

E12-06-107: Color Transparency

9 (10) days during commissioning

Targets:

- H 10* cm (production)
- C 6% r.l. (production)

- C 1.5% r.l. (radiative corrections checks)
- 1-foil C 0.5% r.l. (acceptance studies)
- 2 x 2-foil C (acceptance studies)
- Al (background measurement)

** will need 10 days instead of 9 to run with a 10 cm cryo*

Beam:

Current: 80 μ A

Energy: 8.8 and 11 GeV

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Kinematics: $A(e,e'p)$

Beam (GeV)	Theta (deg) HMS	P (GeV/c) HMS	Theta (deg) SHMS	P (GeV/c) SHMS
8.8	25.9	4.531	22.73	5.122
8.8	33.3	3.465	17.86	6.203
8.8	44.3	2.4	13.32	7.278
11	35	3.525	14	8.36
11	48.05	2.251	10	9.642

Lowest angle: 25.9 deg

Highest angle: 48.05 deg

Lowest p: 2.251 GeV/c

Highest p: 4.531 GeV/c

Lowest angle: 10 deg

Highest angle: 22.73 deg

Lowest p: 5.122 GeV/c

Highest p: 9.642 GeV/c

Smallest angular opening between spectrometers: 48.63 deg

Largest angular opening between spectrometers: 58.05 deg

E12-10-002: F2 at large x/E12-10-108: EMC effect 13 days during commissioning

Targets:

- H 10 cm (production)
- D 10 cm (production)
- C 1.5% r.l. (production)
- Boron 10 1.2% r.l. (production)
- Boron 11 1.2% r.l. (production)
- Beryllium 9 2% r.l. (production)

- H 4 cm (acceptance studies)
- 1-foil C 0.5% r.l. (acceptance studies)
- 2 x 2-foil C (acceptance studies)
- hole C (calibration of beam pos. on cryo target)
- 2 x Al (background measurement)

Beam:

Current: 40 μ A

Energy: 6.6 and 11 GeV

E12-10-002: F2 at large x / E12-10-108: EMC effect 13 days during commissioning

Kinematics (prod.): SHMS

Angle (deg)	P (GeV/c)	Targets
17	6.1, 4.9, 4	H, D, Al
20	5.4, 4.4, 3.5, 2.9	H, D, Al, C
25	4.4, 3.5, 2.8	H, D, Al, C
35	2.95, 2.4, 1.9, 1.55	H, D, Al, C
40	2.4, 1.9	H, D, Al, C
30	2.6, 2.9, 2.4, 2	H, D, Al, C, B10, B11, Be9 <i>preliminary</i>

Lowest angle: 17 deg
Highest angle: 40 deg
Lowest p: 1.55 GeV/c
Highest p: 6.1 GeV/c

Kinematics (prod.): HMS

Angle (deg)	P (GeV/c)	Target
17	6.8, 6, 5.5, 5, 4.5	H, D, Al
50	1.95, 1.75, 1.55, 1.4	H, D, Al

Lowest angle: 17 deg
Highest angle: 50 deg
Lowest p: 1.4 GeV/c
Highest p: 6.8 GeV/c

Smallest angular opening
between spectrometers: 67 deg
Largest angular opening
between spectrometers: 90 deg

C will run if time allows it

E12-10-002: F2 at large x

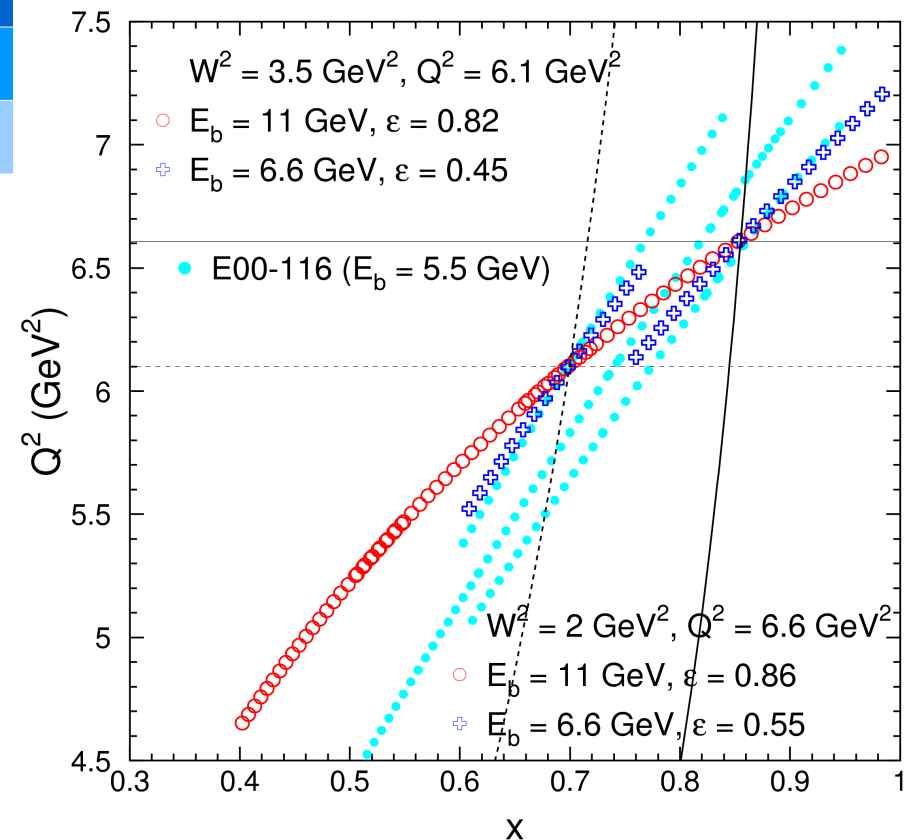
13 days during commissioning

Kinematics: R measurement at 6.6 GeV beam energy

Angle (deg)	P (GeV/c)	Target
37.1	2.49	H, D, Al
40.3	1.95	H, D, Al

Will be measured with HMS

Measurements will be combined with the 11 GeV scan at 17 deg to extract R (2 epsilon points fit) at two values of (Q2, W2)



E12-10-003: D electro-disintegration

3 days during commissioning

Targets:

- D 10 cm (production)
- H 10 cm (calibration)
- 1-foil C 0.5% r.l. (acceptance studies)
- 2 x 2-foil C (acceptance studies)
- Al (background measurement)

Beam:

Current: 80 μ A
Energy: 11 GeV

Kinematics:

Theta SHMS	P SHMS	Theta HMS	P HMS
11.68	9.322	53.47	2.305
11.68	9.322	56.62	2.220
11.68	9.322	59.61	2.121

Targets needed during commissioning

Production:

Cryo

- H 10 cm: all
- D 10 cm: all

Solid

- C 1.5% r.l.: E12-10-108, E12-06-107
- C 6% r.l.: E12-06-107
- Boron 10 1.2% r.l.: E12-10-108
- Boron 11 1.2% r.l.: E12-10-108
- Beryllium 9 2% r.l.: E12-10-108

Background/Acceptance/Calibrations:

Cryo

- H 4 cm: E12-10-002, E12-10-108

Solid

- 1-foil C 0.5% r.l.: all
- hole C: E12-10-002, E12-10-108
- 2 x 2-foil C: all
- 2 x Al

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