# Neon

Update : january 15th 2010

| Radioactive Beam (halflife) | Charge State | $V_{source}$ (KV) | Intensity (pps) | | Min Energy (MeV/nucleon) | Max Energy (MeV/nucleon) | Primary Beam | Primary Beam Power on ECS Target (kW) | Primary Beam Energy (MeV/nucleon) |
|---|---|---|---|---|---|---|---|---|---|
| | | | LEB | Target* | | | | | |
| $^{17}$Ne (0.11s) | +2 | 16 | 7 $10^4$ [1] | 6 $10^3$ [1] | 2 | 2 | $^{20}$Ne | 1.3 | 95 |
| | +2 | | 1.4 $10^5$ | 2.8 $10^4$ | 1.7 | 3.7 | | 1.0 | |
| | +3 | 20 | 1.2 $10^5$ | 4 $10^4$ | 4.0 | 8.2 | | 1.4 | |
| $^{18}$Ne (1.7s) | +2 | 15 | 1.3 $10^7$ | 2 $10^6$ | 1.8 | 3.4 | $^{20}$Ne | 1.3 | 95 |
| | +2 | | 1.7 $10^7$ | 3 $10^6$ | 3.3 | | | 1.0 | |
| | +4 | | 3 $10^6$ | 1 $10^6$ | 7.0 | 12.95 | | 0.3 | |
| | +5 | | 3.2 $10^6$ | 6.4 $10^5$ | 5.34 | 18 | | 1.4 | |
| $^{19}$Ne (17s) | +2 | | 1.5 $10^8$ | 3.0 $10^7$ | 1.7 | 3 | $^{20}$Ne | 1.0 | 95 |
| | +5 | | 1.8 $10^8$ | 3.7 $10^7$ | 4.8 | 17 | | 1.4 | |
| $^{23}$Ne (37s) | +3 | 22 | 7 $10^7$ | 1 $10^7$ | 2.0 | 4.5 | $^{22}$Ne | 1.3 | 80 |
| | +5 | | 5 $10^6$ | 1 $10^6$ | 3 | 11.4 | $^{36}$S | 1.4 | 77.5 |
| $^{24}$Ne (3.4min) | +5 | | | 1.4 $10^5$ | 7.92 | | $^{36}$S | 1.4 | 77.5 |
| | +5 | | $10^6$ | 2 $10^5$ | 10 | 10 | | 1.4 | 77.5 |
| $^{24}$Ne# (3.4 min) | +2 | 21 | 1 $10^6$ | 1 $10^5$ | 1.7 | 1.8 | $^{22}$Ne | 1.3 | 80 |
| $^{24}$Ne (3.4min) | 3/10+ | | 5 $10^5$ | 5 $10^4$ | 3.0 | 4.2 | $^{22}$Ne | 1.4 | 77.5 |
| | 3/10+ | | 1 $10^6$ | 1 $10^5$ | 3.0 | 4.2 | $^{26}$Mg | 1.4 | 82 |
| $^{25}$Ne (0.6s) | +4 | | 1.7 $10^5$ | 3.4 $10^4$ | 1.9 | 6.9 | $^{36}$S | 0.8 | 77.5 |
| $^{26}$Ne (0.23s) | +5 | | 1.1 $10^4$ | 3 $10^3$ | 10 | 10 | $^{36}$S | 0.8 | 77.5 |
| $^{27}$Ne (32ms) | +5 | | 5 $10^2$ | 1 $10^2$ | 2.6 | 9.3 | $^{36}$S | 0.8 | 77.5 |

*** Available intensity for the experiment.**

**# polluted by $12C^{1+}$**
**[1] Polluted by $^{17}$O (20%)**

**Color code :**
**2.8 $10^7$ = extrapolated figures from SIRA experiment from 400 W to 1.4 kW.**
**2.8 $10^7$ = measured figures with SPIRAL.**
**2.8 $10^7$ = expected figures after acceleration (not measured) with 20% transport efficiency.**