

CLAIMS

1. An ion implanter comprising an enclosure (ENV) having arranged therein a substrate carrier (PPS) connected to a substrate power supply (ALT) via a high voltage electrical passage (PET), the enclosure (ENV) being provided with pump means (PP, PS), said enclosure (ENV) also having at least two cylindrical source bodies (CS1, CS2, CS3, CS4) free from any obstacle and arranged facing said substrate carrier (PPS); wherein the ion implanter ~~being characterized in that it includes~~ at least one confinement coil (BCI1-BCS1, BCI2-BCS2) per source body (CS1, CS2, CS3, CS4).
2. An ion implanter according to claim 1, ~~characterized in that~~ wherein each of said source bodies (CS1, CS2, CS3, CS4) is provided with an external radiofrequency antenna (ANT1, ANT2, ANT3, ANT4).
3. An ion implanter according to claim 1 or claim 2, ~~characterized in that it~~ wherein the ion implanter includes a common radiofrequency generator (RF) for all of said antennas (ANT1, ANT2, ANT3, ANT4).
4. An ion implanter according to claim 3, ~~characterized in that it~~ wherein the ion implanter includes a single tuning box (BA) arranged between said radiofrequency generator (RF) and said antennas (ANT1, ANT2, ANT3, ANT4).
5. An ion implanter according to claim 3, ~~characterized in that it~~ wherein the ion implanter includes, downstream from said radiofrequency generator (RF), a tuning box (BA) followed by a separator (SEP).
6. An ion implanter according to claim 3, ~~characterized in that it~~ wherein the ion implanter includes, downstream from said radiofrequency generator (RF), a separator

(SEP) followed by a number of tuning boxes (BA1, BA2, BA3, BA4) identical to the number of source bodies (CS1, CS2, CS3, CS4).