two segments of the filament. Each filament segment is connected, for instance by spot welding, to the supply posts delivering the heating current. The filament segments may be arranged in a row, or substantially parallel to each other. Filament segments arranged in a row may form a closed loop, for instance, a ring. Other embodiments encompass the filament shape of a helical coil.

Figure 5