



## Application of DC Source in Heavy Ion Accelerator

Heavy ion accelerator could speed up massive heavy ion to a high speed which could even close to speed of light. High speed heavy ion accelerator forming ion cluster which could applied in heavy ion physical research. It play important role in various fields such as medical oncotherapy, test platform of semiconductor for aerospace; research and development of new material; Cultivating new species crop via induced mutation technique.



There are various kinds of magnet in heavy ion accelerator including dipolar magnet, quadrupole magnet, sextupole magnet, octupole magnet and so on. Each magnet has its own function such as bend the motional orbit of particle, make particle movement focus on the central of track, eliminate dispersion of particle movement, eliminate the Landau damping.

APM SP-1U/2U series and SP-3U/6U series are applied in an important test in a laboratory which is related to quadrupole magnet. Power supply operates in CC mode. Output current



switches between 10A and 100A. Rise time and fall time of current is 100ms which continue 30ms.

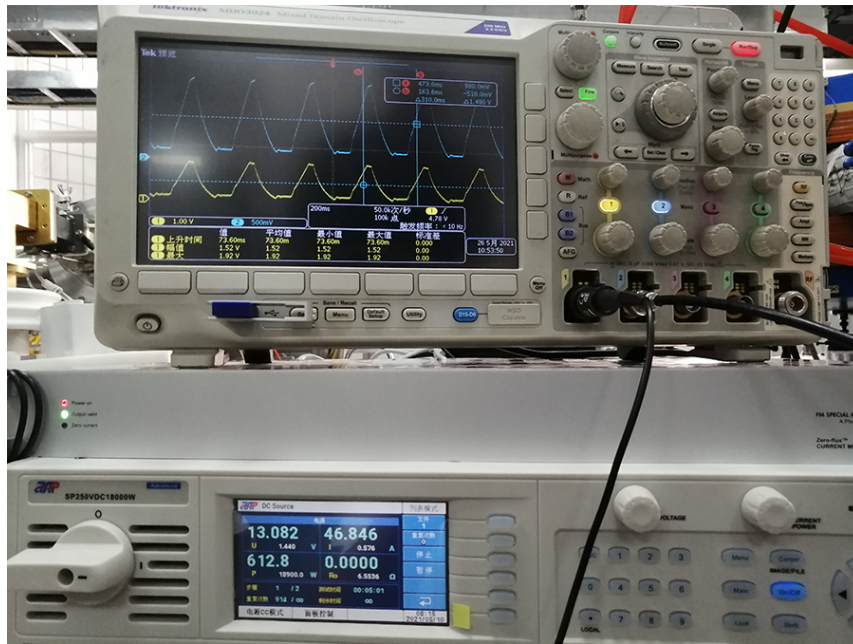


Slew rate of current is adjustable which is easier for user to use.

| APM DC Source |         |         |         |         | List        |
|---------------|---------|---------|---------|---------|-------------|
|               | List    |         |         |         | Format      |
| Step          | 1       | 2       | 3       | 4       | S-Ramp      |
| U/V           | 0.000   | 0.000   | 0.000   | 0.000   | NO.         |
| Usl/s         | 1.000   | 1.000   | 1.000   | 1.000   | 1           |
| I/A           | 195.000 | 195.000 | 195.000 | 195.000 | Step Count  |
| Isl/s         | 1.000   | 1.000   | 1.000   | 1.000   | 8           |
| P/W           |         |         |         |         | Save        |
| Ro/Ω          |         |         |         |         | Disp 1 of 2 |
| Wid/s         | 1.000   | 1.000   | 1.000   | 1.000   |             |
| Mode          | Cont    | Cont    | Cont    | Cont    |             |
| Count         | 10      | 10      | 10      | 10      |             |
| LOCAL         |         |         |         |         | 15:06       |
|               |         |         |         |         | 2021/06/23  |



Through the performance to two different series power source, the final test result meet customer requirement.



Test result is the biggest compliment to APM product. APM will keep providing user with higher performance power source in product test.