Comparison of MeV proton-irradiation facilities

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|  | Energy | Proton current | Target area | T-range | Readyness | Notes |
| FETS-HIPSTER | 3 MeV fixed: upgradable to 15-18 MeV | 6mA average (60mA pulses, 10% duty cycle) | undecided, but up to 300mm diameter | 300 – 1000C likely | Accelerator being commissioned, target area to be designed & commissioned if project approved | protons only.  |
| DCF | variable, <1 MeV – 10 MeV | 0.1mA | ~5cm diameter | Under development | Single beam now, dual beam in late 2015 | part of dual –beam facility. Can deliver any ion at micro-Amp current |
| Birminghamcyclotron | 11-39 MeV | 60 A | Several cm? | ? | Under construction | Max run time 6-10 hours – shared with isotope production. |
| Birminghamdynamitron | Up to 3MeV | 1 mA | Several cm? | ? | Under construction | Long run times? |
| UK IBC, Surrey | up to 2 MeV | 3 A (2x10^13 H/s) / 30 A | Up to ~40cm diameter | Up to 900C | Operational  |  |
| JaNNUS | up to 4 MeV (typically 2.5MeV on *Yvette* for H+) | 40 A(2.5×1014 ions/s) | ~2.5cm diameter | up to 800C | Operational | Part of triple – beam facility. |
| HZDR | up to 6 MeV | 0.001 - 100 µA | Up to 10cm diameter? | up to 800C | Operational |  |
| IMBL, Michigan | 400 kV – 3 MeV | 1 nA – 50 A | ~5cm diameter |  | late 2014. | Part of triple – beam facility.  |
| MIAMI, U. Huddersfield | 2- 100 kV | 1010 – 1014 ions/cm2/s | TEM foil |  | Operational | In-situ irradiation TEM |

For 2-3 MeV protons, damage rate in the near-surface region is ~1021 ions cm-2 for 1 dpa: i.e. ~100 Amp.s/cm2