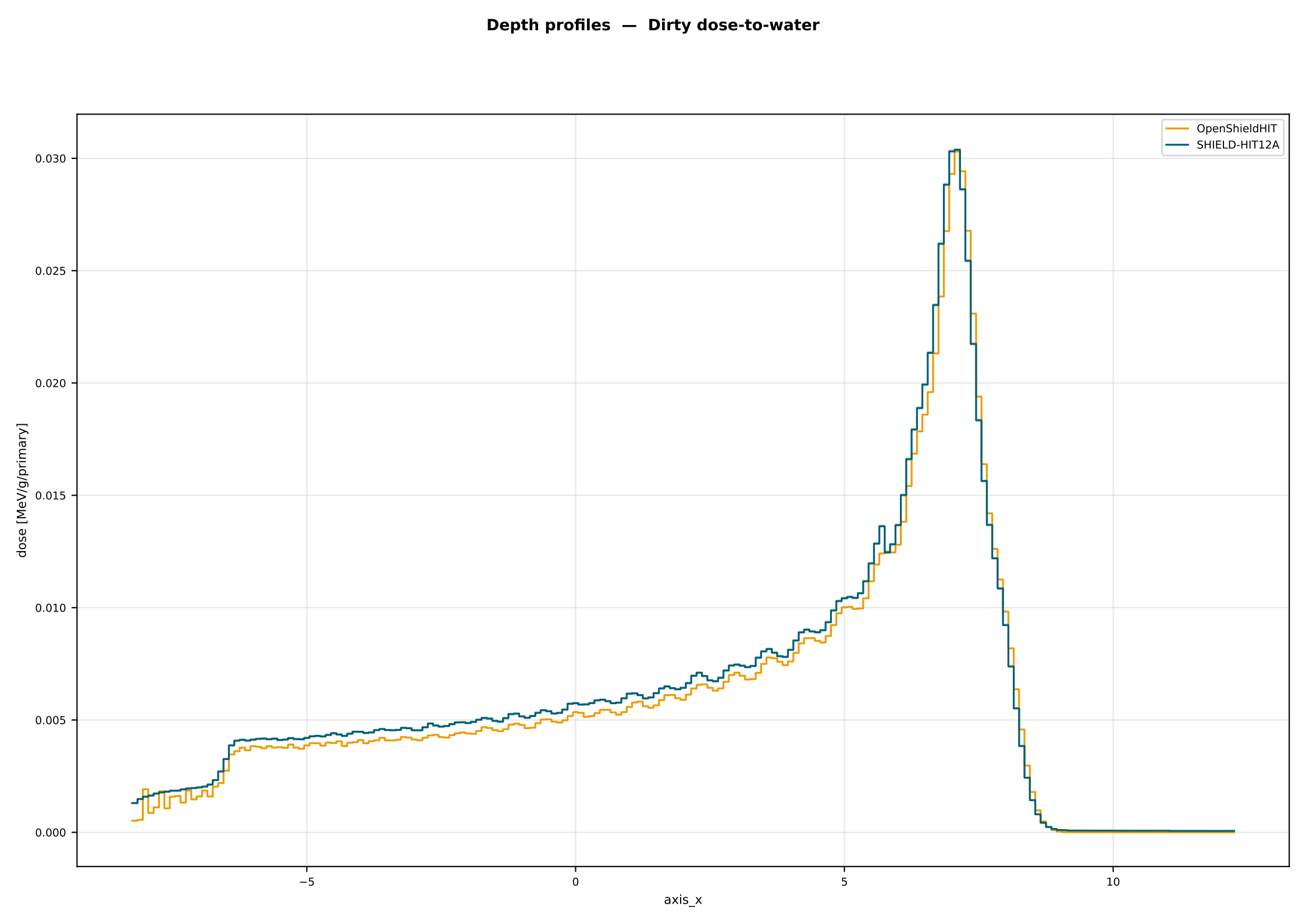
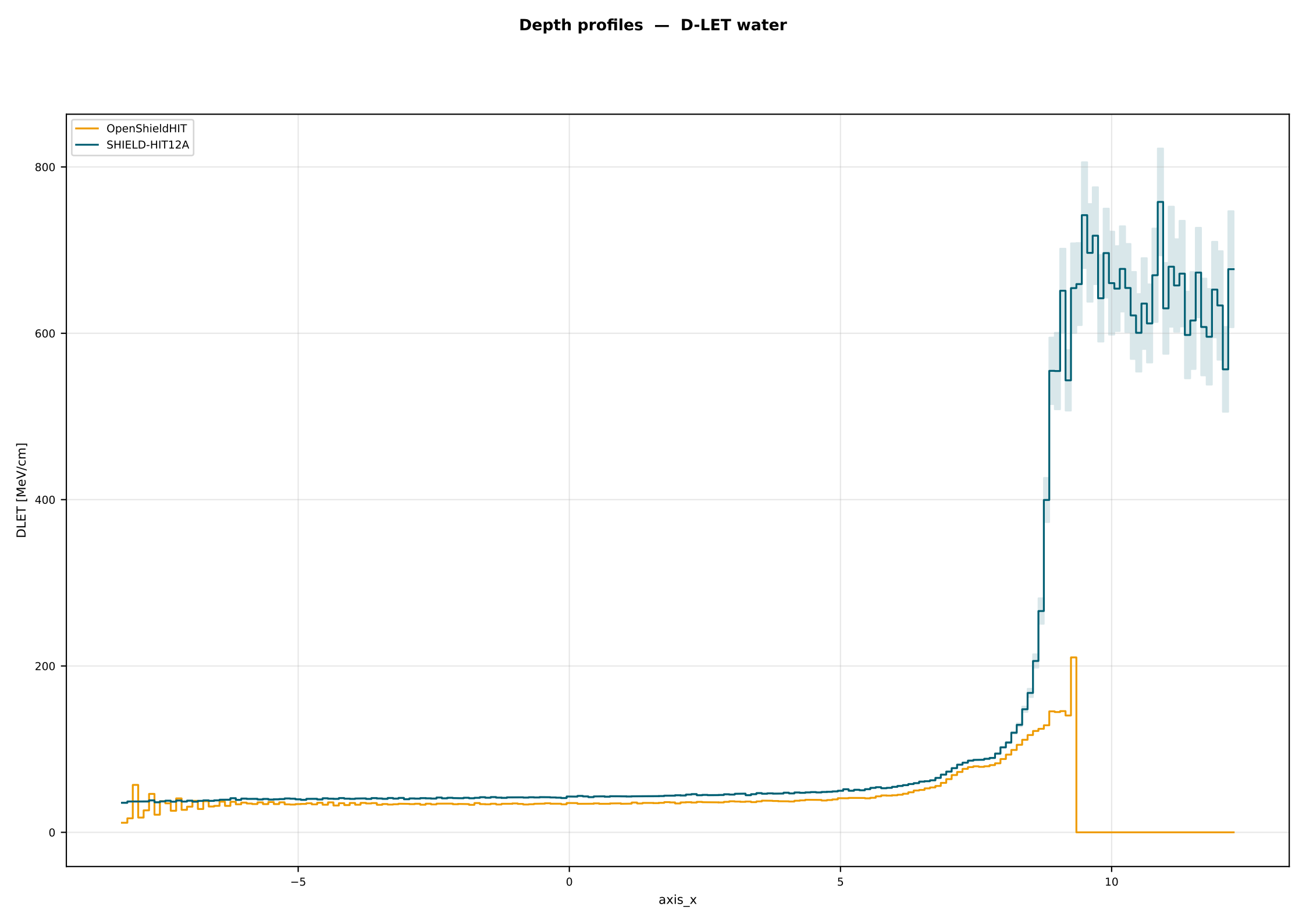
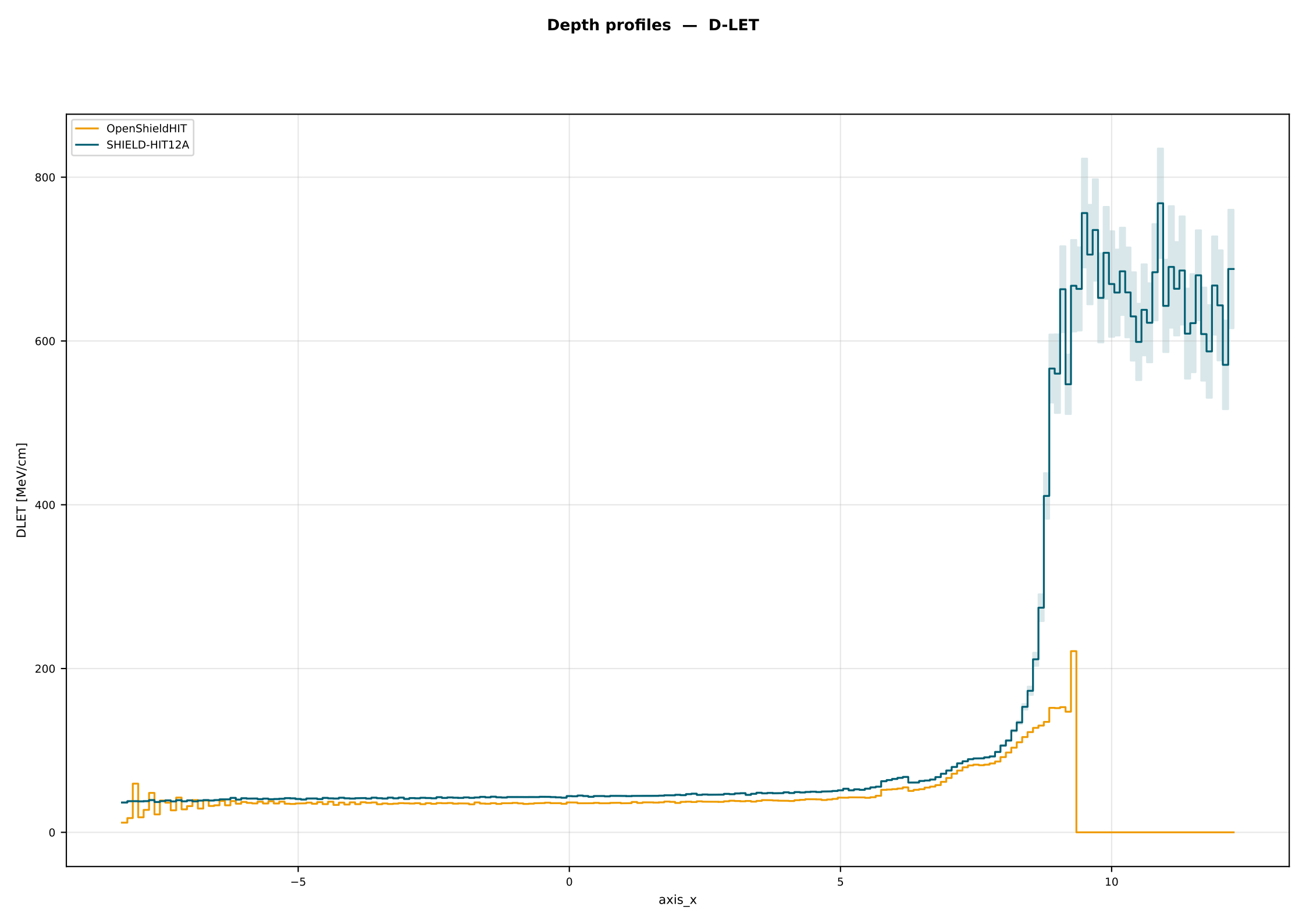
plan07_field01_geoG_SOBP

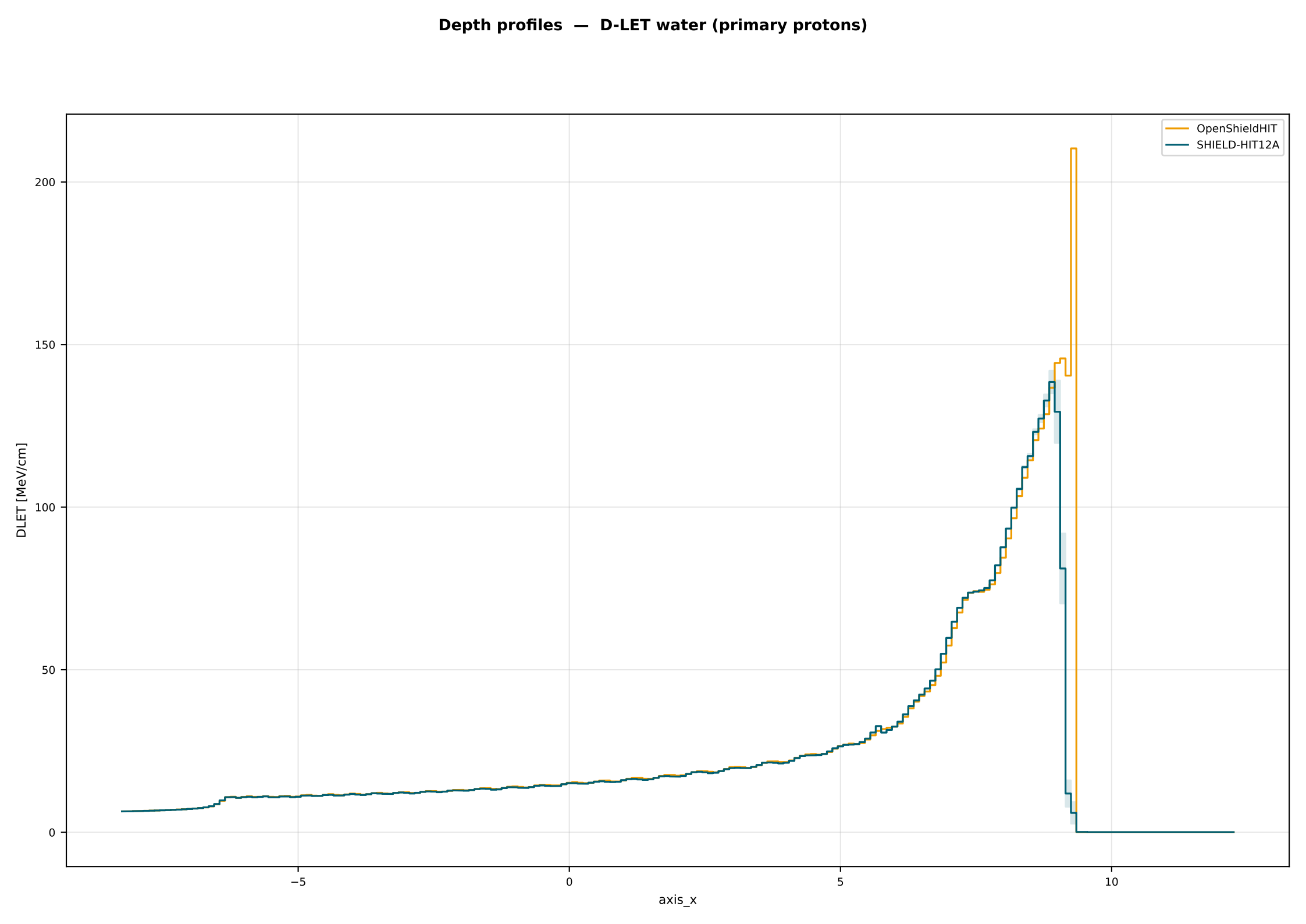
Codes: OpenShieldHIT, SHIELD-HIT12A, OpenTOPAS

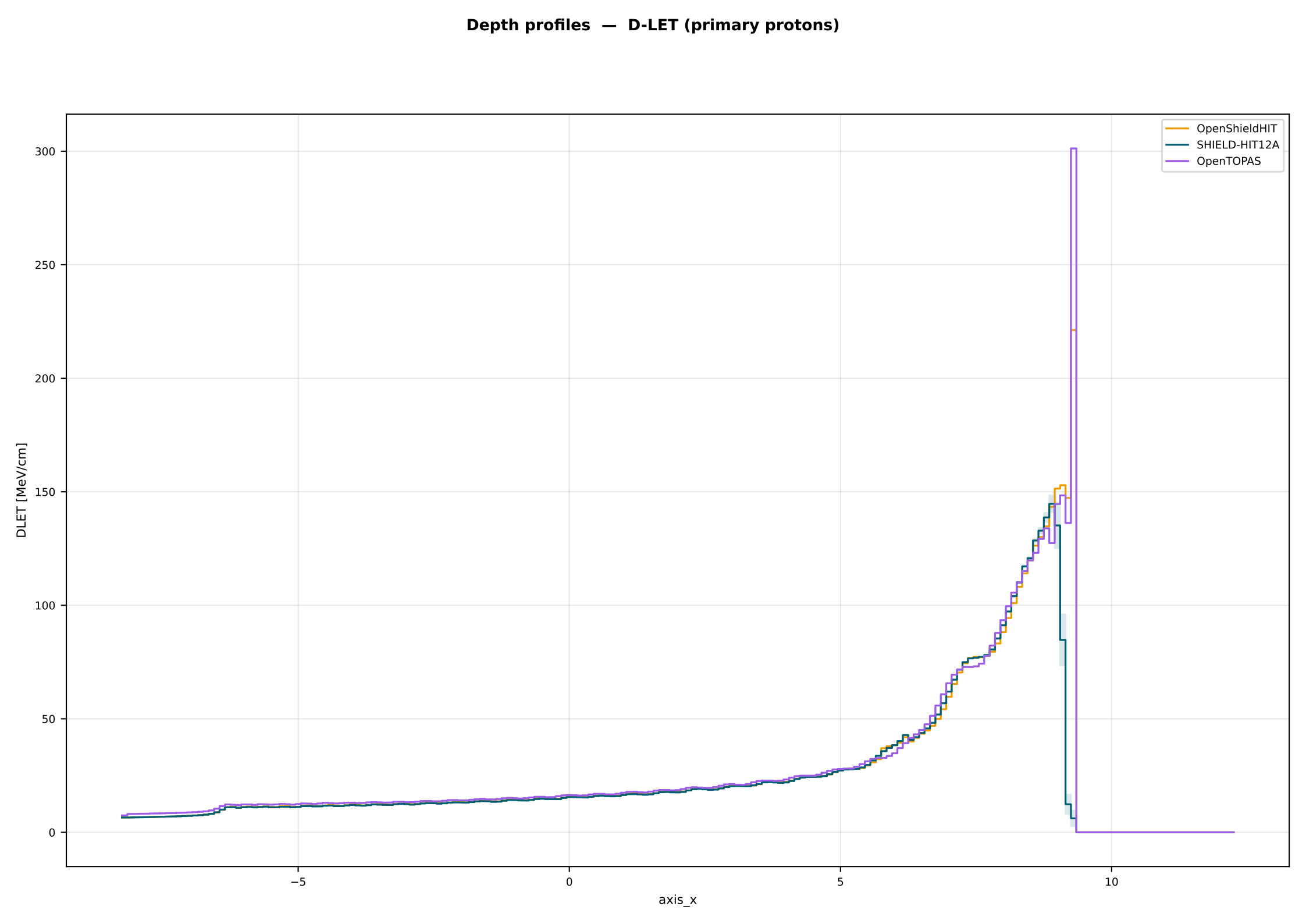
2026-10-21 14:33 UTC

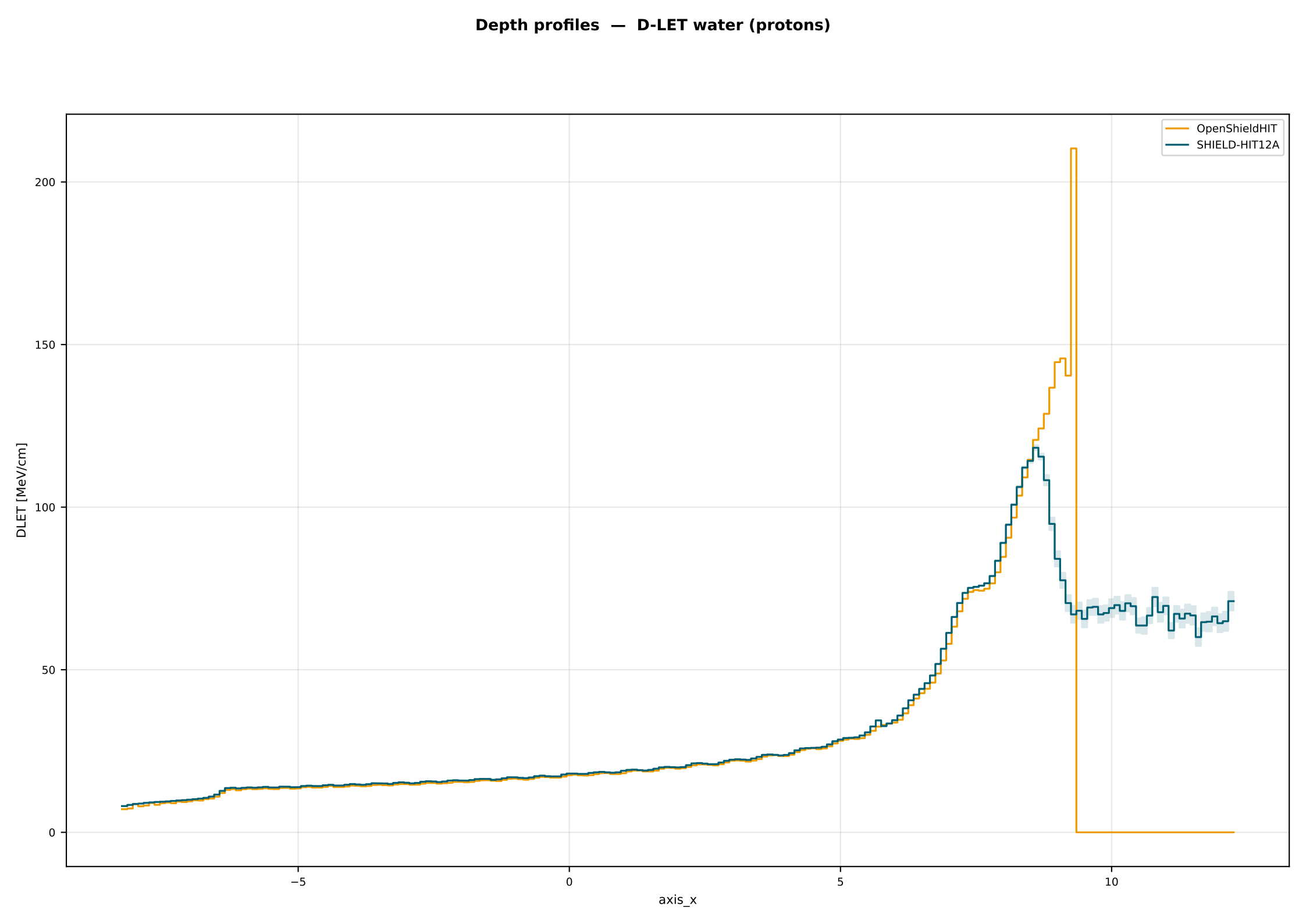

Depth profiles — Dirty dose-to-water
OpenShieldHIT
SHIELD-HIT12A
dose [MeV/g/primary]
0.030
0.025
0.020
0.015
0.010
0.005
0.000
−5
0
5
10
axis_x

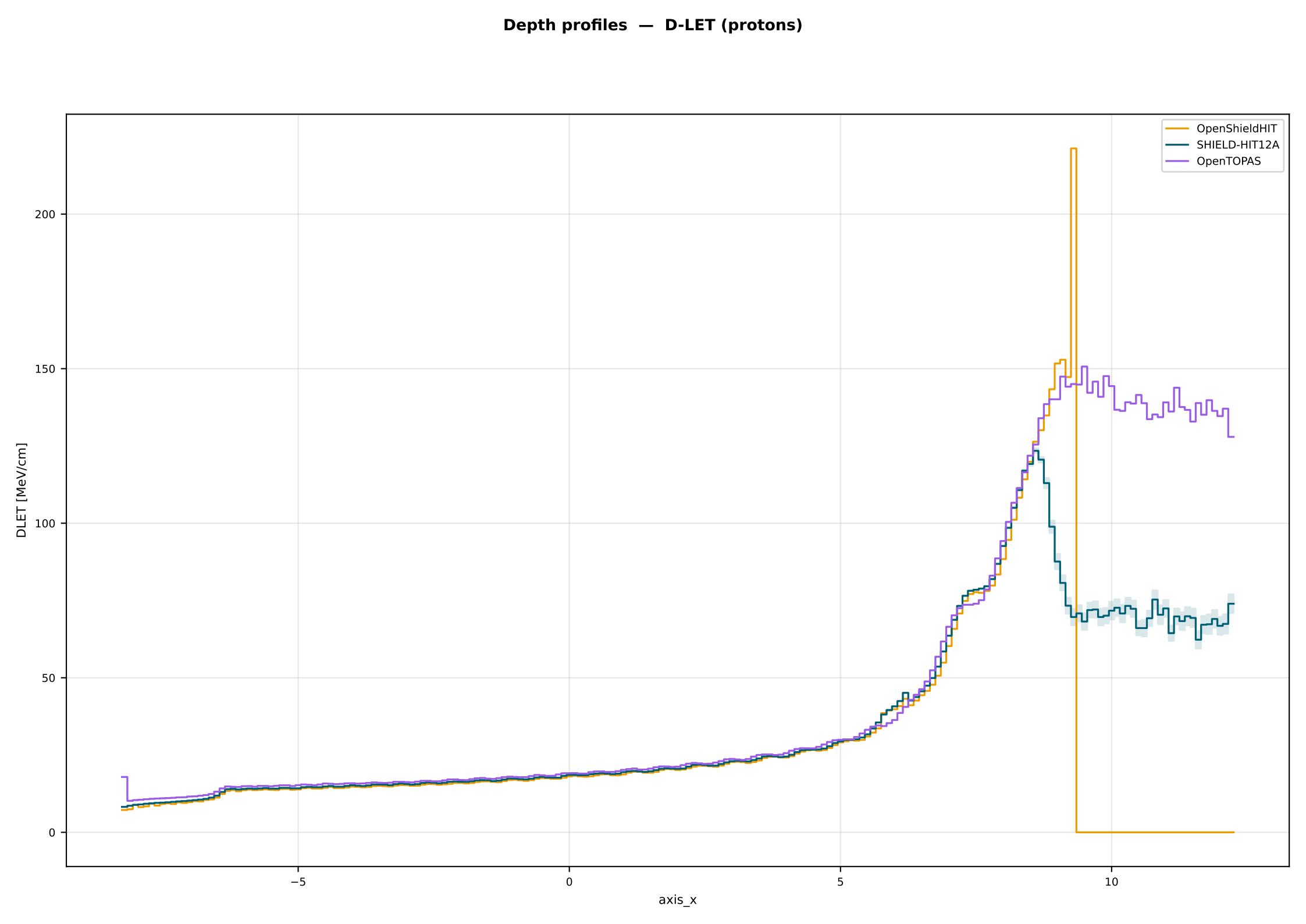

Depth profiles — D-LET water
OpenShieldHIT
SHIELD-HIT12A
DLET [MeV/cm]
800
600
400
200
0
−5
0
5
10
axis_x

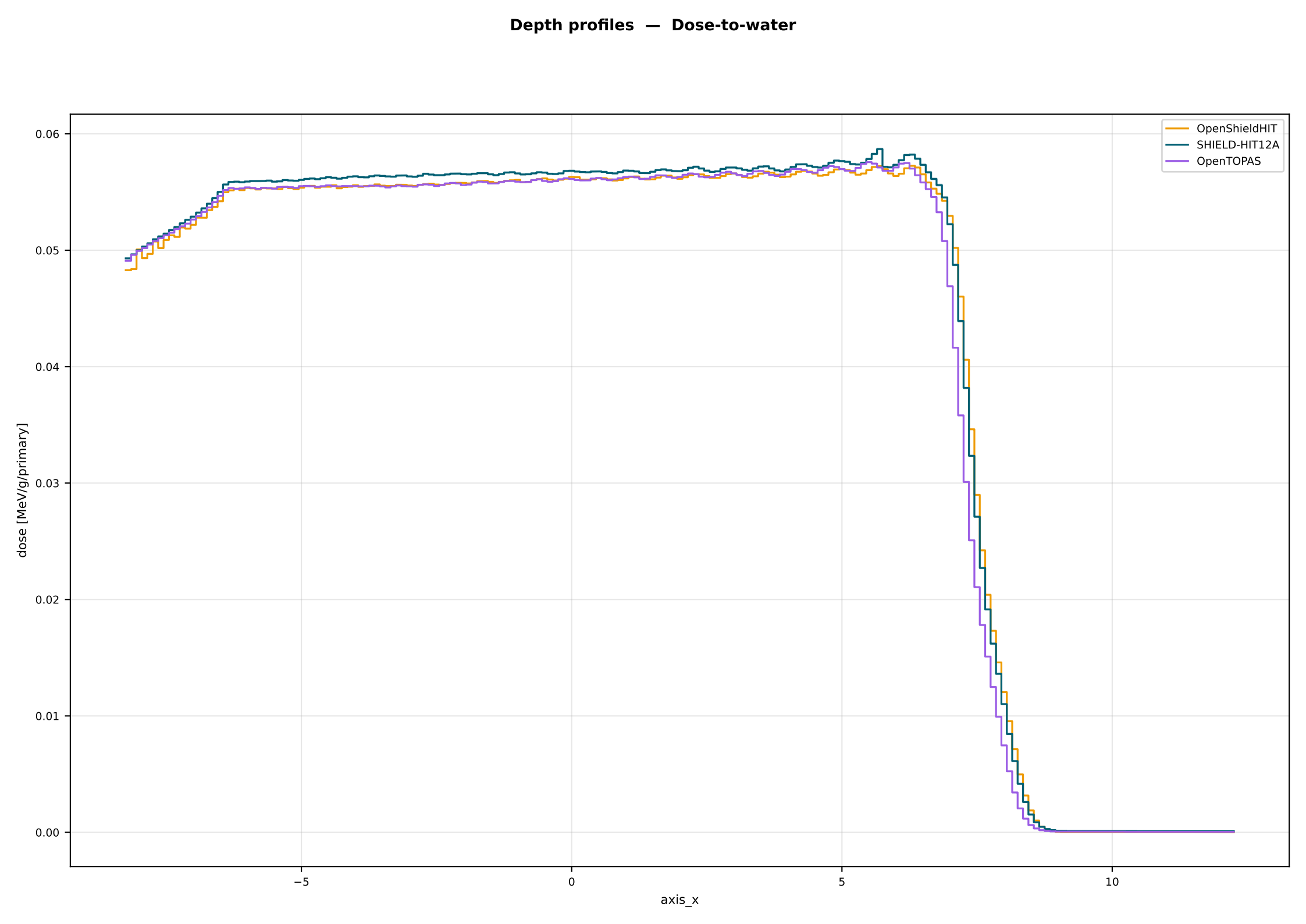

Depth profiles — D-LET
OpenShieldHIT
SHIELD-HIT12A
DLET [MeV/cm]
800
600
400
200
0
−5
0
5
10
axis_x

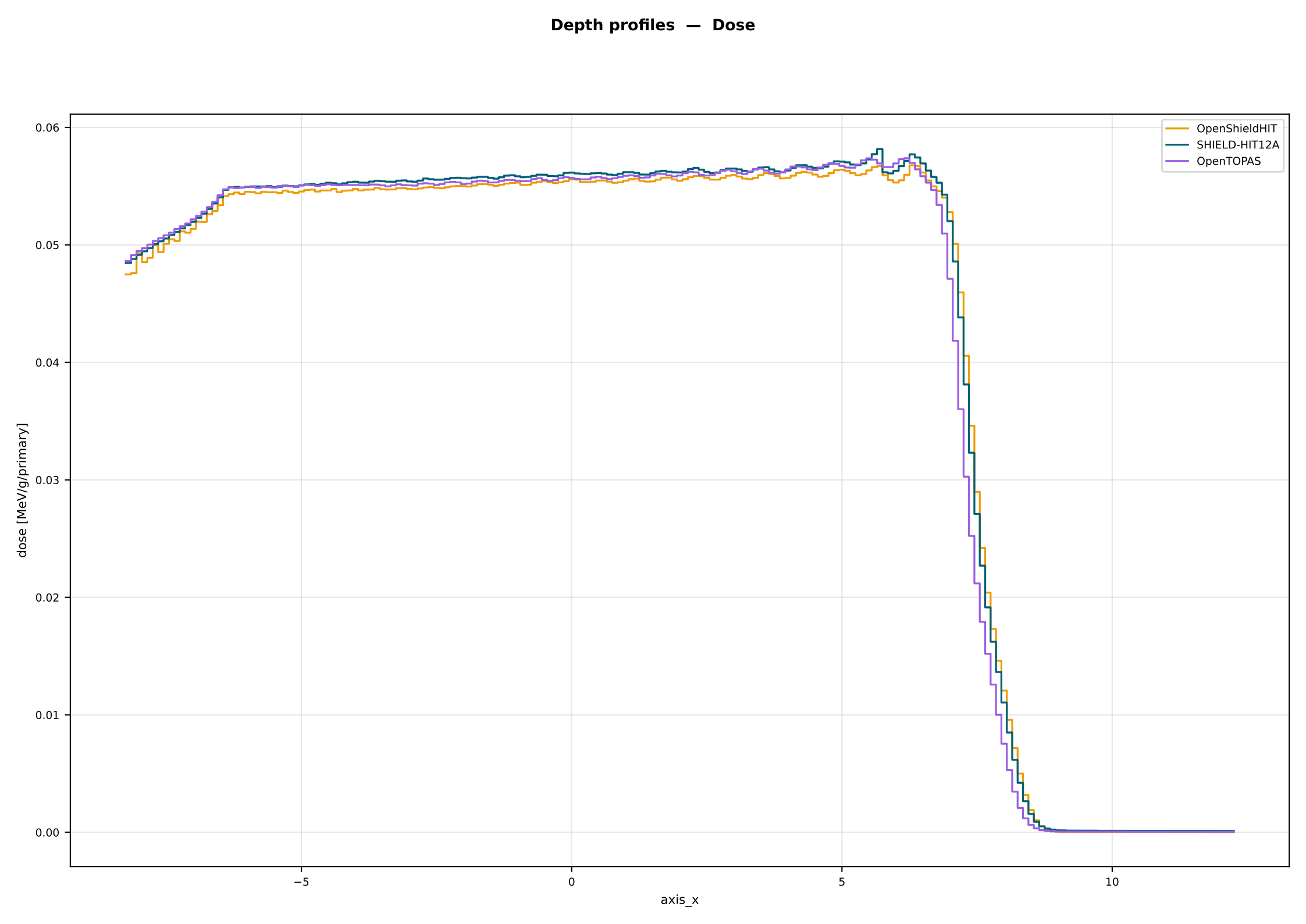

Depth profiles — D-LET water (primary protons)
OpenShieldHIT
SHIELD-HIT12A
DLET [MeV/cm]
200
150
100
50
0
−5
0
5
10
axis_x

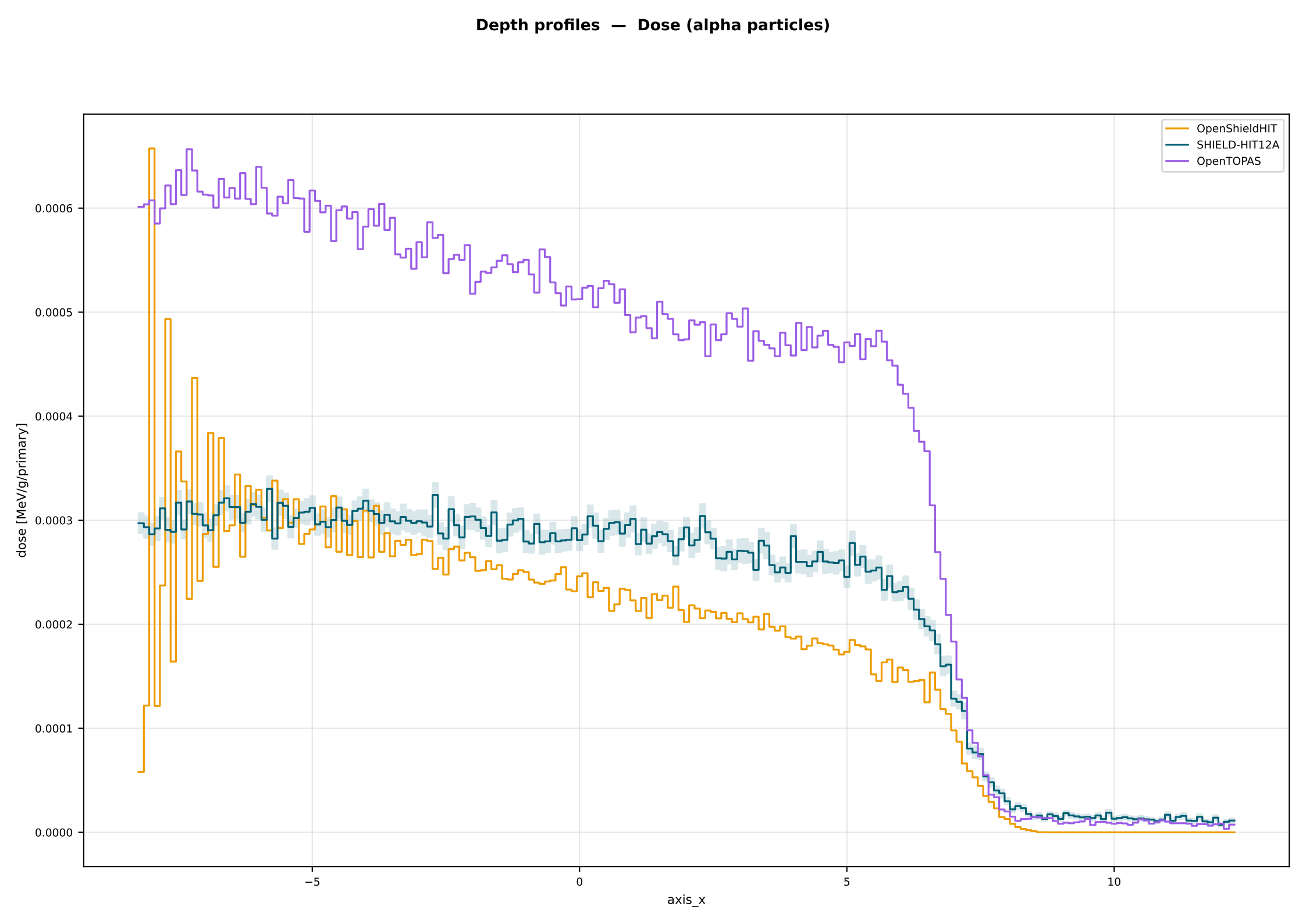

Depth profiles — D-LET (primary protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
DLET [MeV/cm]
300
250
200
150
100
50
0
−5
0
5
10
axis_x

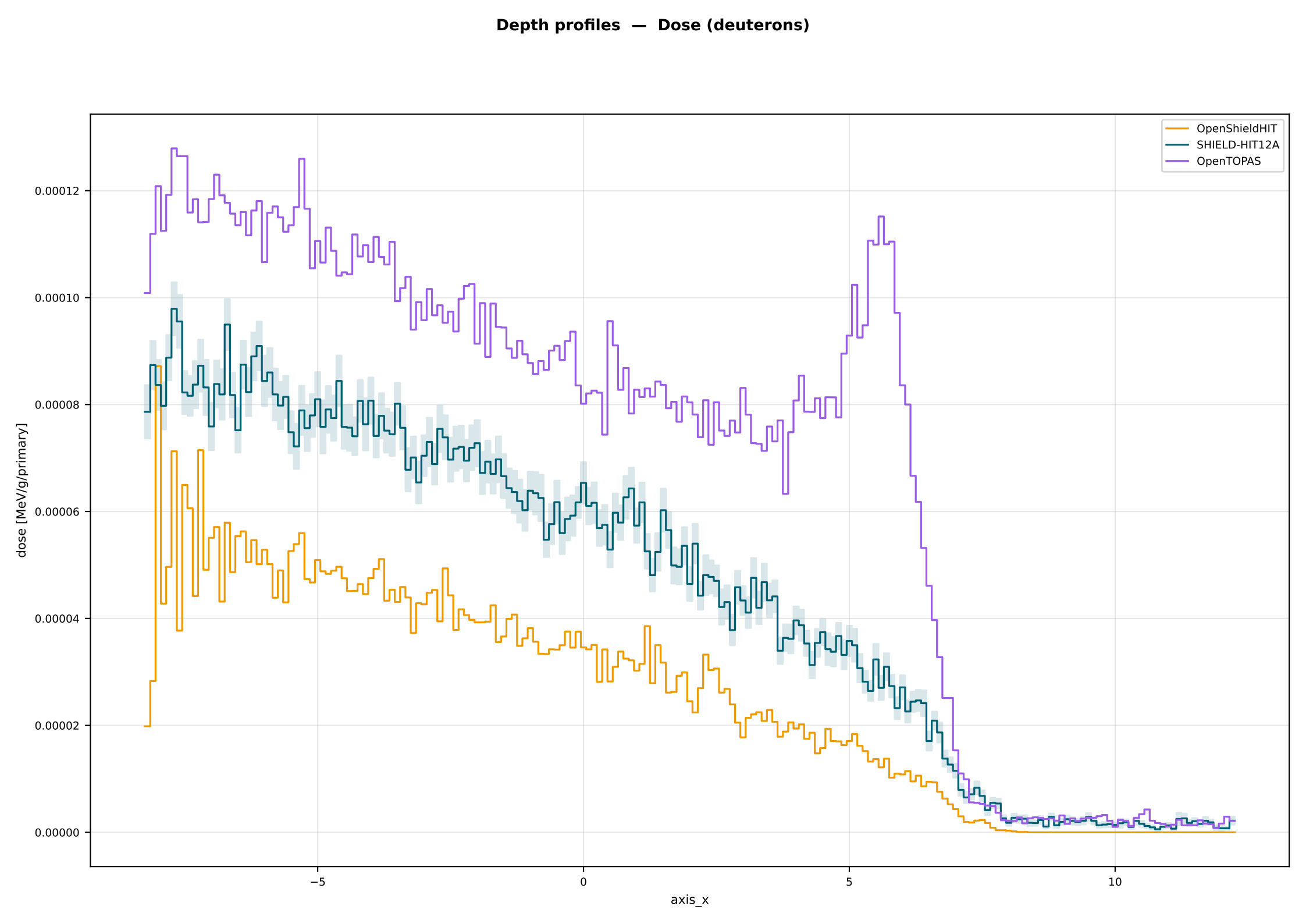

Depth profiles — D-LET water (protons)
OpenShieldHIT
SHIELD-HIT12A
DLET [MeV/cm]
200
150
100
50
0
−5
0
5
10
axis_x

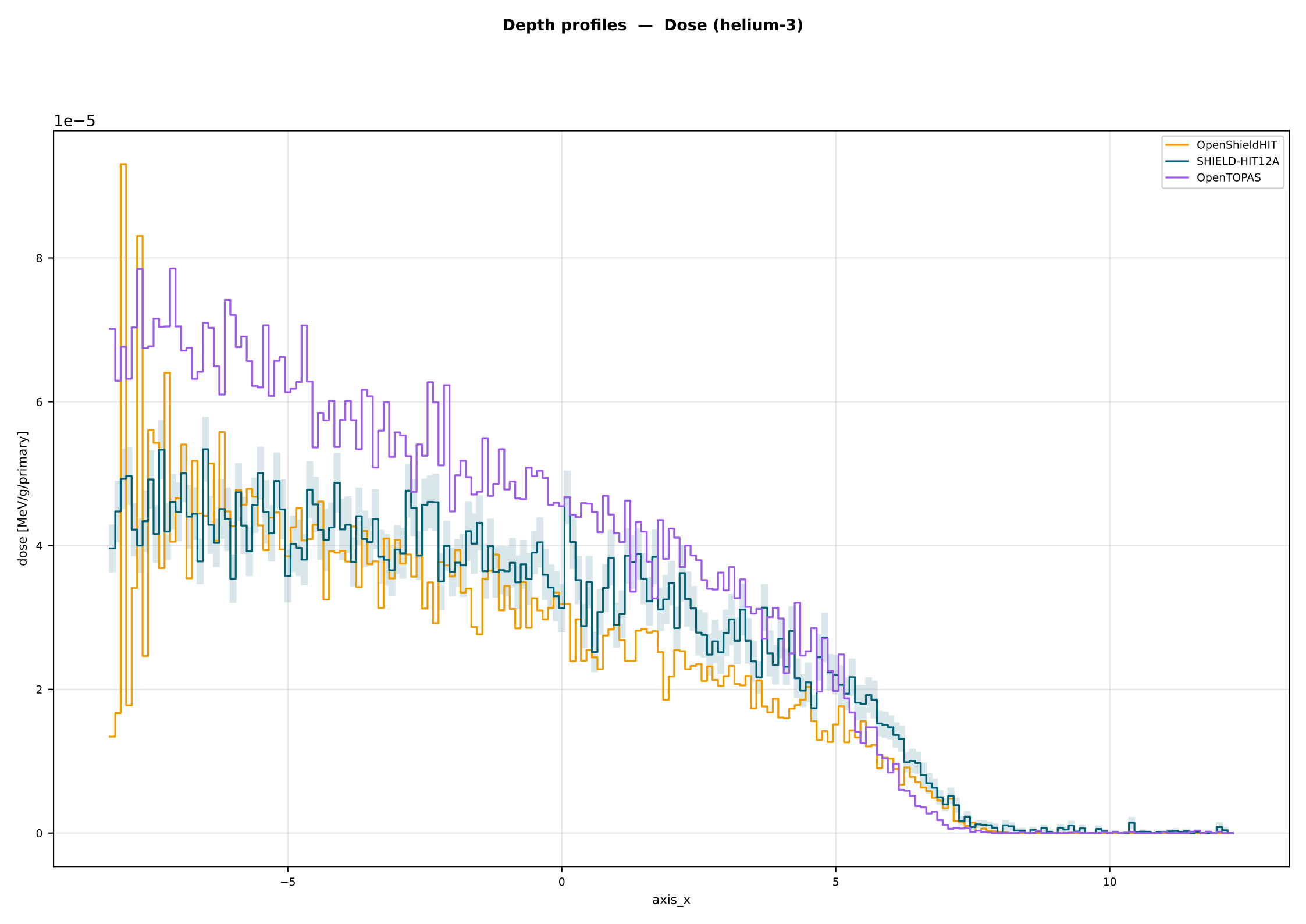

Depth profiles — D-LET (protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
DLET [MeV/cm]
200
150
100
50
0
−5
0
5
10
axis_x

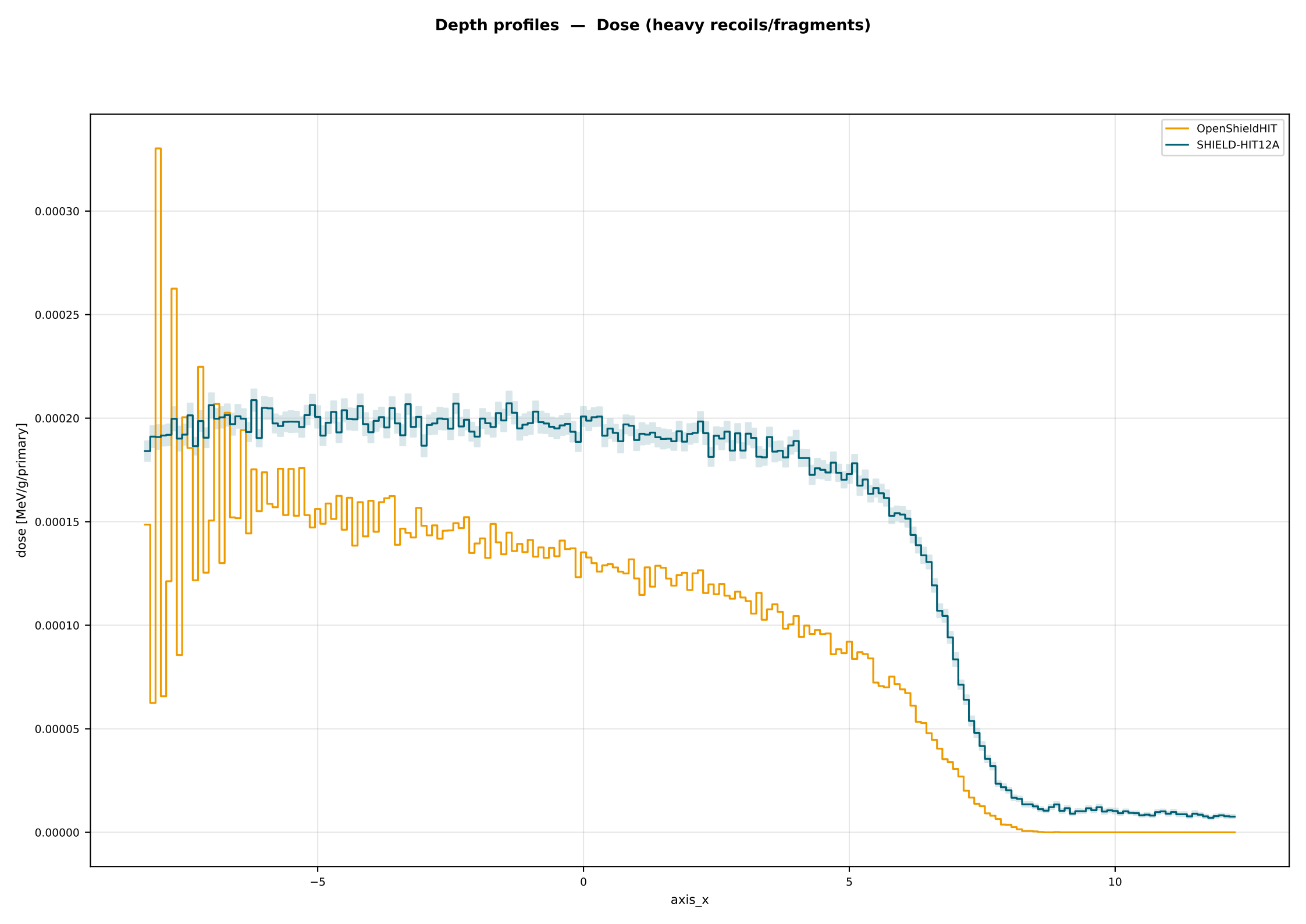

Depth profiles — Dose-to-water
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
dose [MeV/g/primary]
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−5
0
5
10
axis_x

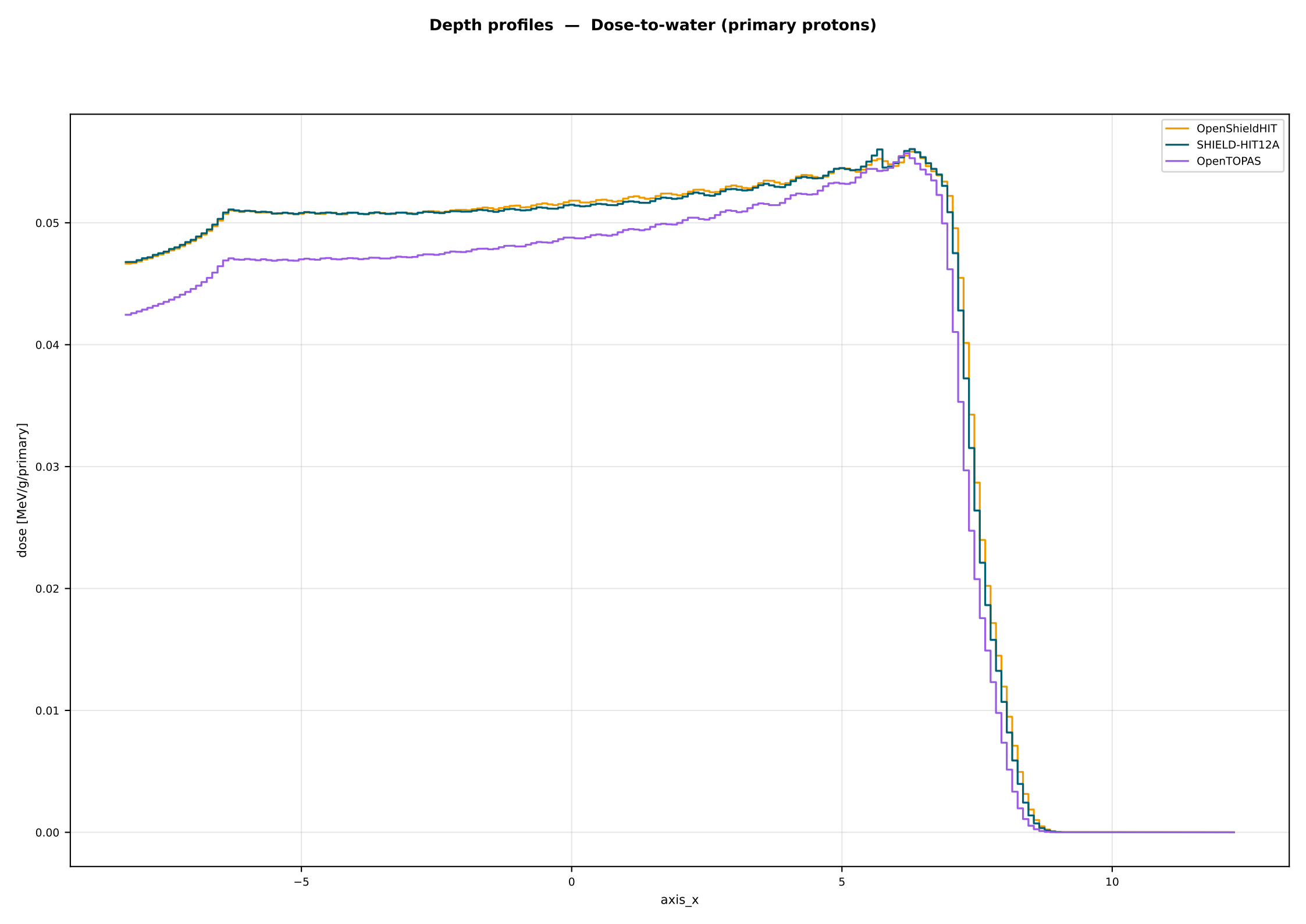

Depth profiles — Dose
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
dose [MeV/g/primary]
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−5
0
5
10
axis_x

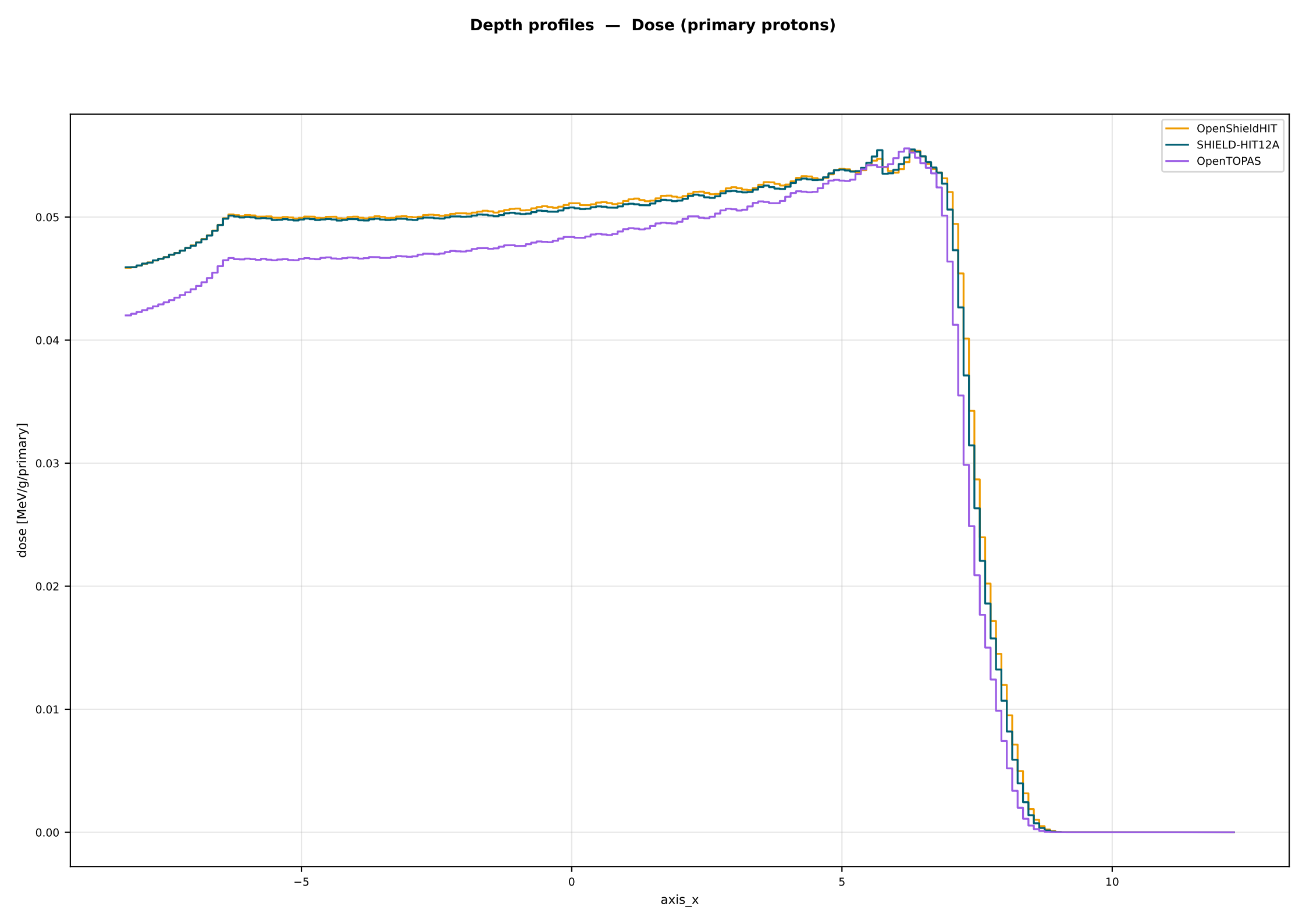

Depth profiles — Dose (alpha particles)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
dose [MeV/g/primary]
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0.0000
−5
0
5
10
axis_x

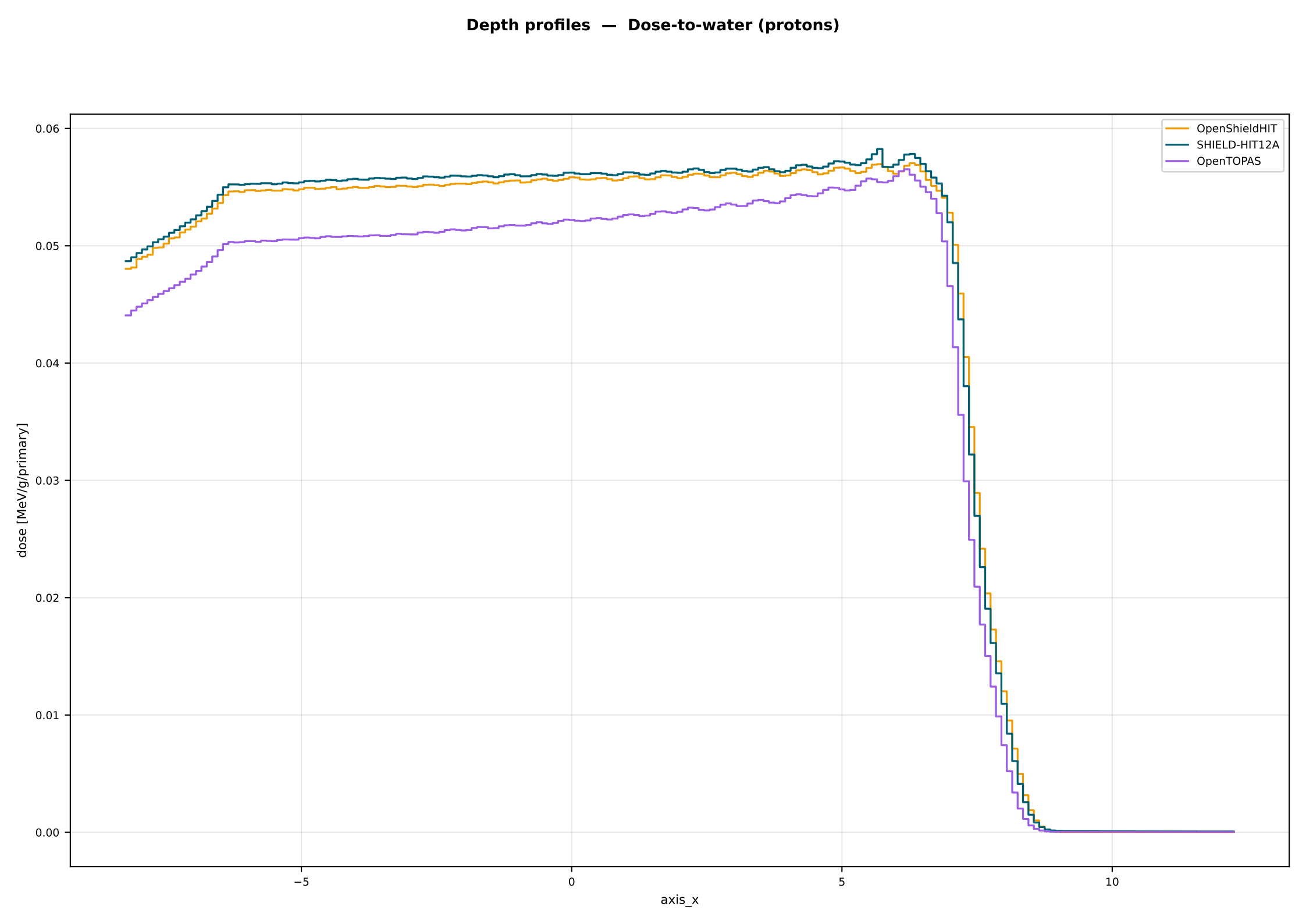

Depth profiles — Dose (deuterons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
dose [MeV/g/primary]
0.00012
0.00010
0.00008
0.00006
0.00004
0.00002
0.00000
−5
0
5
10
axis_x

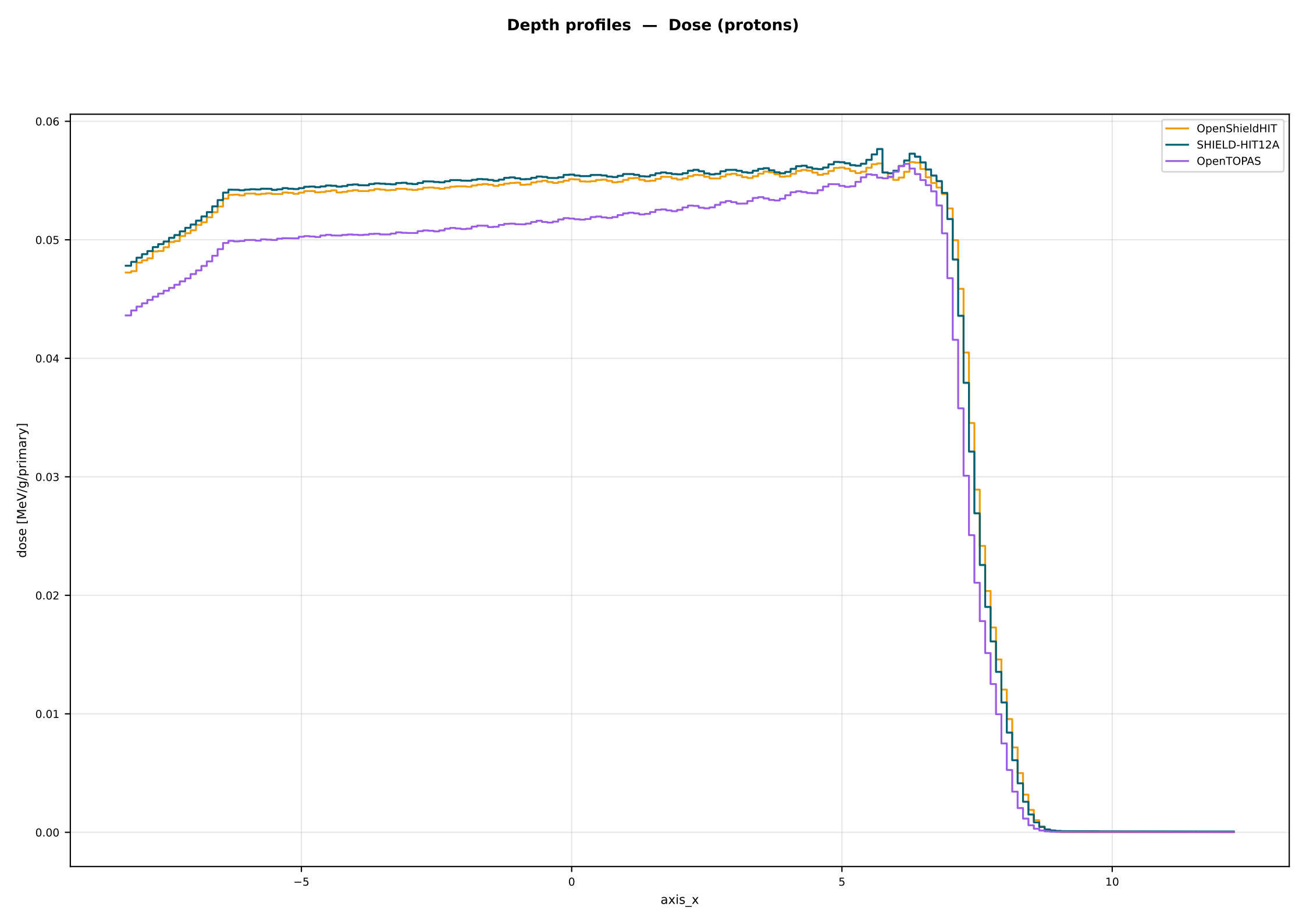

Depth profiles — Dose (helium-3)
1e−5
dose [MeV/g/primary]
axis_x
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
0
2
4
6
8
−5
0
5
10

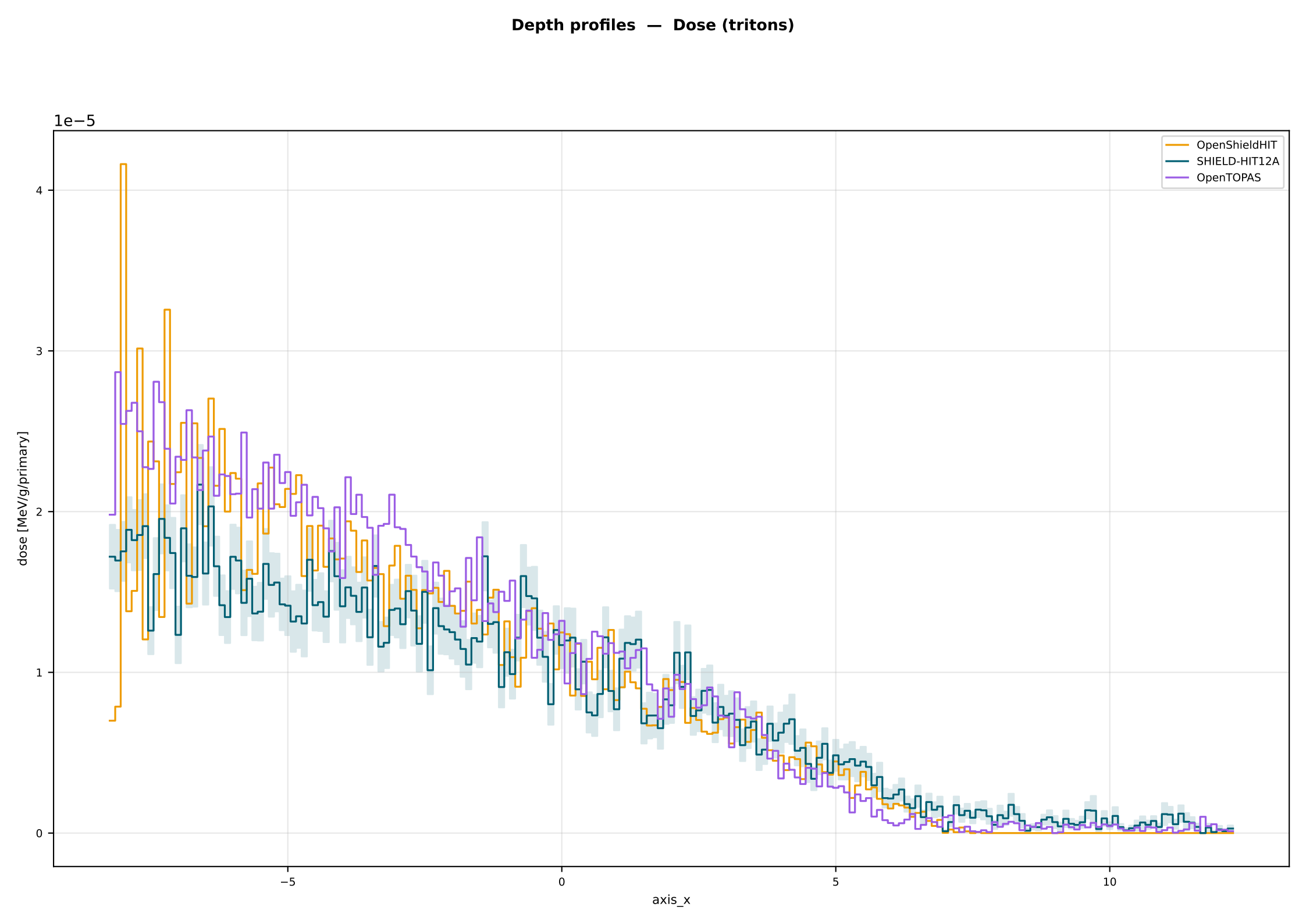

Depth profiles — Dose (heavy recoils/fragments)
OpenShieldHIT
SHIELD-HIT12A
dose [MeV/g/primary]
0.00030
0.00025
0.00020
0.00015
0.00010
0.00005
0.00000
−5
0
5
10
axis_x

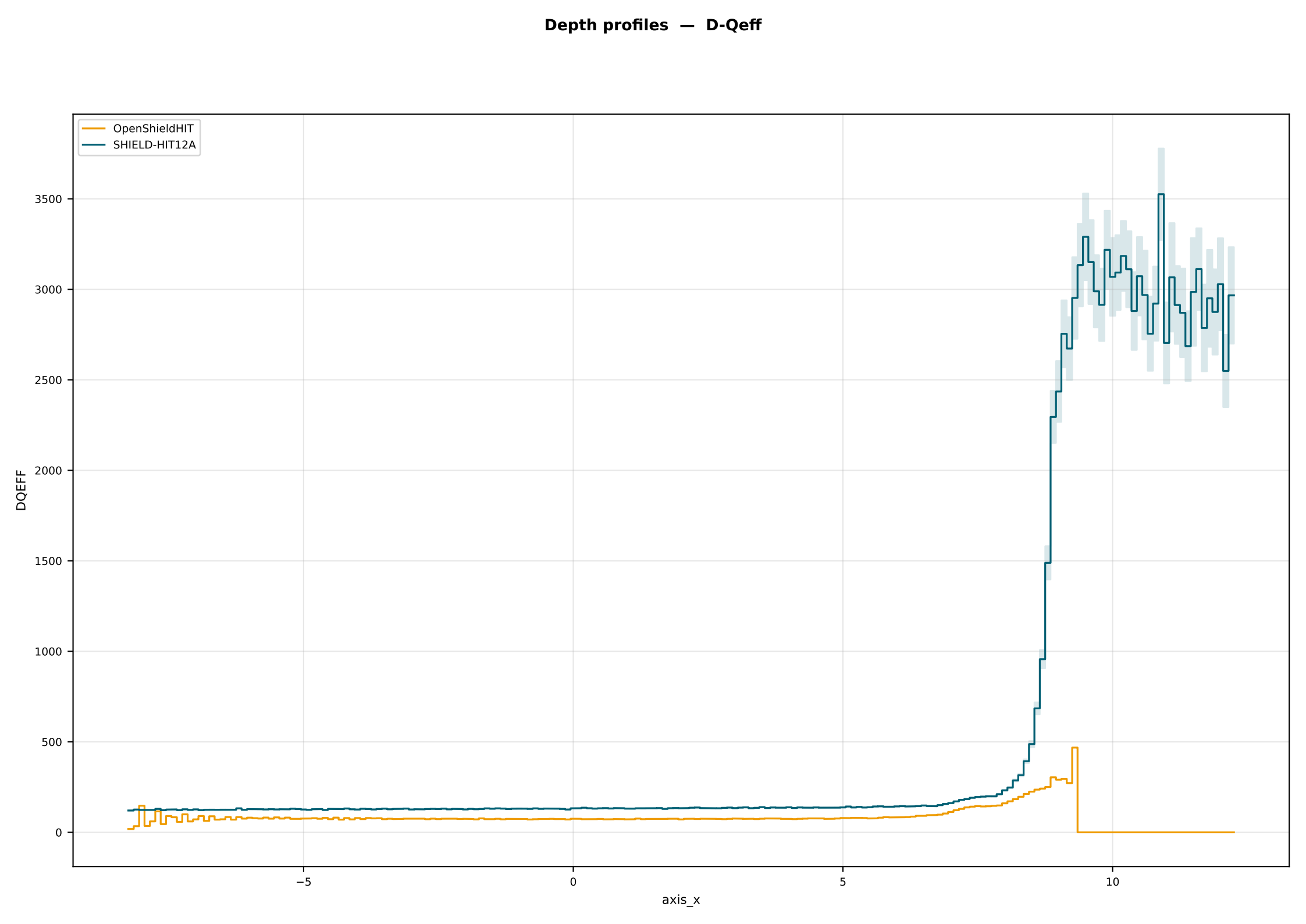

Depth profiles — Dose-to-water (primary protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
dose [MeV/g/primary]
0.00
0.01
0.02
0.03
0.04
0.05
−5
0
5
10
axis_x


Depth profiles — Dose (primary protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
dose [MeV/g/primary]
0.00
0.01
0.02
0.03
0.04
0.05
−5
0
5
10
axis_x

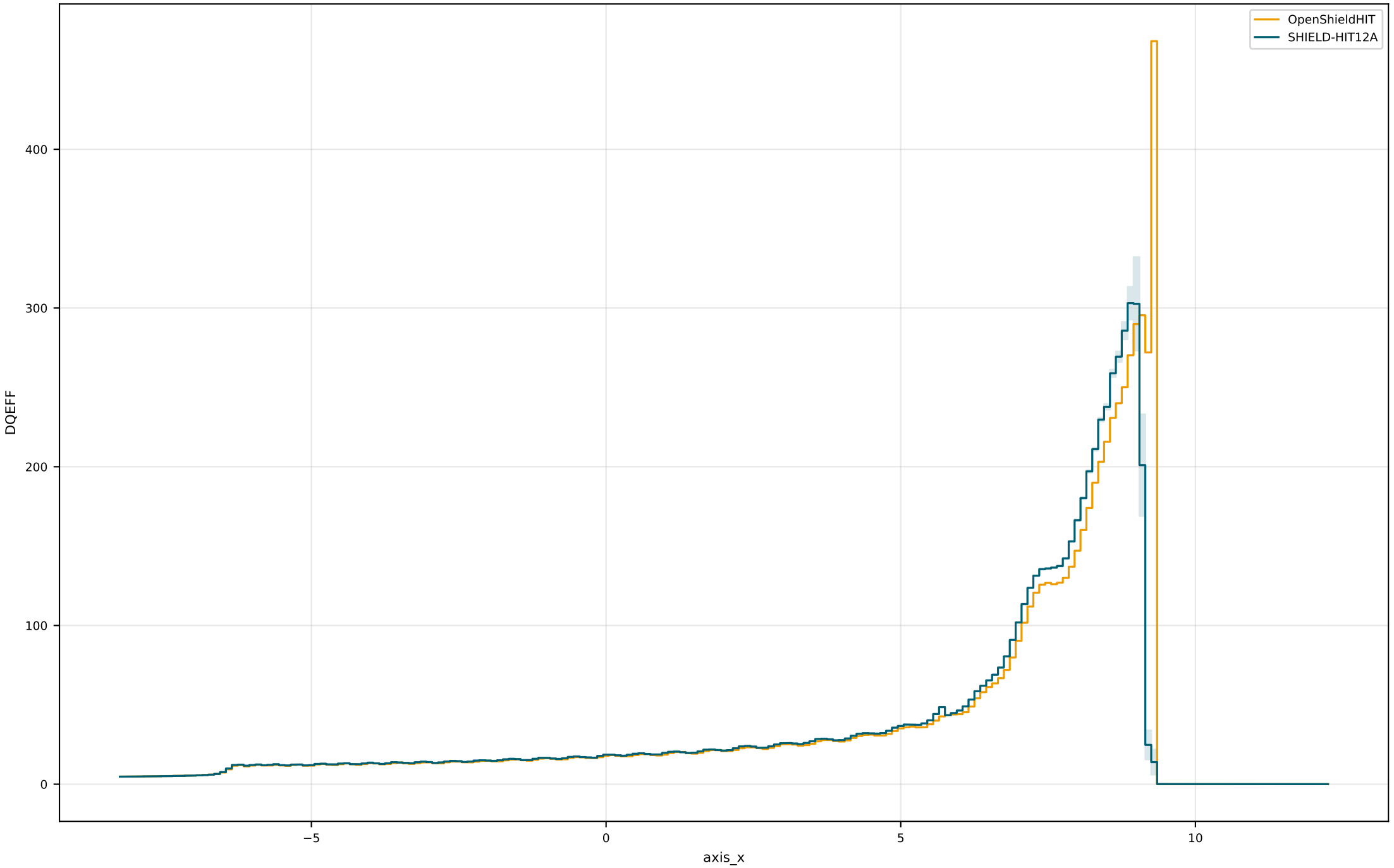

Depth profiles — Dose-to-water (protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
dose [MeV/g/primary]
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−5
0
5
10
axis_x

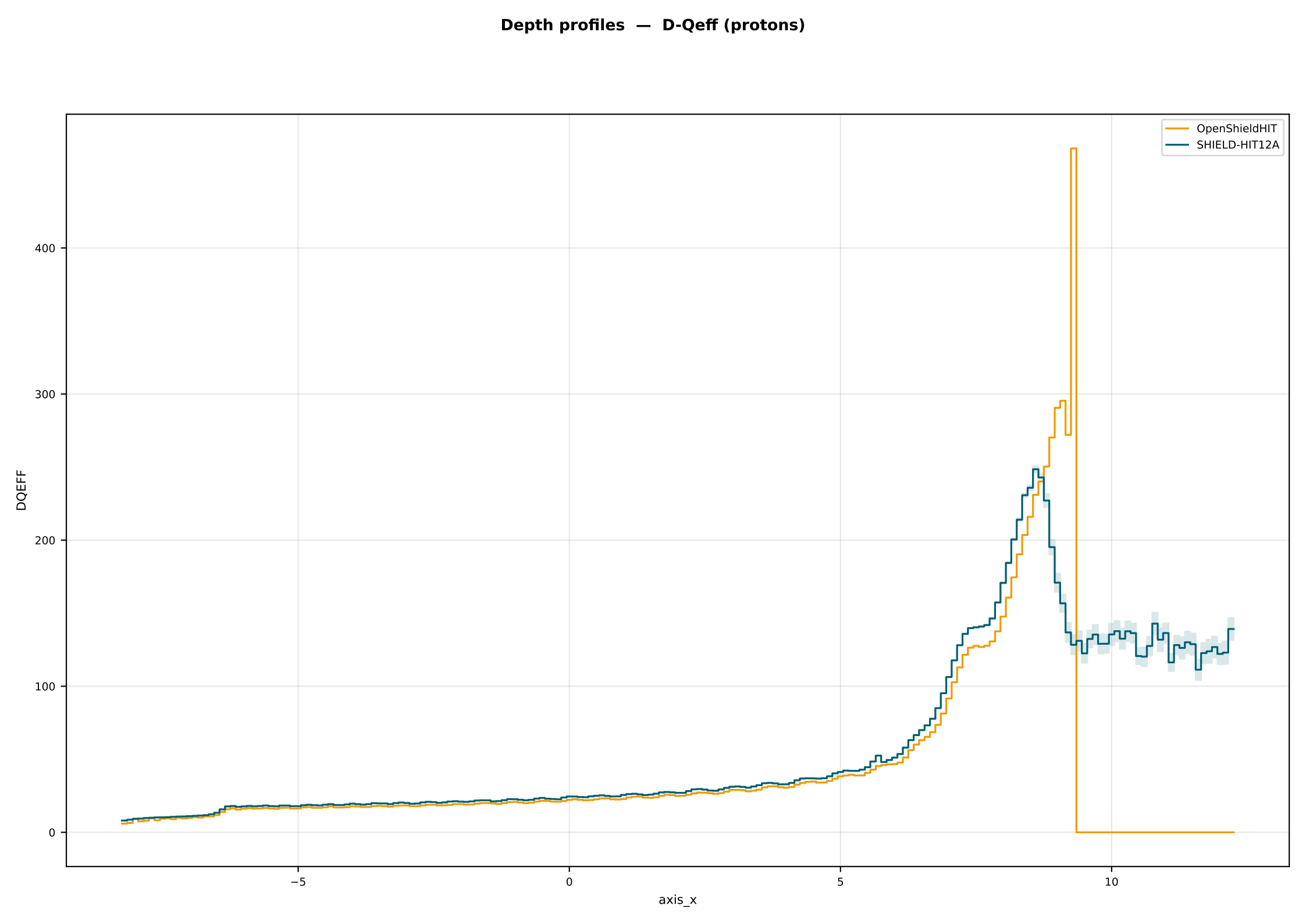

Depth profiles — Dose (protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
dose [MeV/g/primary]
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−5
0
5
10
axis_x

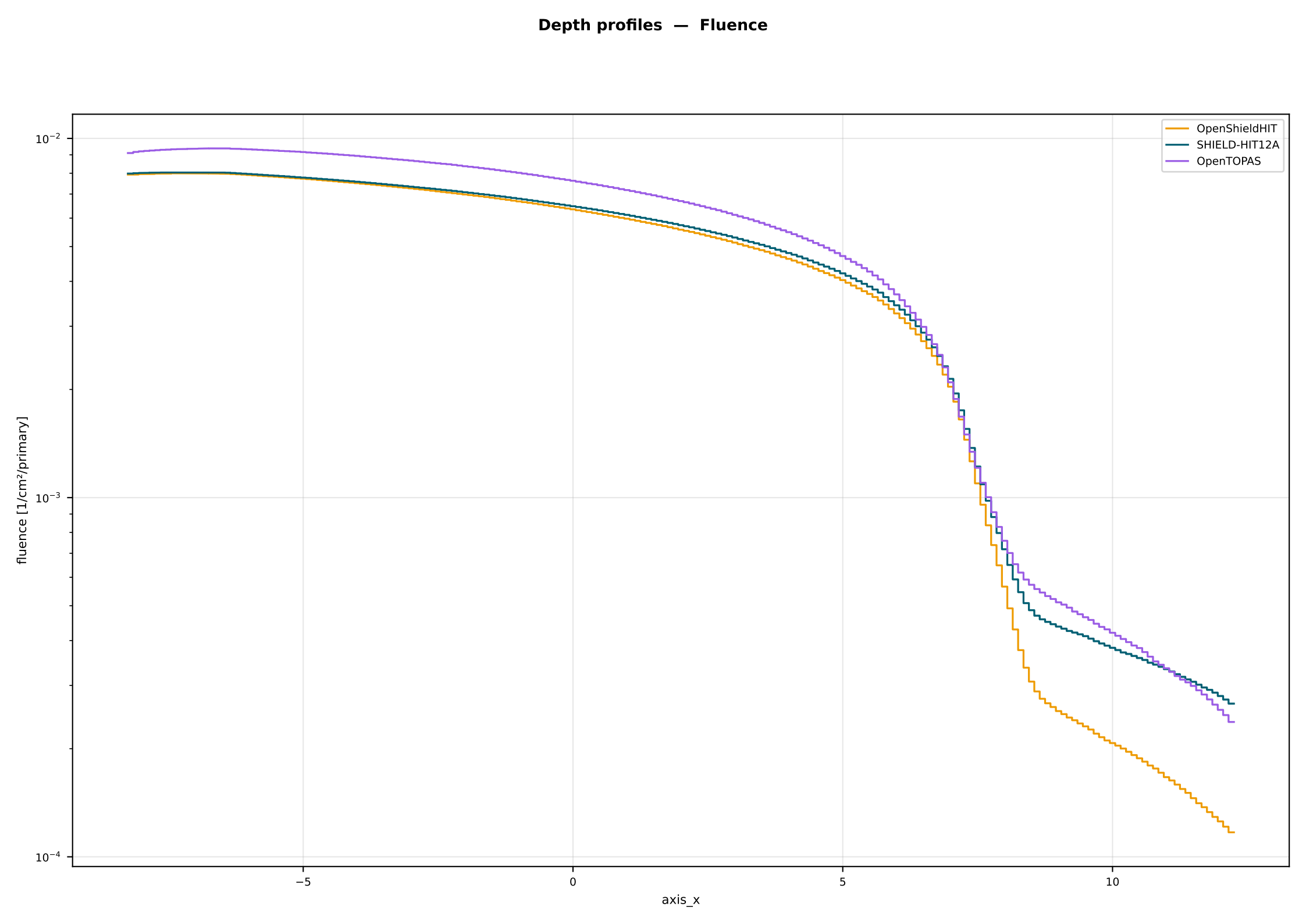

Depth profiles — Dose (tritons)
1e−5
dose [MeV/g/primary]
axis_x
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
0
1
2
3
4
−5
0
5
10

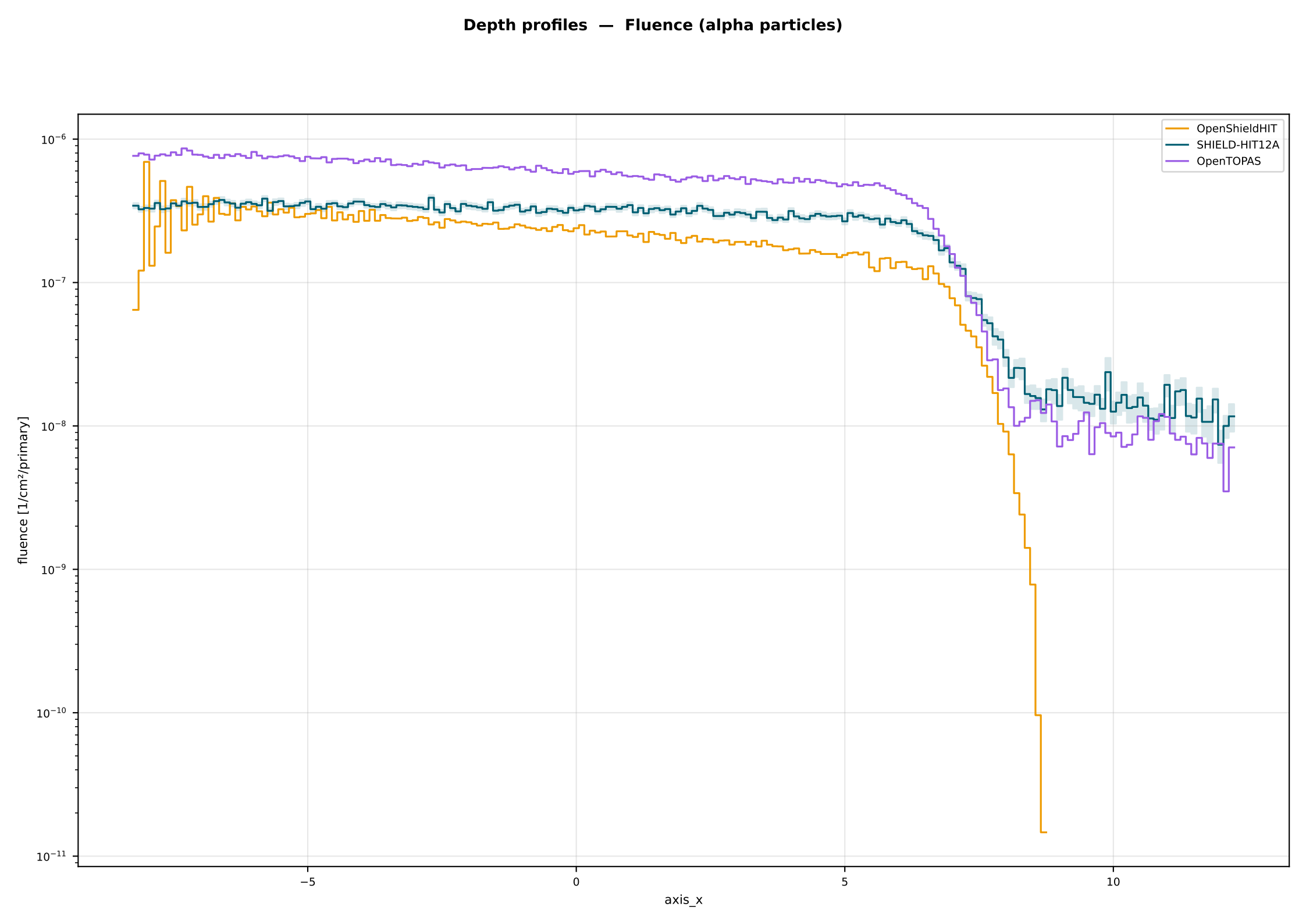

Depth profiles — D-Qeff
OpenShieldHIT
SHIELD-HIT12A
DQEFF
axis_x
0
500
1000
1500
2000
2500
3000
3500
−5
0
5
10

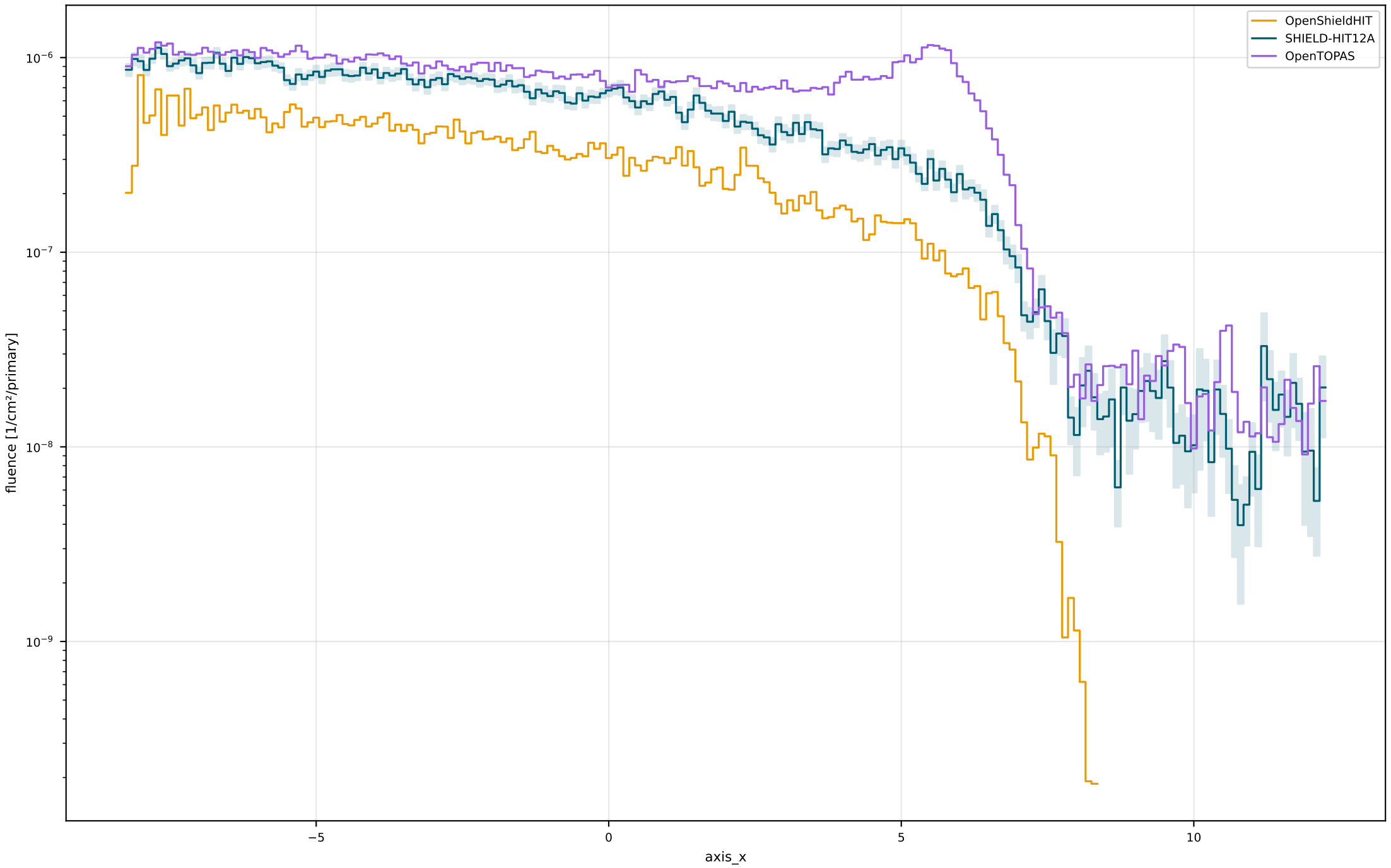
Depth profiles — D-Qeff (primary protons)

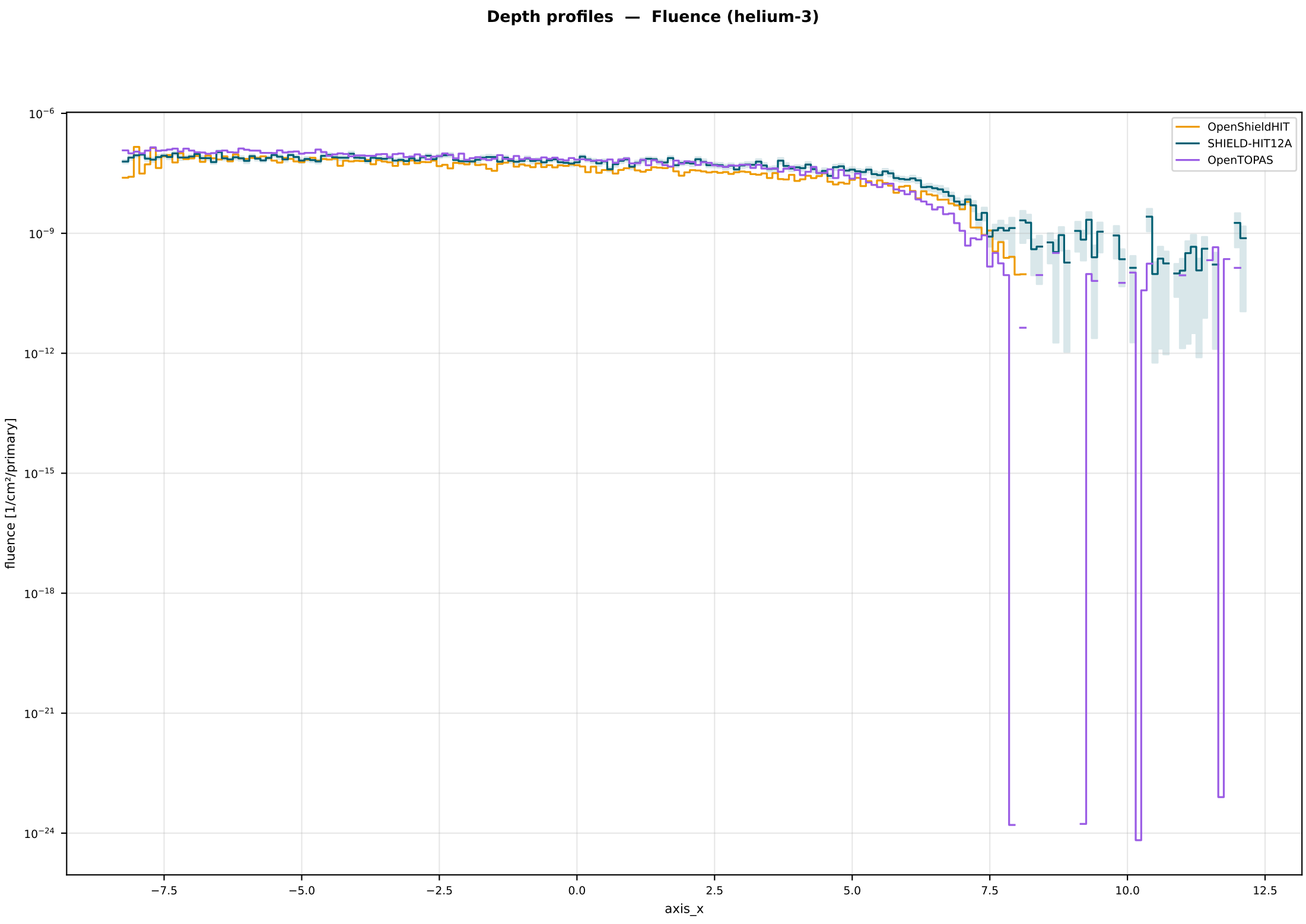


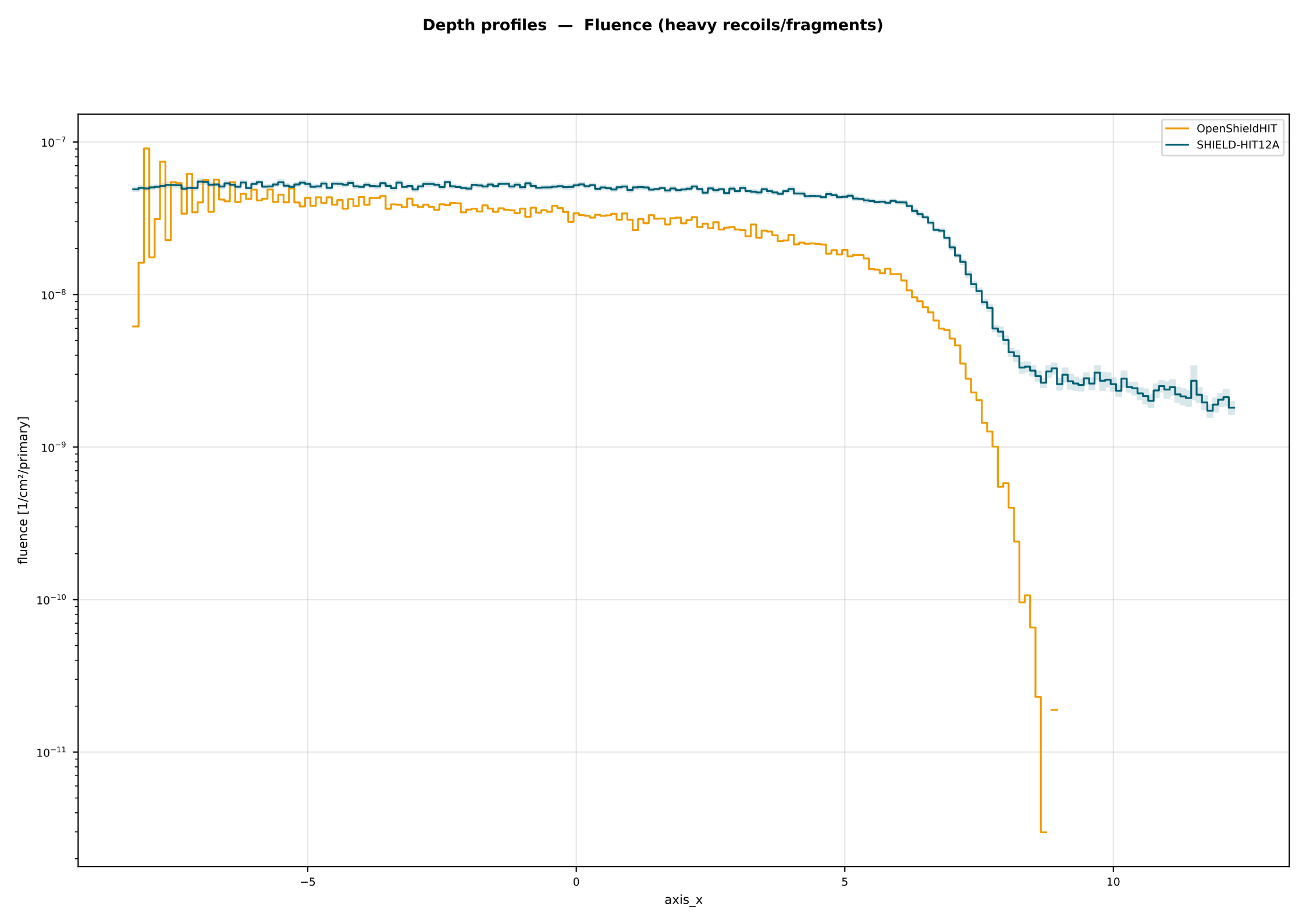

Depth profiles — D-Qeff (protons)
OpenShieldHIT
SHIELD-HIT12A
DQEFF
0
100
200
300
400
−5
0
5
10
axis_x

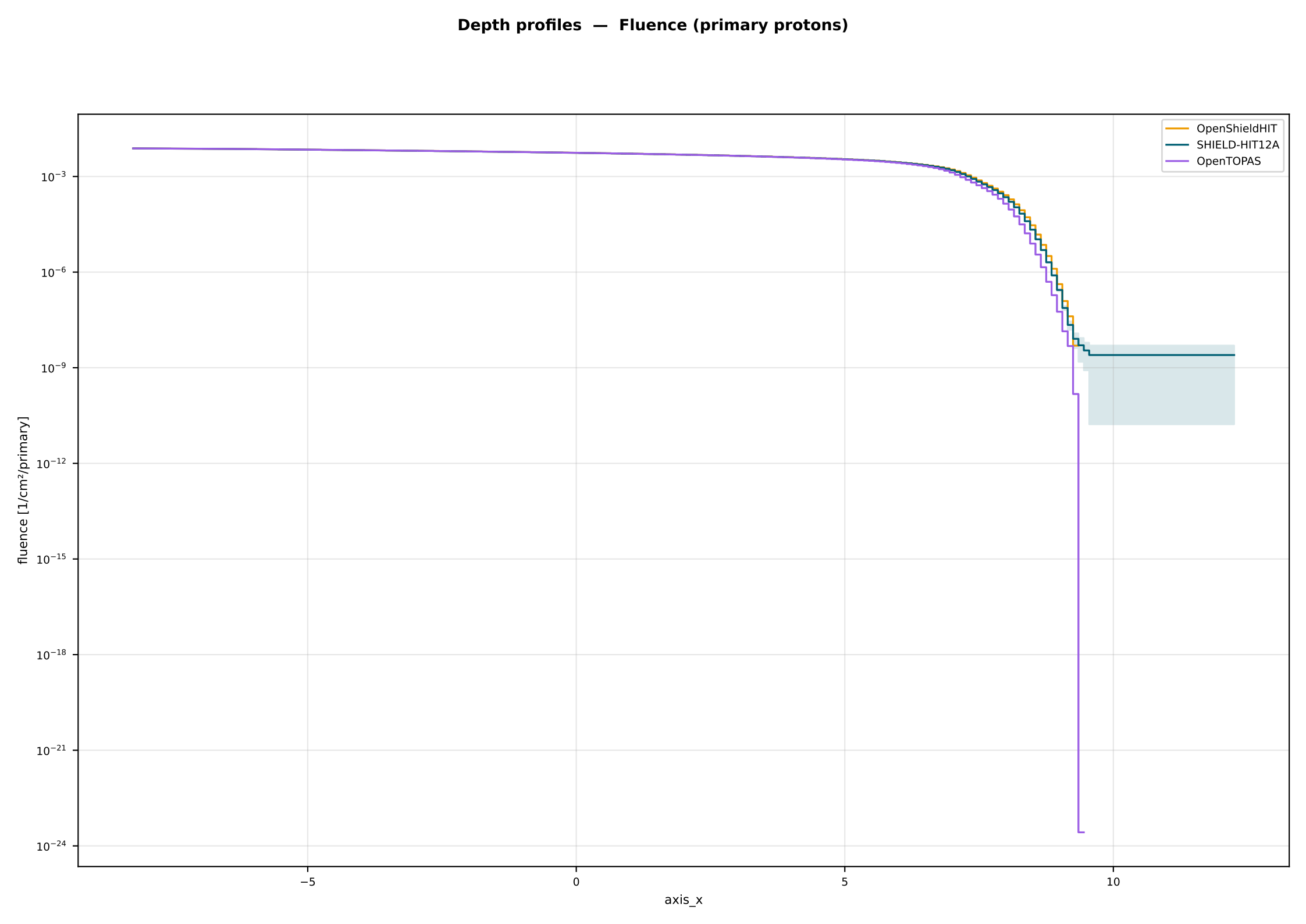

Depth profiles — Fluence
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence [1/cm²/primary]
10^{-2}
10^{-3}
10^{-4}
−5
0
5
10
axis_x

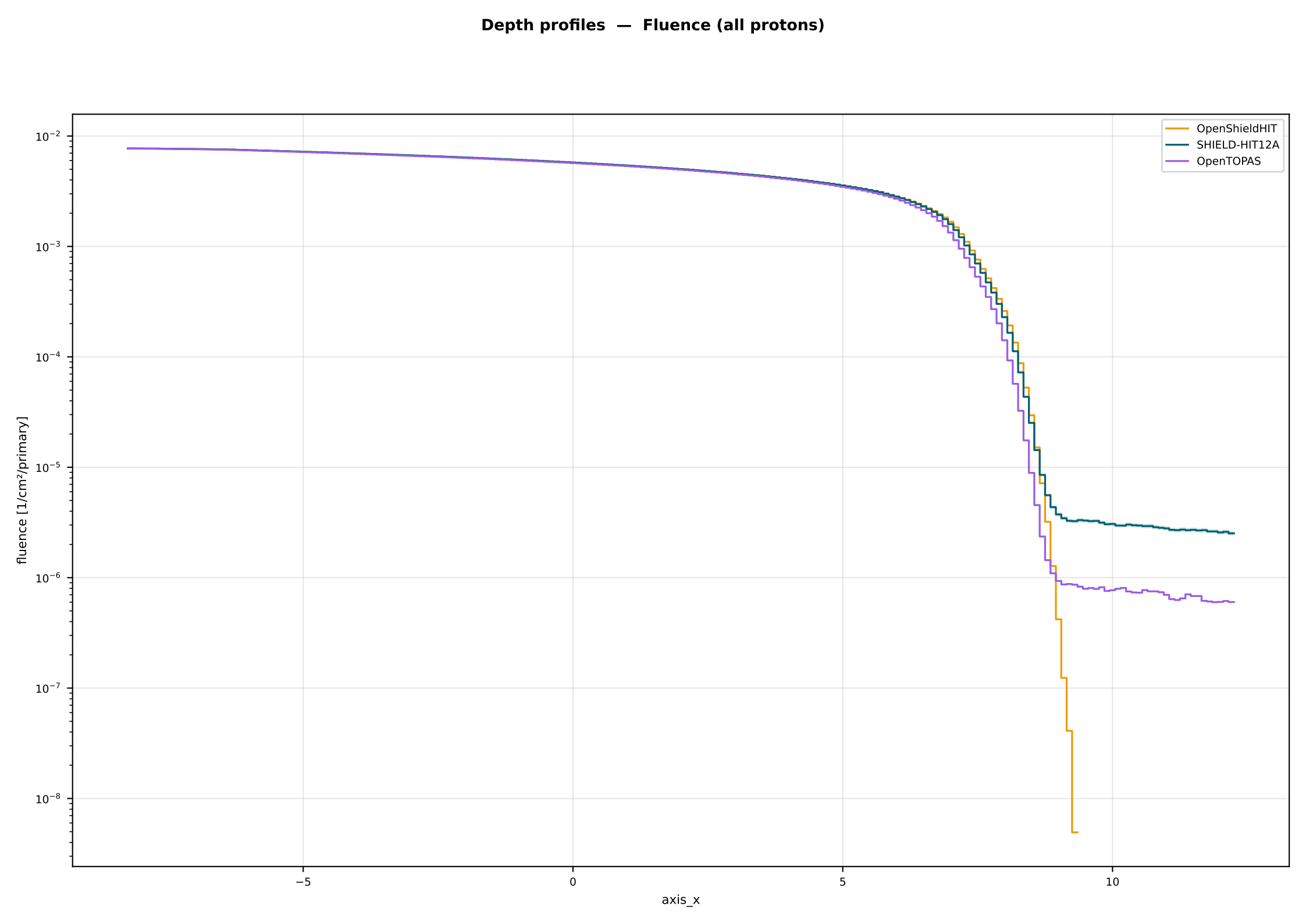

Depth profiles — Fluence (alpha particles)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence [1/cm²/primary]
axis_x
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
−5
0
5
10

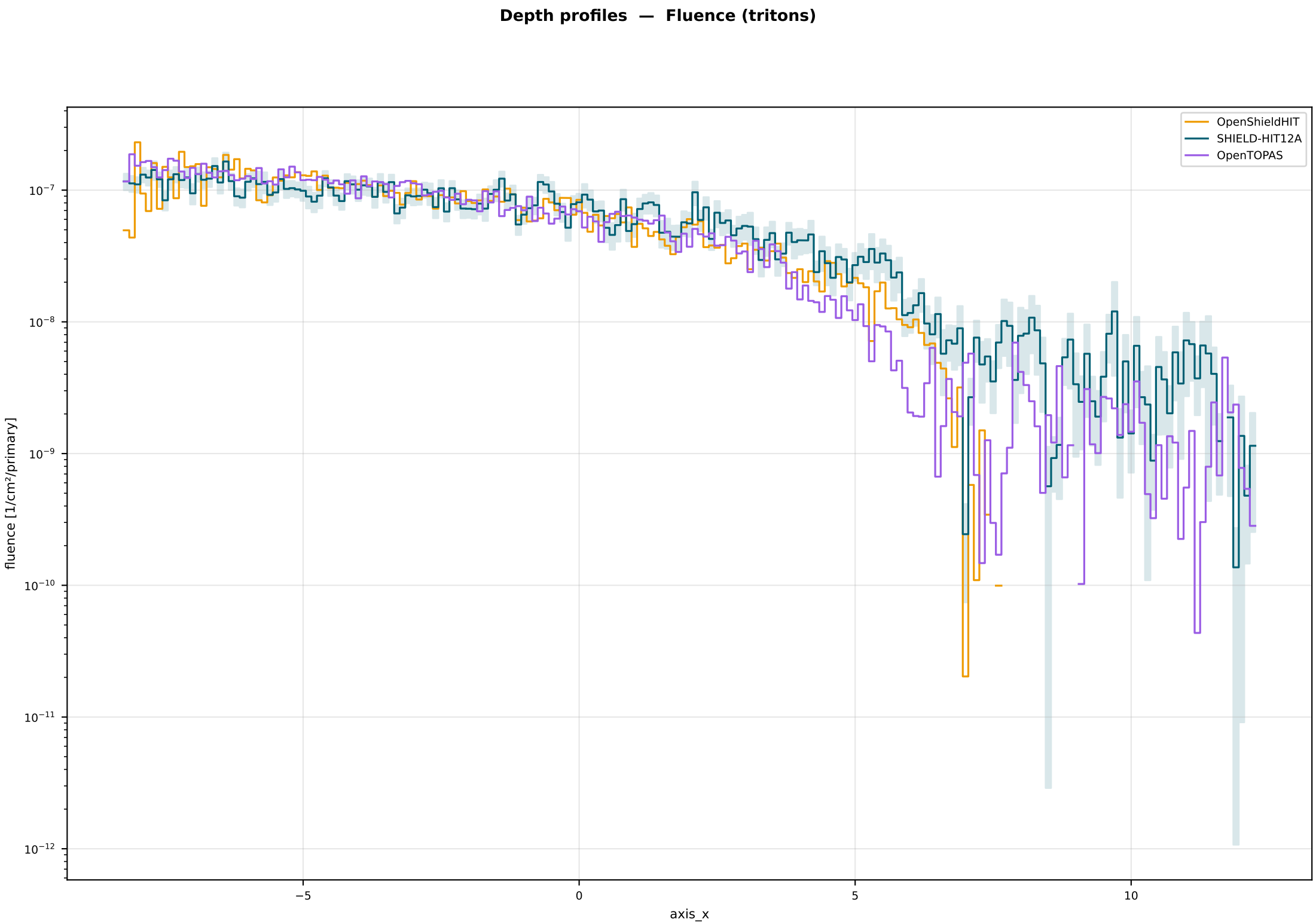

Depth profiles — Fluence (deuterons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence [1/cm²/primary]
10^{-6}
10^{-7}
10^{-8}
10^{-9}
−5
0
5
10
axis_x

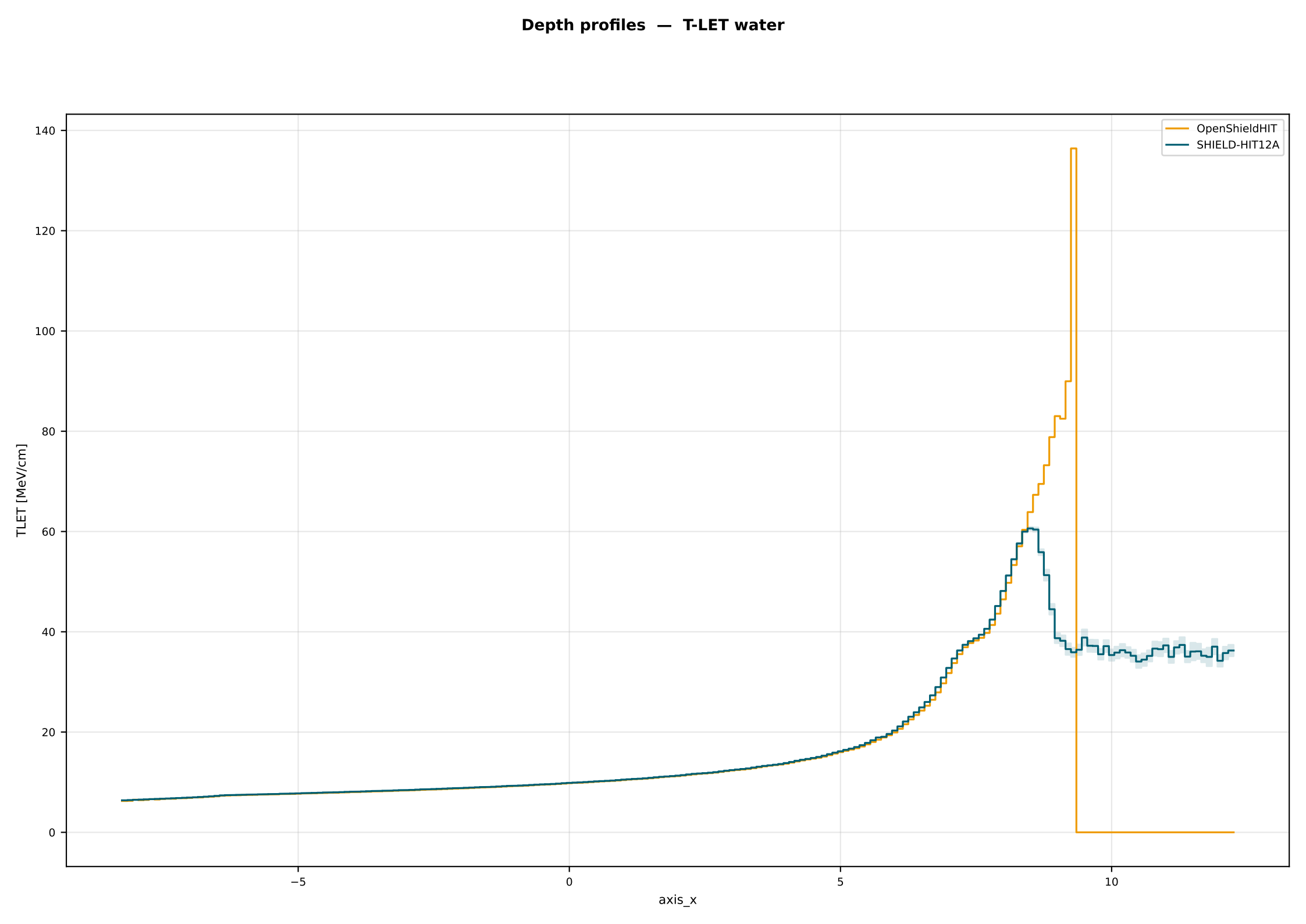

Depth profiles — Fluence (helium-3)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence [1/cm²/primary]
axis_x
10⁻⁶
10⁻⁹
10⁻¹²
10⁻¹⁵
10⁻¹⁸
10⁻²¹
10⁻²⁴
−7.5
−5.0
−2.5
0.0
2.5
5.0
7.5
10.0
12.5


Depth profiles — Fluence (heavy recoils/fragments)
OpenShieldHIT
SHIELD-HIT12A
fluence [1/cm²/primary]
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
−5
0
5
10
axis_x

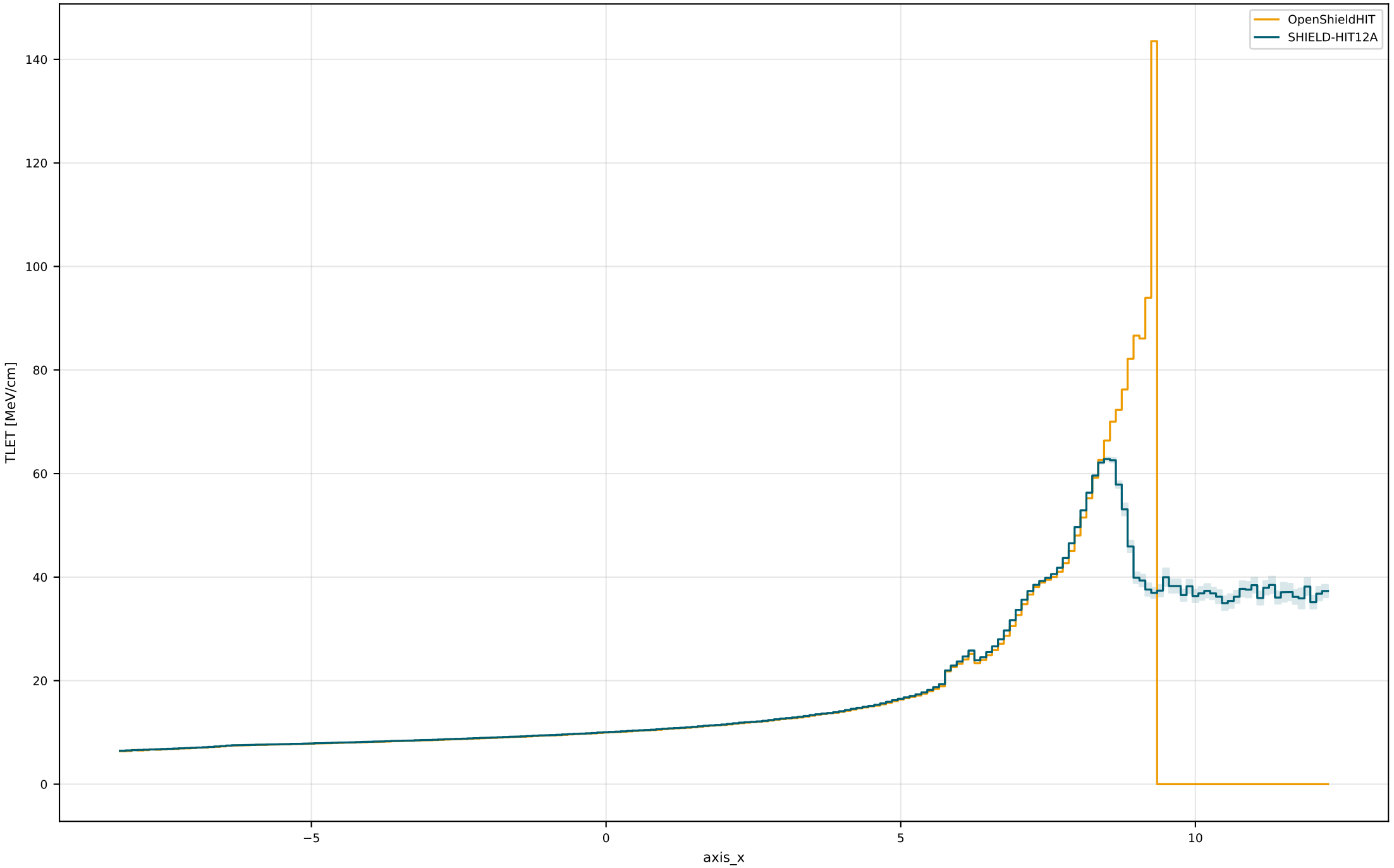

Depth profiles — Fluence (primary protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence [1/cm²/primary]
10^{-3}
10^{-6}
10^{-9}
10^{-12}
10^{-15}
10^{-18}
10^{-21}
10^{-24}
−5
0
5
10
axis_x

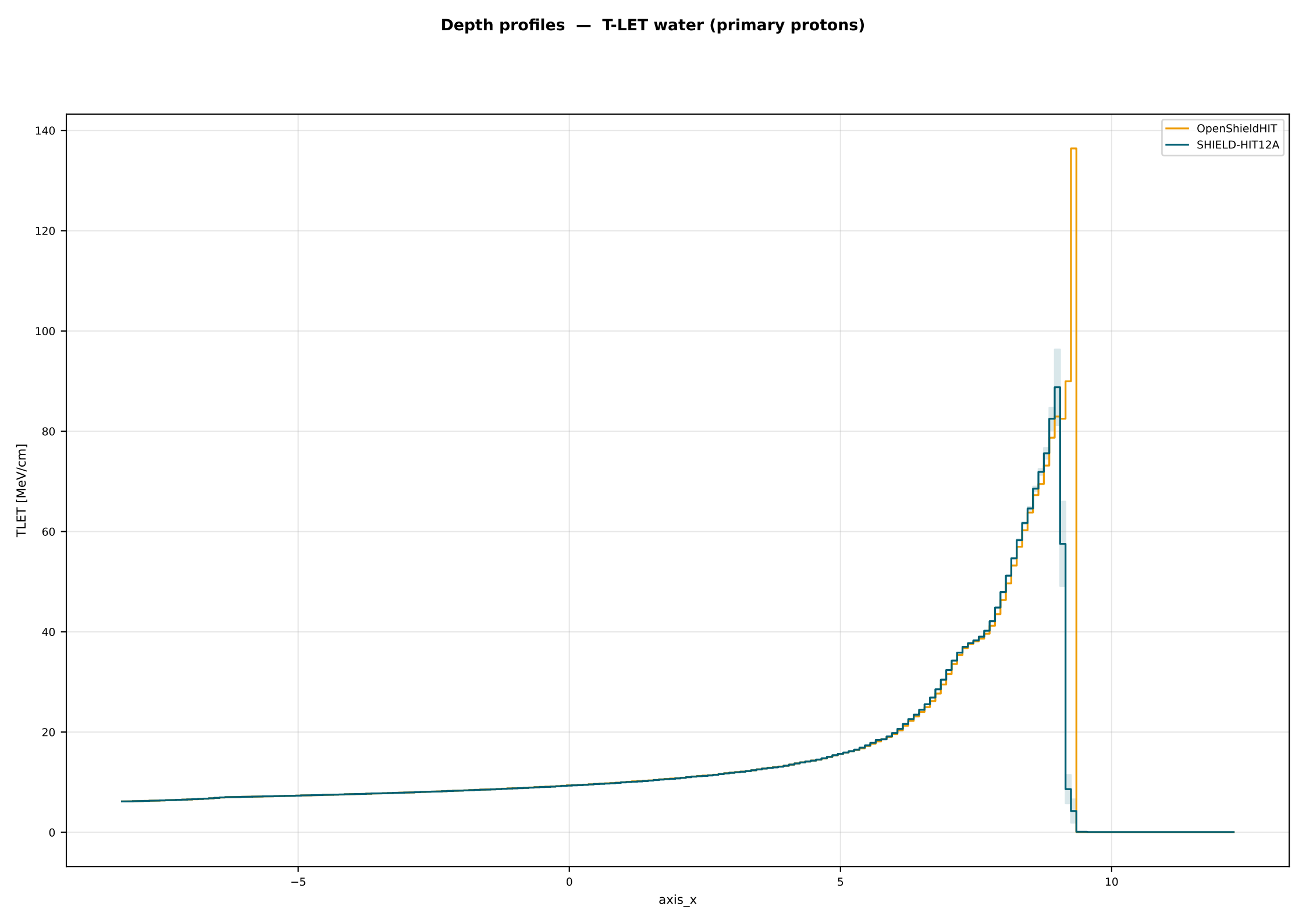

Depth profiles — Fluence (all protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence [1/cm²/primary]
axis_x
10⁻²
10⁻³
10⁻⁴
10⁻⁵
10⁻⁶
10⁻⁷
10⁻⁸
−5
0
5
10

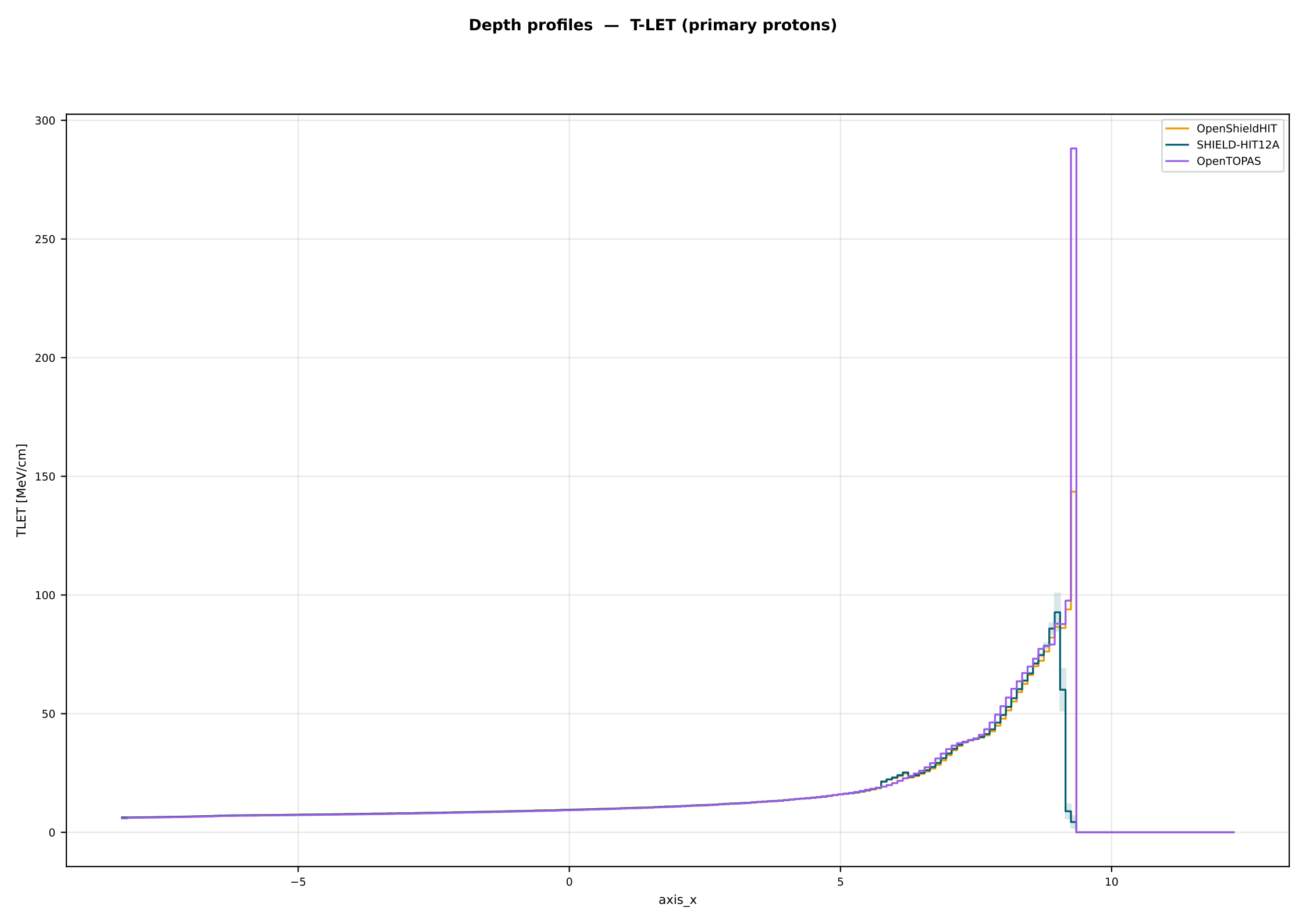

Depth profiles — Fluence (tritons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence [1/cm²/primary]
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
10^{-12}
−5
0
5
10
axis_x

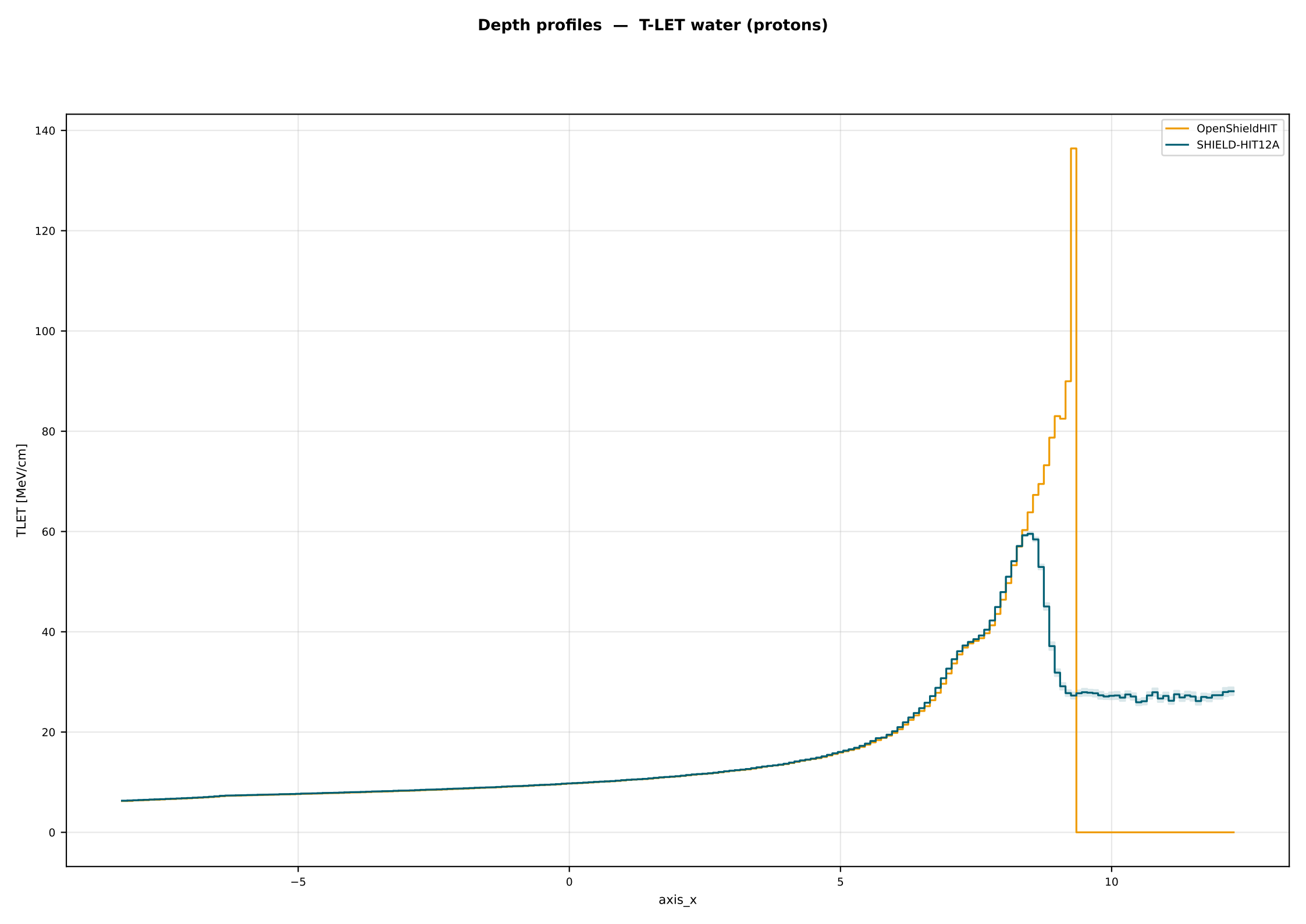

Depth profiles — T-LET water
OpenShieldHIT
SHIELD-HIT12A
TLET [MeV/cm]
axis_x
140
120
100
80
60
40
20
0
−5
0
5
10

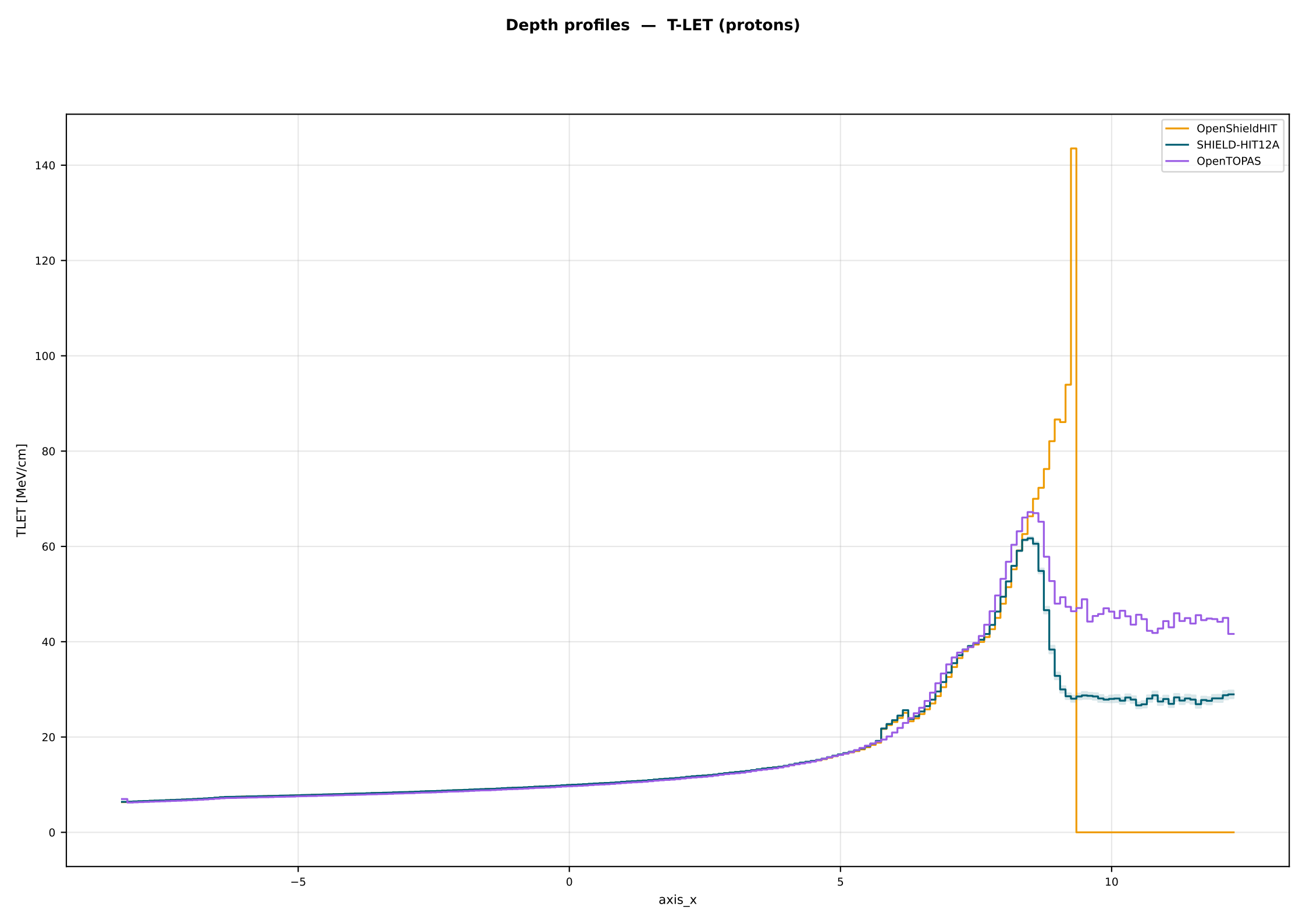
Depth profiles — T-LET



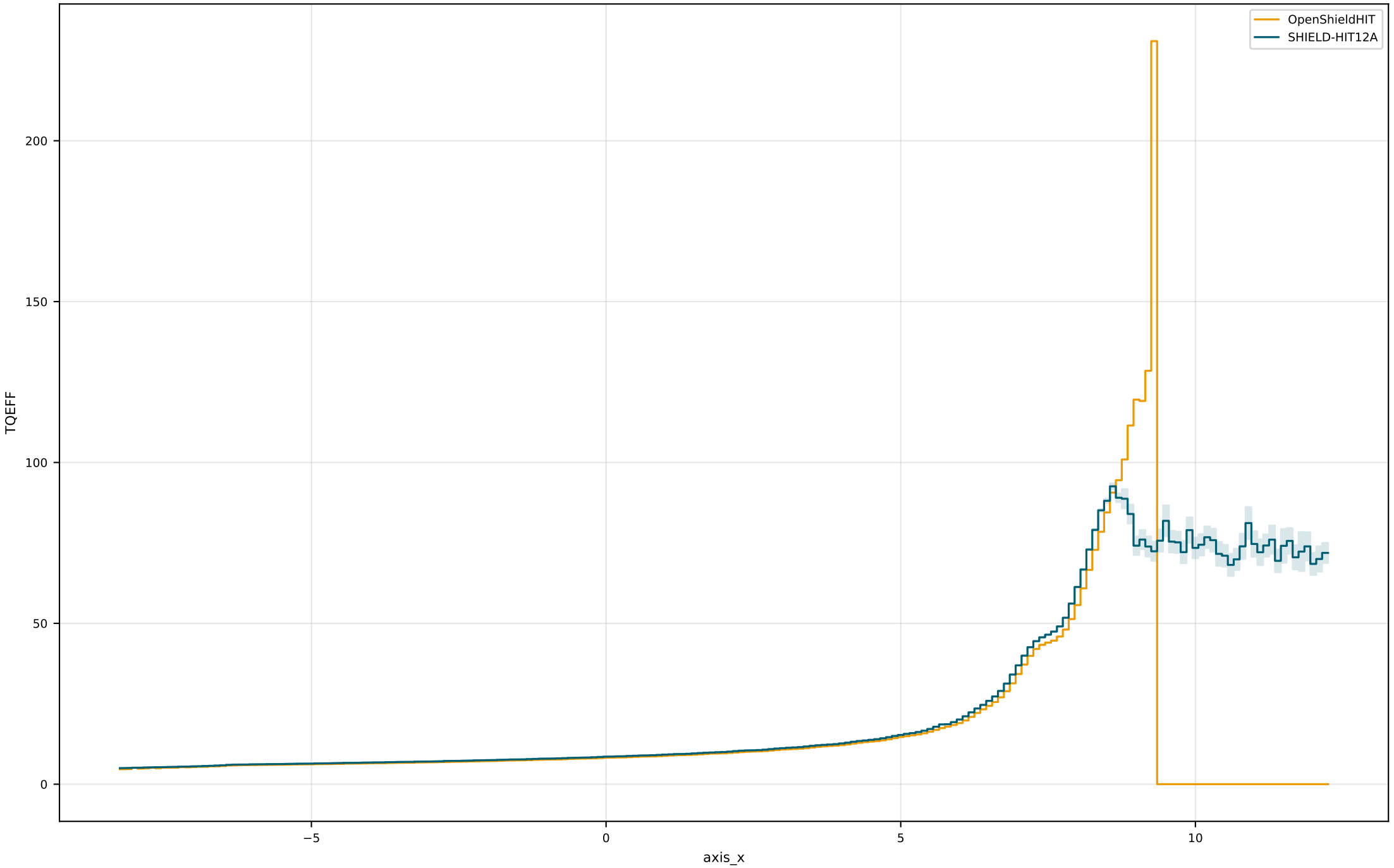

Depth profiles — T-LET water (primary protons)
OpenShieldHIT
SHIELD-HIT12A
TLET [MeV/cm]
axis_x
140
120
100
80
60
40
20
0
−5
0
5
10

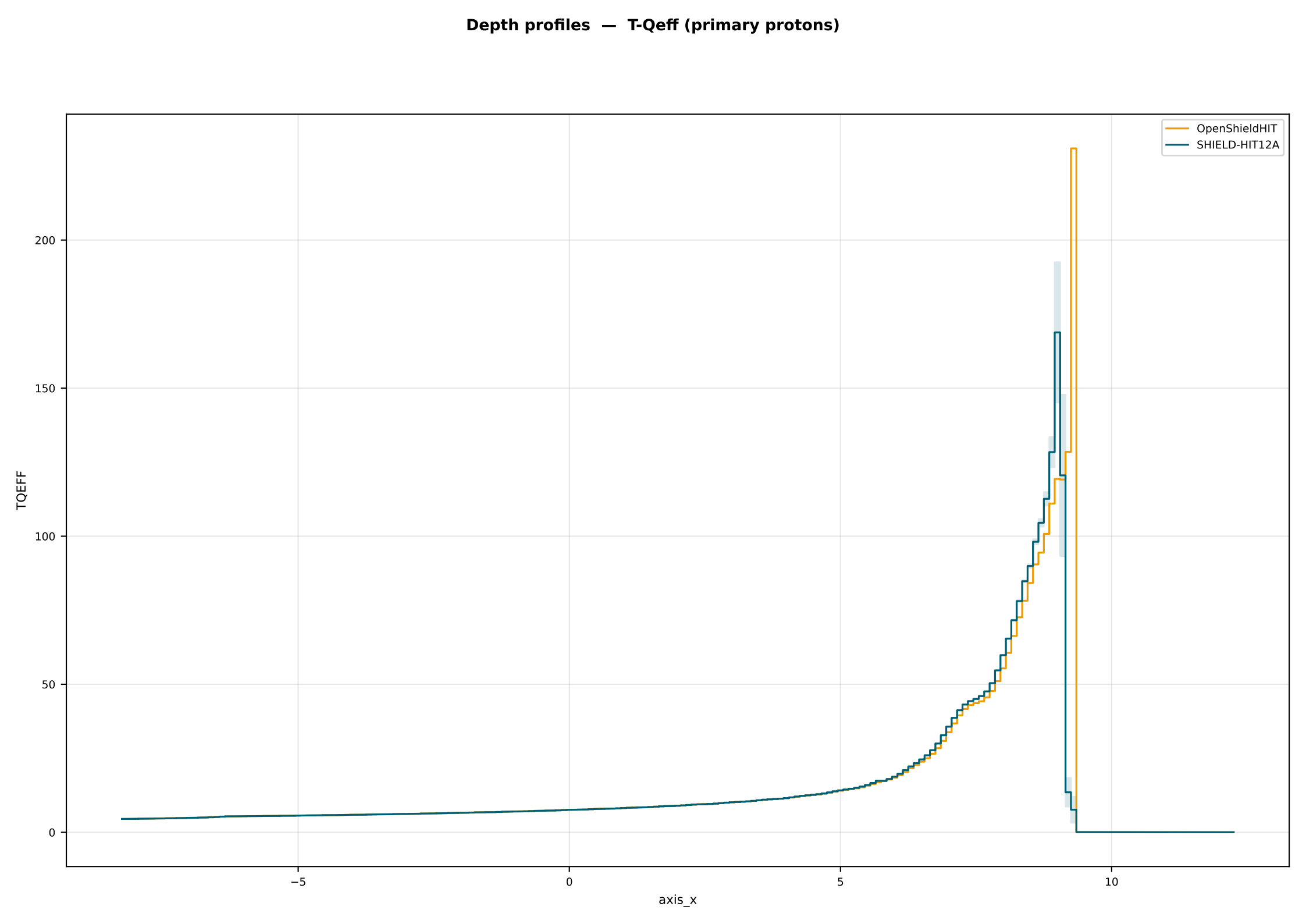

Depth profiles — T-LET (primary protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
TLET [MeV/cm]
300
250
200
150
100
50
0
−5
0
5
10
axis_x

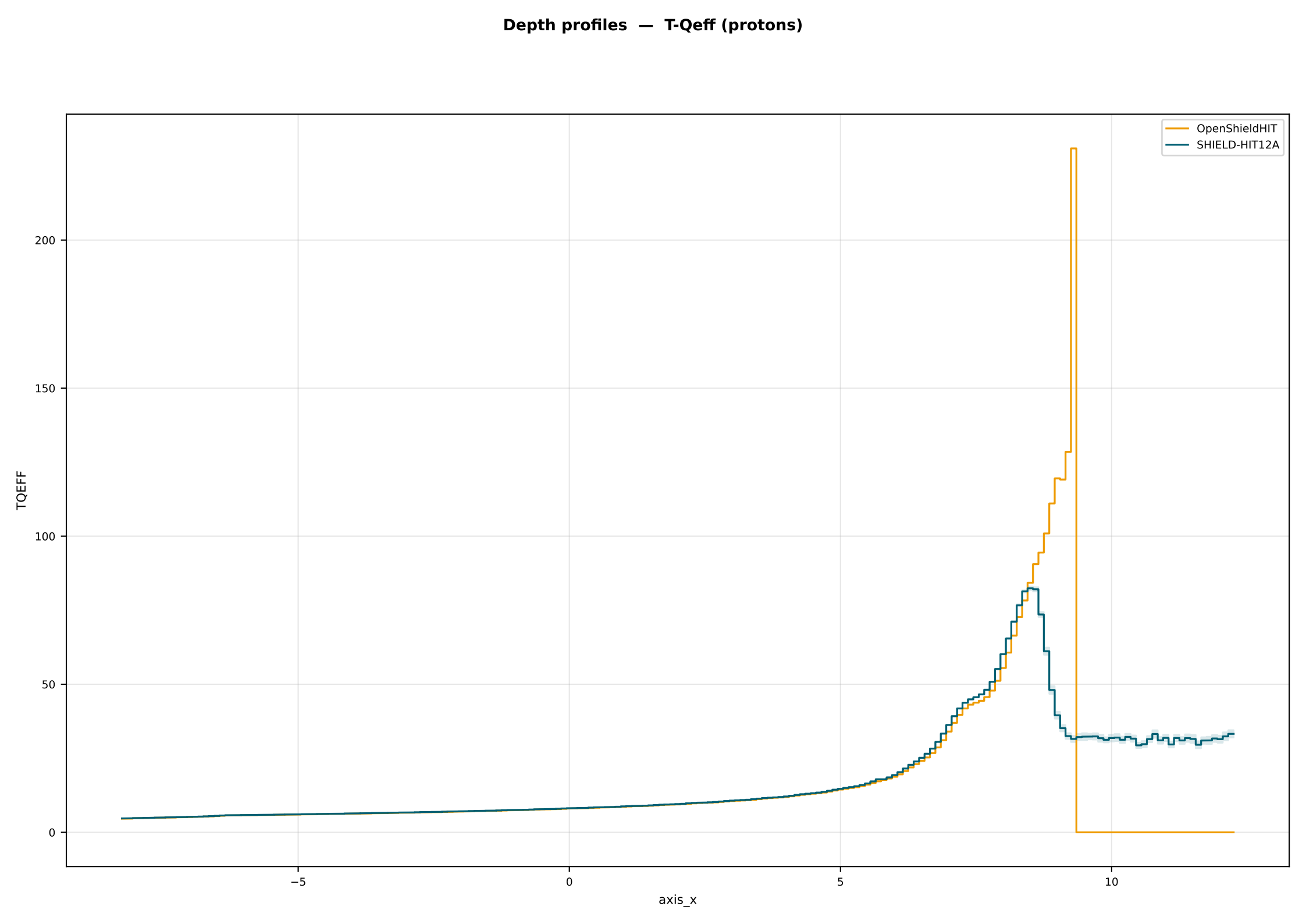

Depth profiles — T-LET water (protons)
OpenShieldHIT
SHIELD-HIT12A
TLET [MeV/cm]
axis_x
140
120
100
80
60
40
20
0
−5
0
5
10

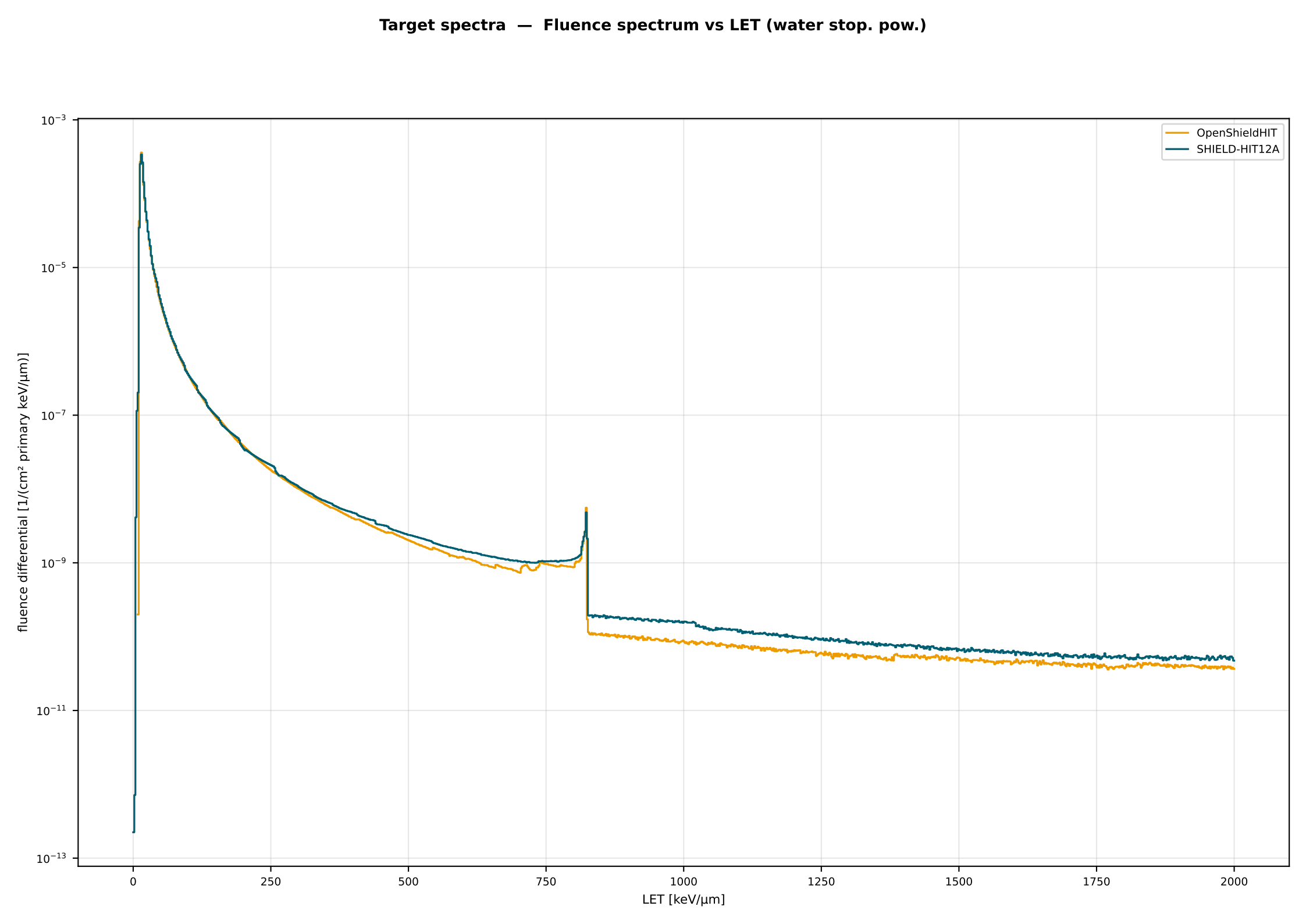

Depth profiles — T-LET (protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
TLET [MeV/cm]
axis_x
0
20
40
60
80
100
120
140
−5
0
5
10

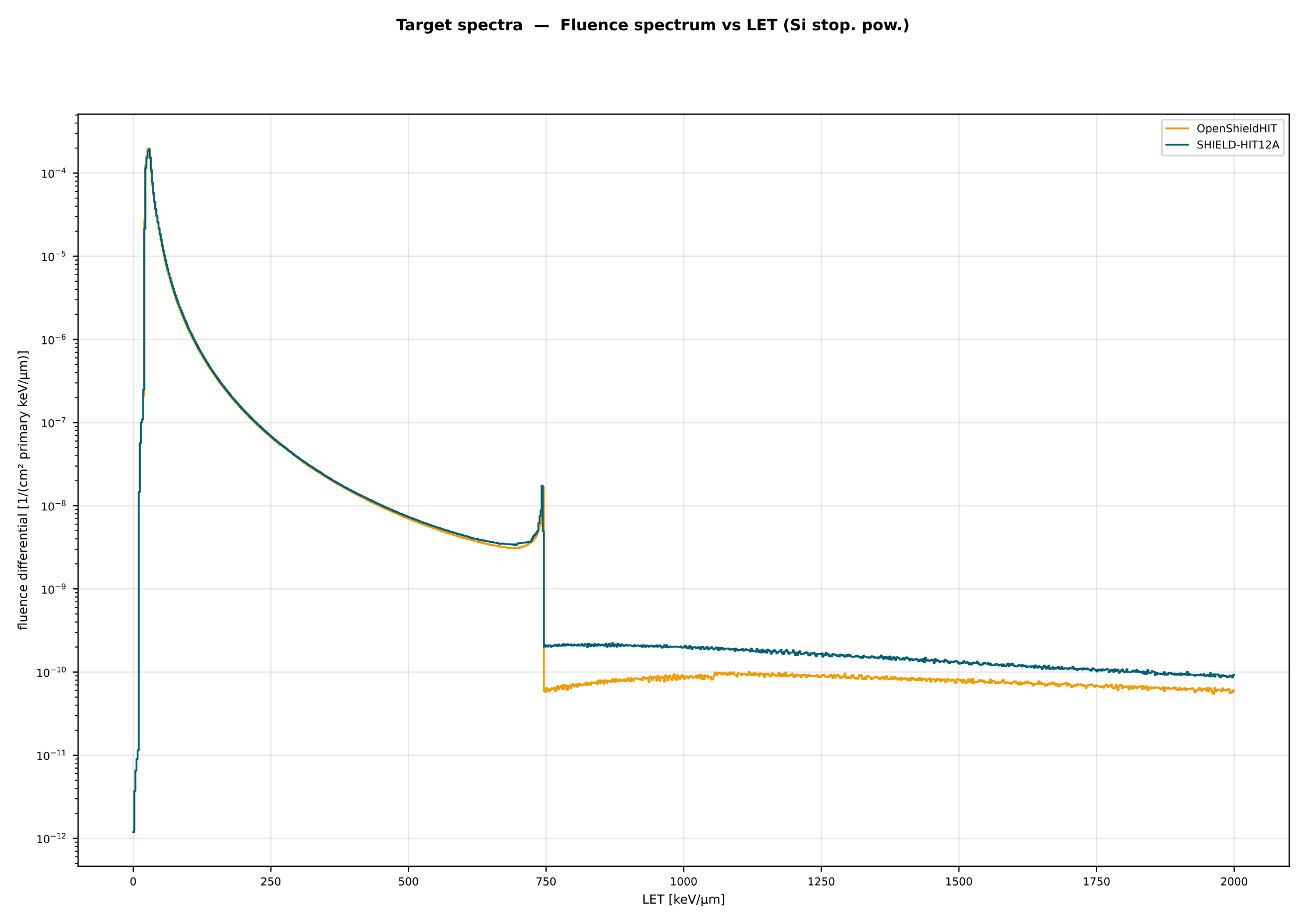
Depth profiles — T-Qeff

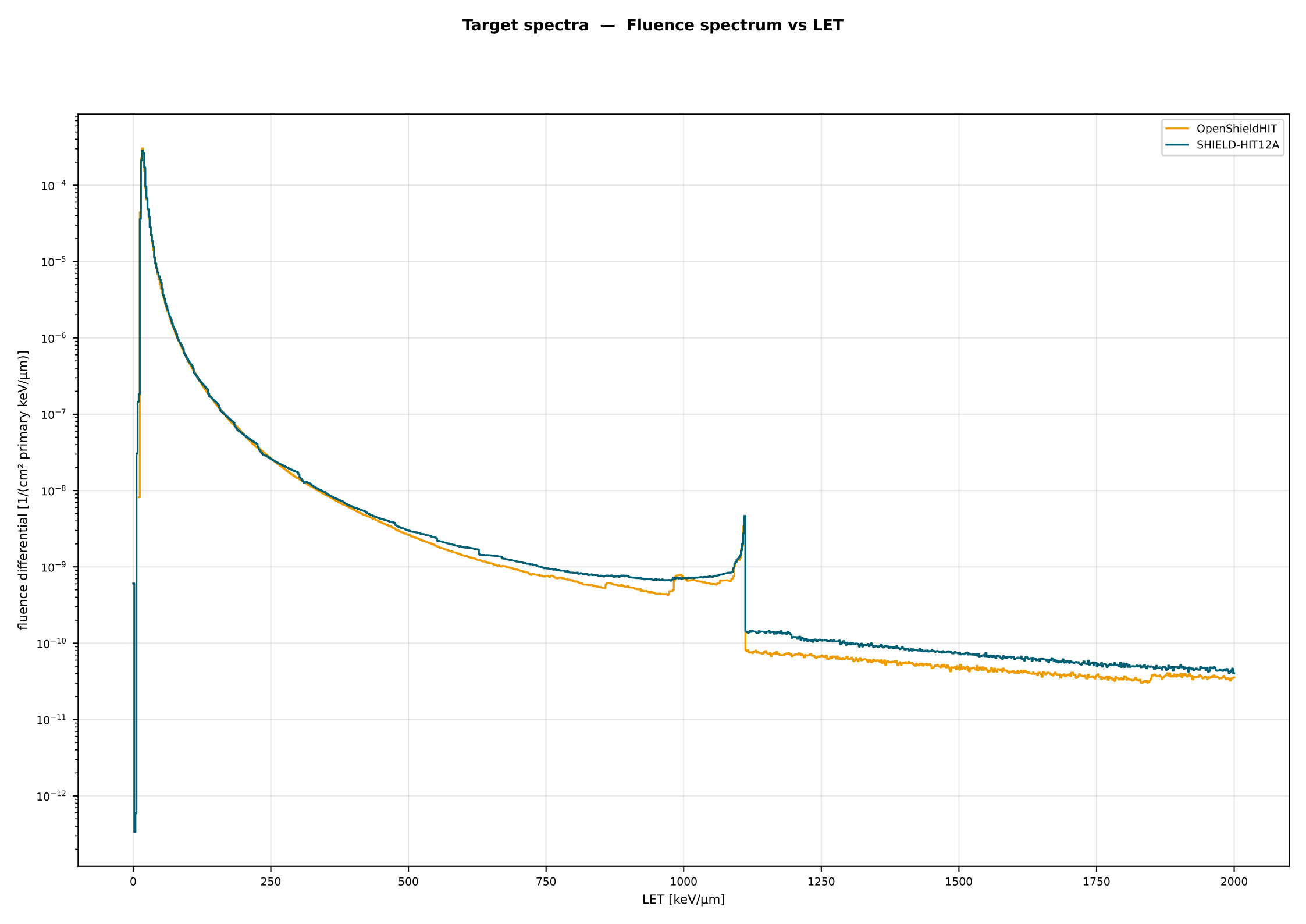


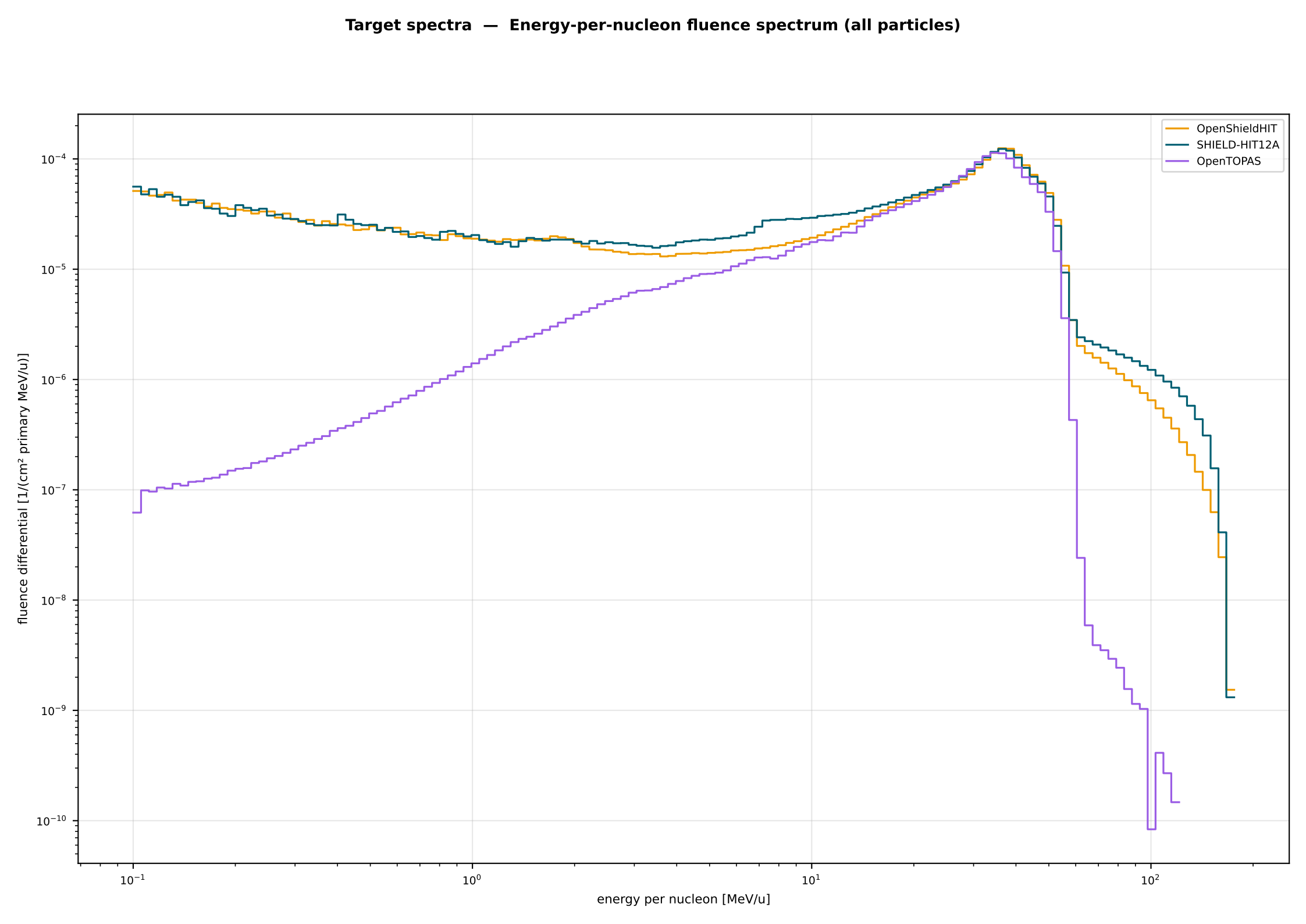

Depth profiles — T-Qeff (primary protons)
OpenShieldHIT
SHIELD-HIT12A
TQEFF
axis_x
200
150
100
50
0
−5
0
5
10

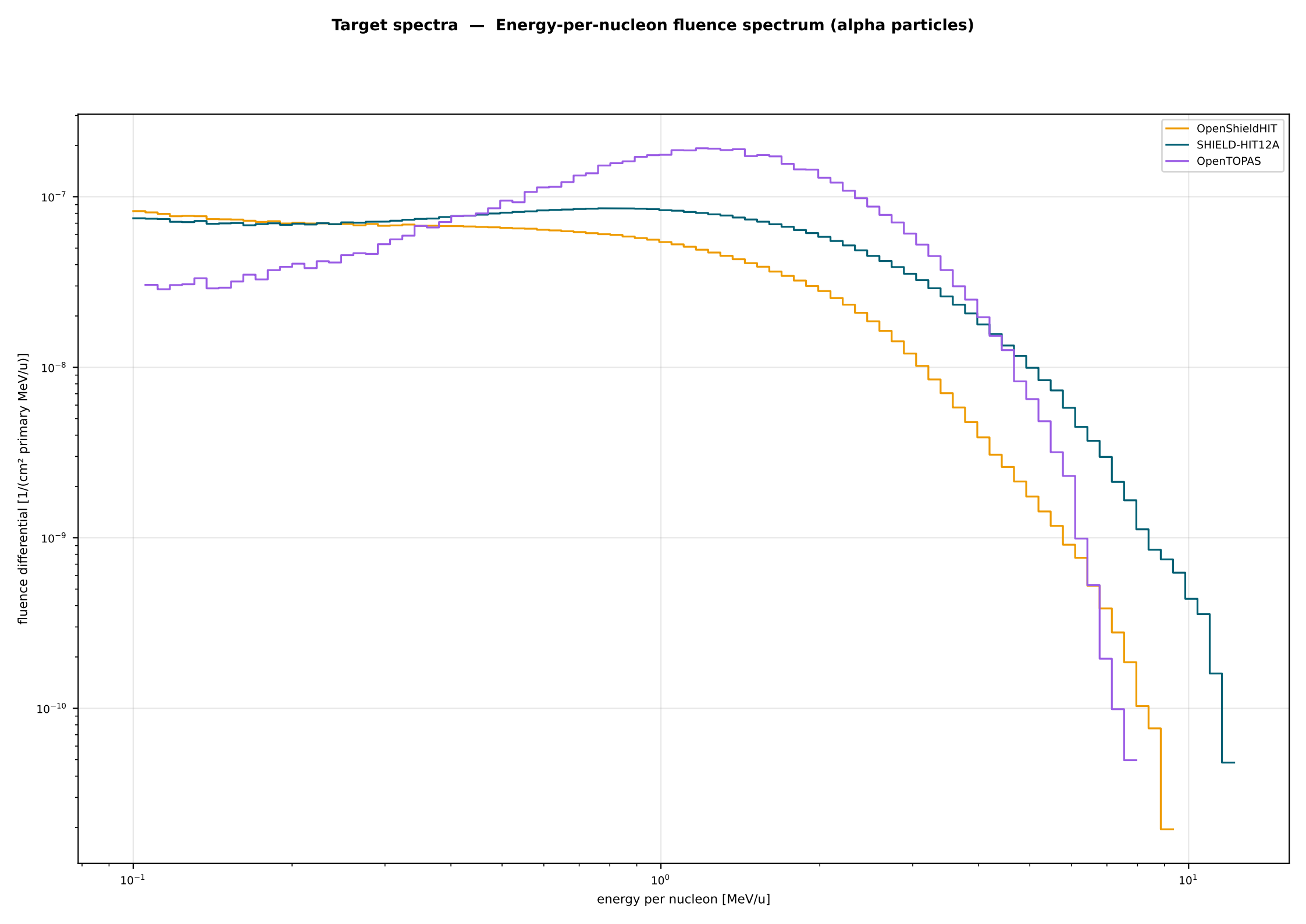

Depth profiles — T-Qeff (protons)
OpenShieldHIT
SHIELD-HIT12A
TQEFF
200
150
100
50
0
−5
0
5
10
axis_x

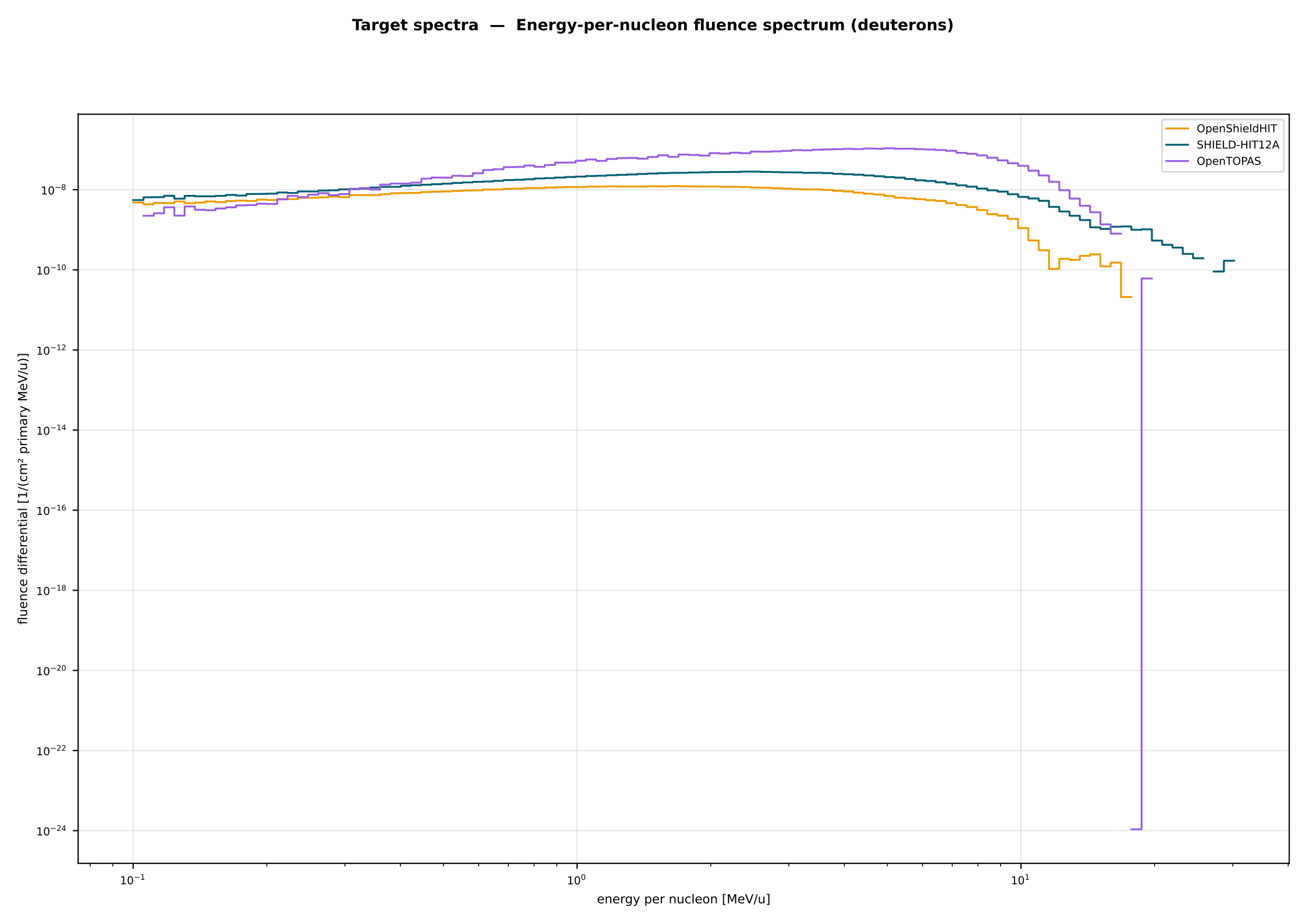

Target spectra — Fluence spectrum vs LET (water stop. pow.)
OpenShieldHIT
SHIELD-HIT12A
fluence differential [1/(cm² primary keV/µm)]
LET [keV/µm]
10⁻³
10⁻⁵
10⁻⁷
10⁻⁹
10⁻¹¹
10⁻¹³
0
250
500
750
1000
1250
1500
1750
2000

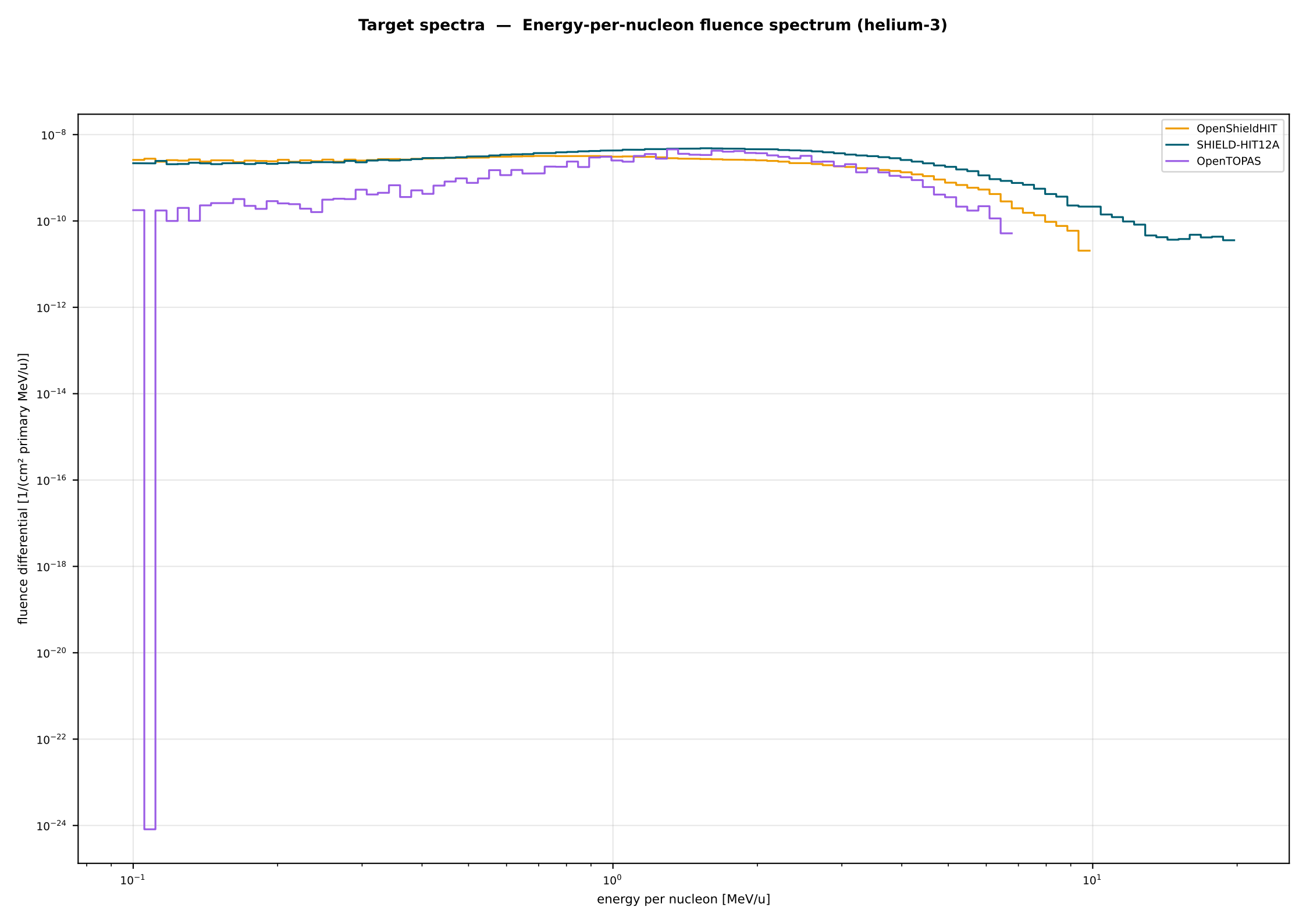

Target spectra — Fluence spectrum vs LET (Si stop. pow.)
OpenShieldHIT
SHIELD-HIT12A
fluence differential [1/(cm² primary keV/µm)]
LET [keV/µm]
10⁻⁴
10⁻⁵
10⁻⁶
10⁻⁷
10⁻⁸
10⁻⁹
10⁻¹⁰
10⁻¹¹
10⁻¹²
0
250
500
750
1000
1250
1500
1750
2000

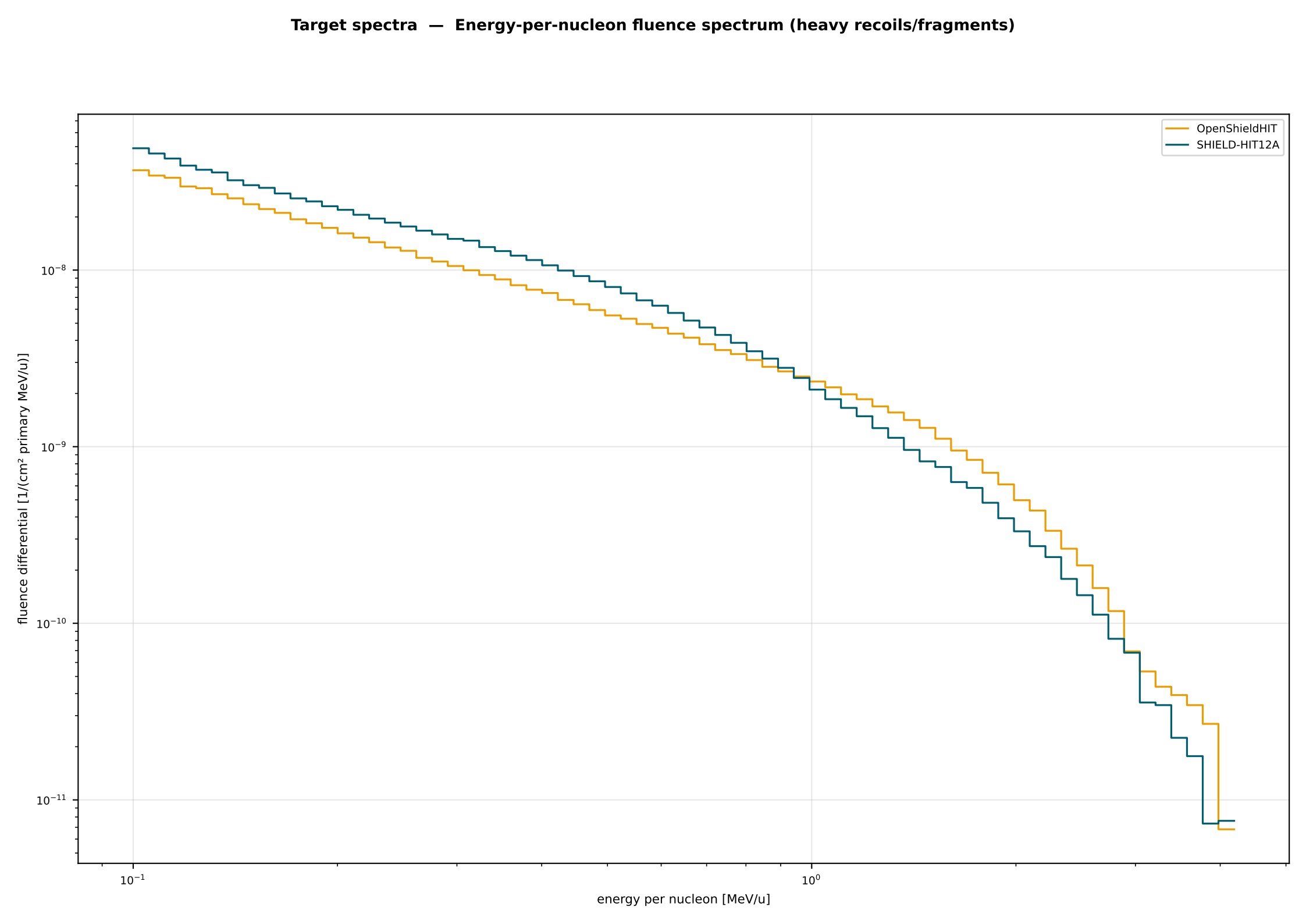

Target spectra — Fluence spectrum vs LET
OpenShieldHIT
SHIELD-HIT12A
fluence differential [1/(cm² primary keV/µm)]
LET [keV/µm]
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
10^{-12}
0
250
500
750
1000
1250
1500
1750
2000

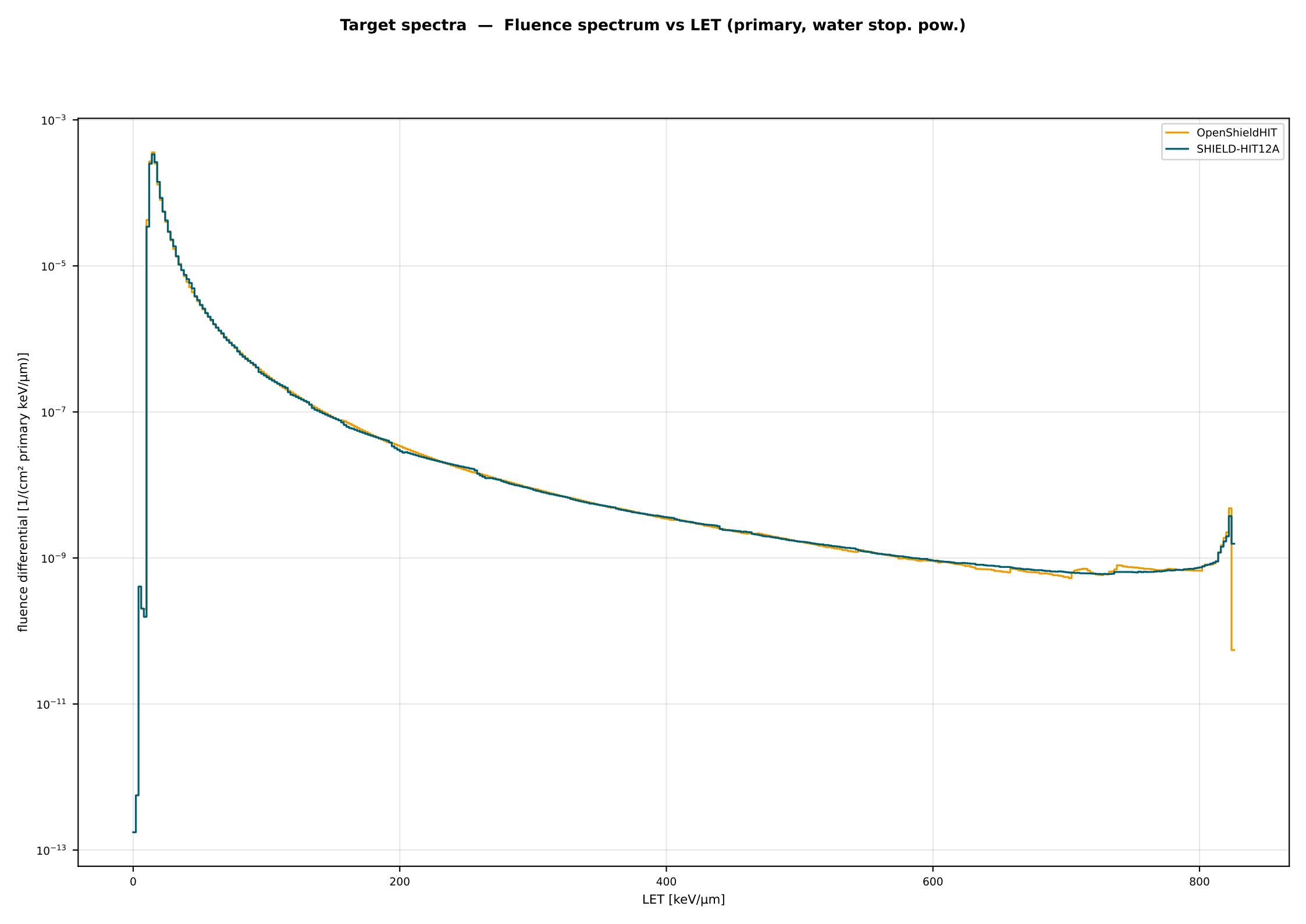

Target spectra — Energy-per-nucleon fluence spectrum (all particles)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence differential [1/(cm² primary MeV/u)]
energy per nucleon [MeV/u]
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-1}
10^{0}
10^{1}
10^{2}

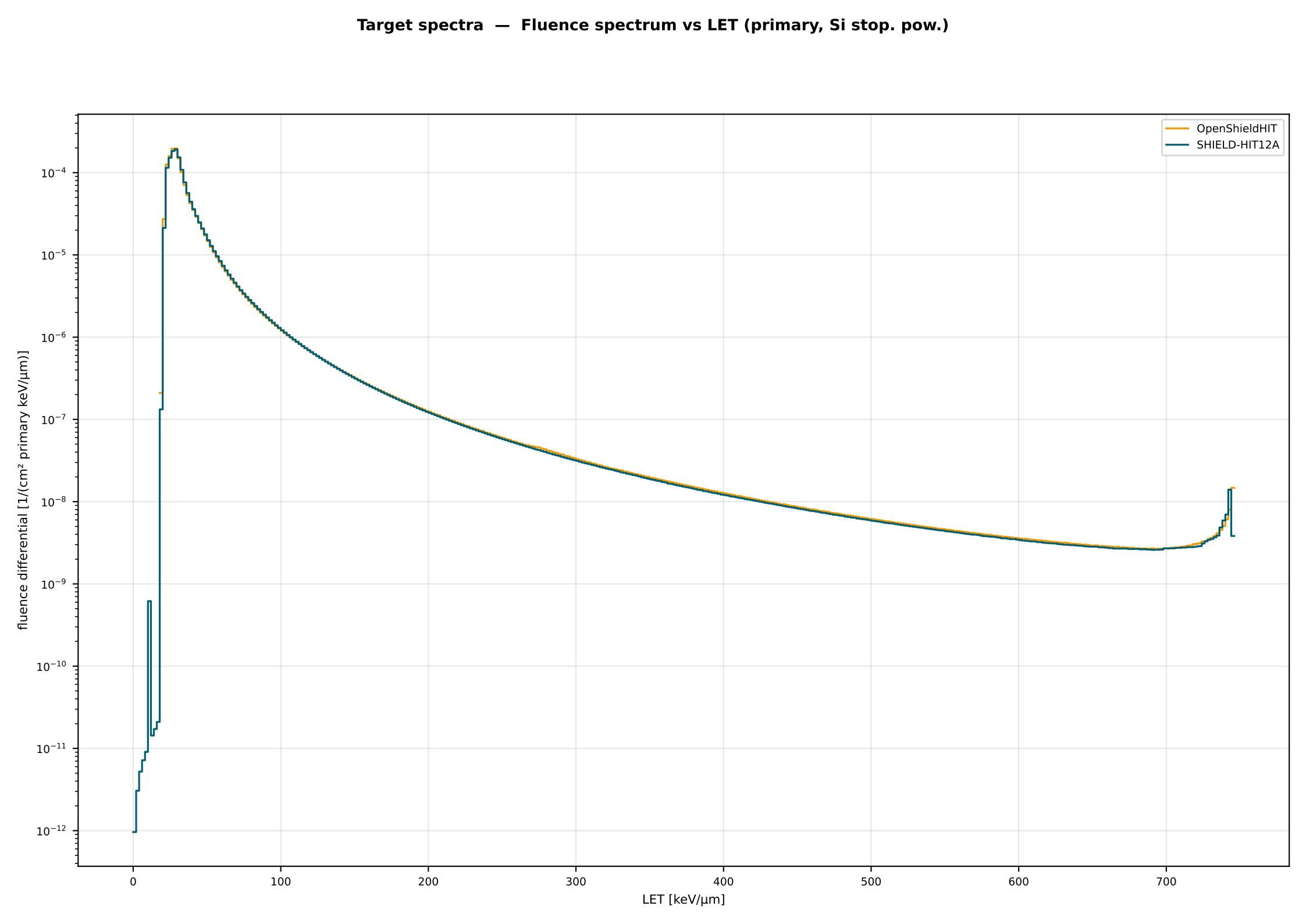

Target spectra — Energy-per-nucleon fluence spectrum (alpha particles)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence differential [1/(cm² primary MeV/u)]
energy per nucleon [MeV/u]
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-1}
10^{0}
10^{1}


Target spectra — Energy-per-nucleon fluence spectrum (deuterons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence differential [1/(cm² primary MeV/u)]
energy per nucleon [MeV/u]
10^{-8}
10^{-10}
10^{-12}
10^{-14}
10^{-16}
10^{-18}
10^{-20}
10^{-22}
10^{-24}
10^{-1}
10^{0}
10^{1}

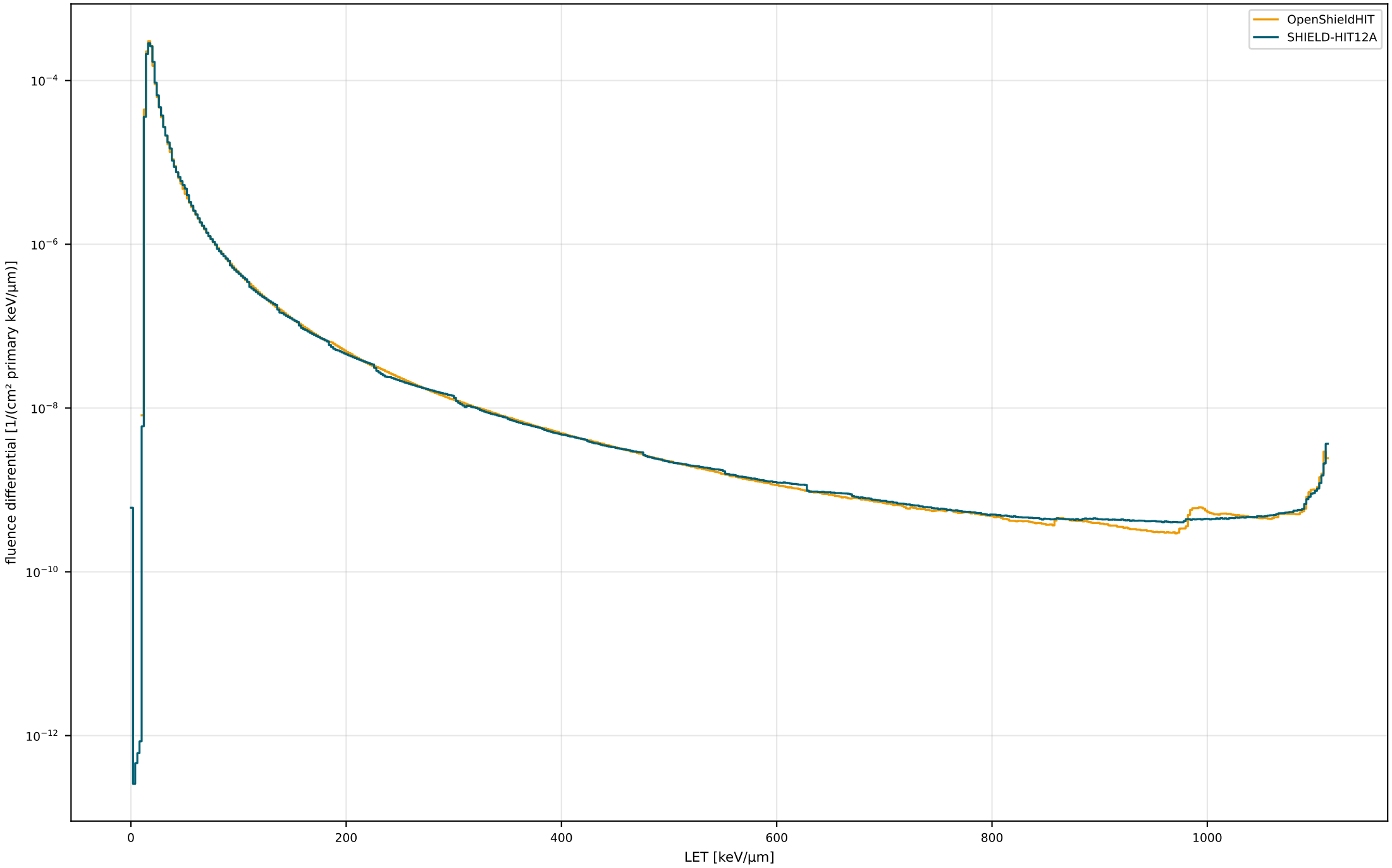

Target spectra — Energy-per-nucleon fluence spectrum (helium-3)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence differential [1/(cm² primary MeV/u)]
energy per nucleon [MeV/u]
10^{-8}
10^{-10}
10^{-12}
10^{-14}
10^{-16}
10^{-18}
10^{-20}
10^{-22}
10^{-24}
10^{-1}
10^{0}
10^{1}

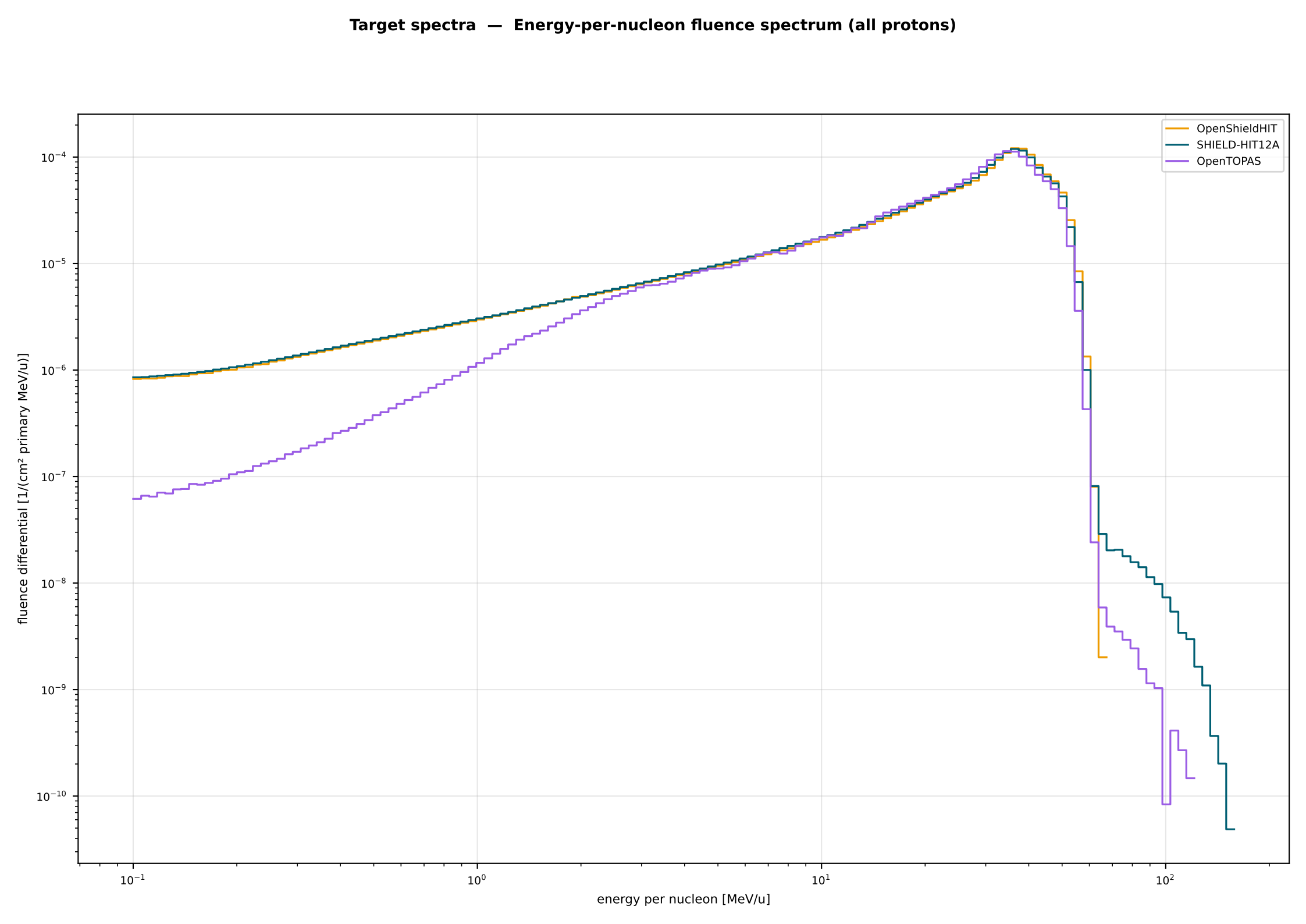

Target spectra — Energy-per-nucleon fluence spectrum (heavy recoils/fragments)
OpenShieldHIT
SHIELD-HIT12A
fluence differential [1/(cm² primary MeV/u)]
10^{-8}
10^{-9}
10^{-10}
10^{-11}
10^{-1}
10^{0}
energy per nucleon [MeV/u]

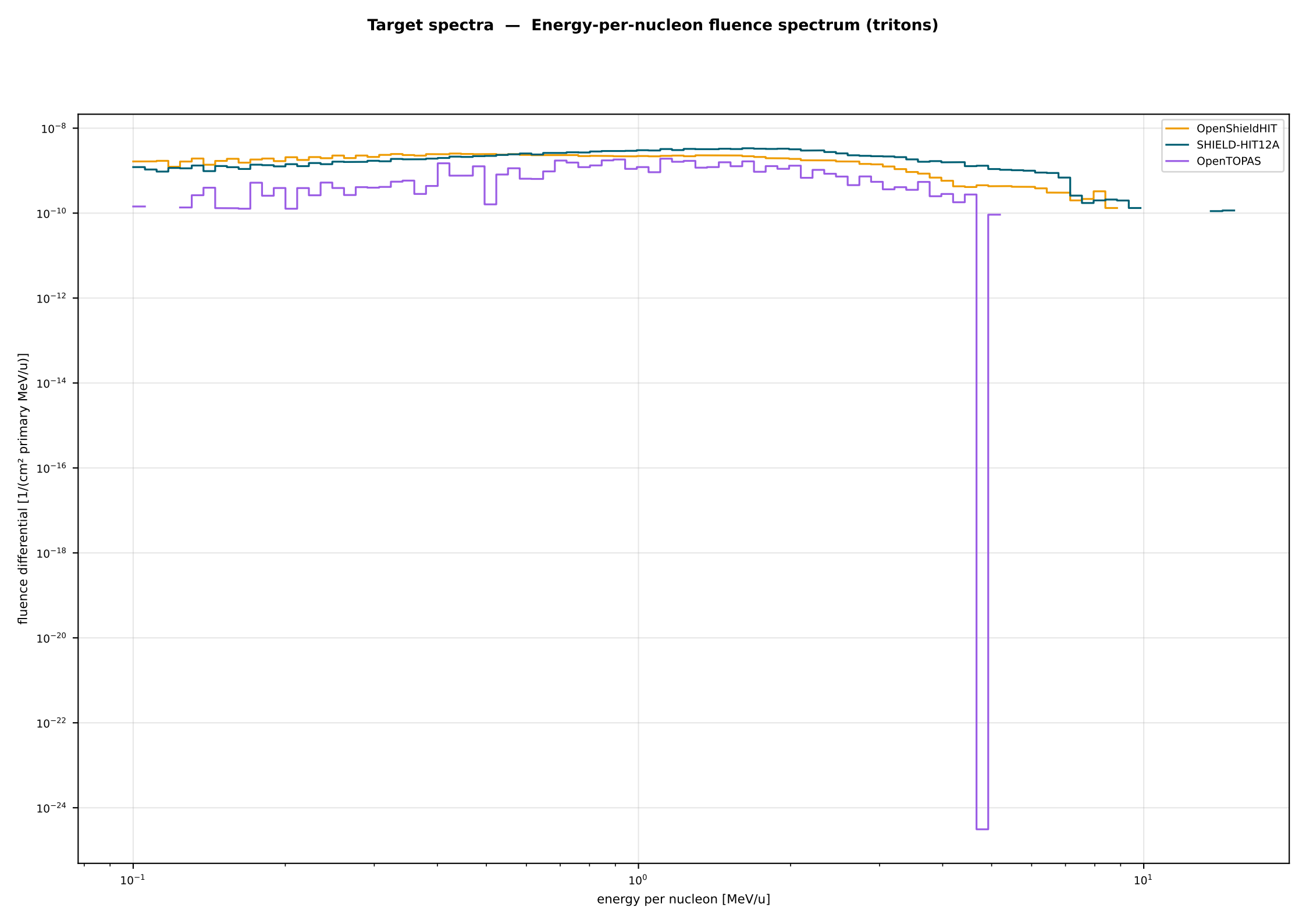

Target spectra — Fluence spectrum vs LET (primary, water stop. pow.)
OpenShieldHIT
SHIELD-HIT12A
fluence differential [1/(cm² primary keV/µm)]
LET [keV/µm]
10^{-3}
10^{-5}
10^{-7}
10^{-9}
10^{-11}
10^{-13}
0
200
400
600
800

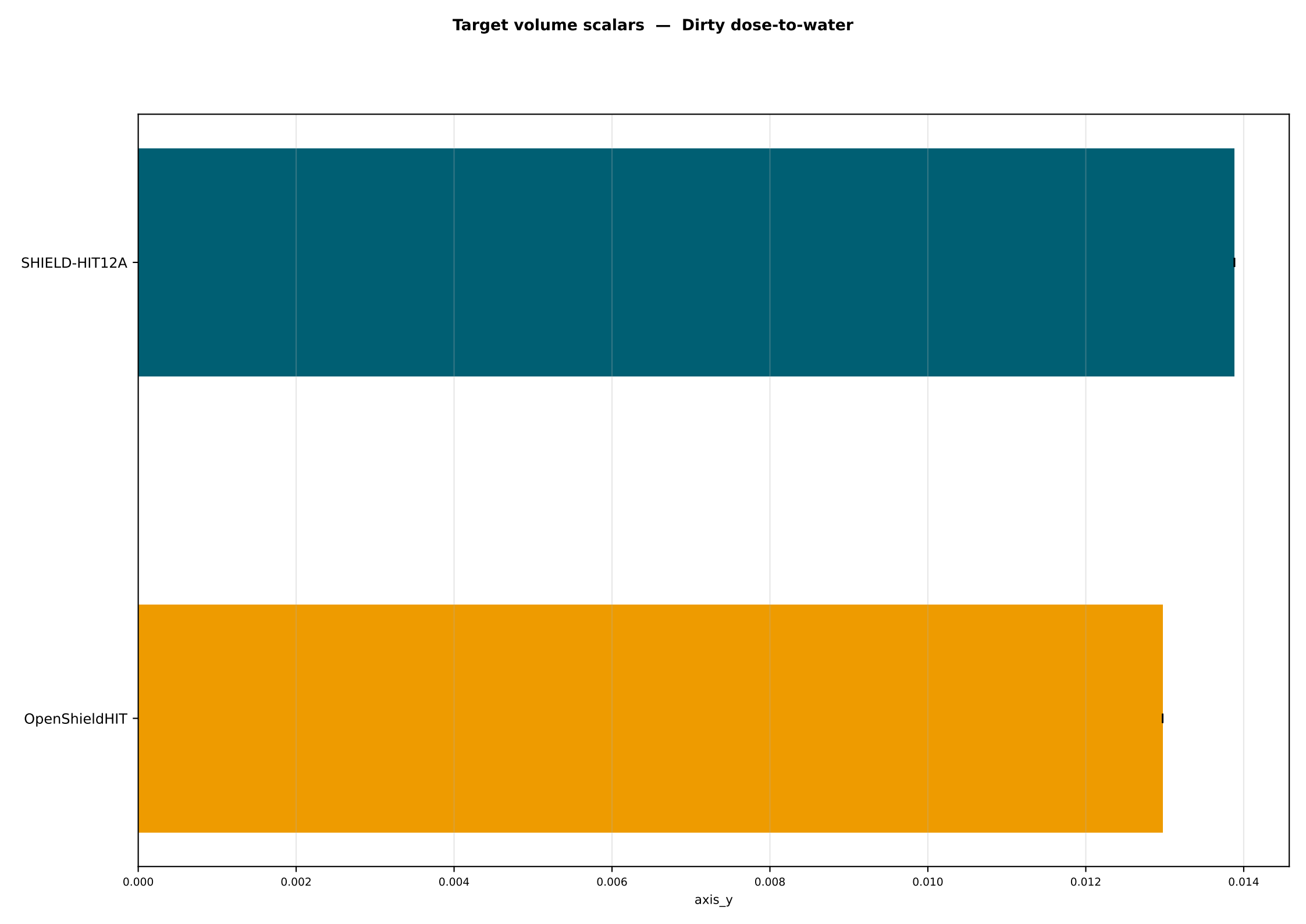

Target spectra — Fluence spectrum vs LET (primary, Si stop. pow.)
OpenShieldHIT
SHIELD-HIT12A
fluence differential [1/(cm² primary keV/µm)]
LET [keV/µm]
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
10^{-12}
0
100
200
300
400
500
600
700

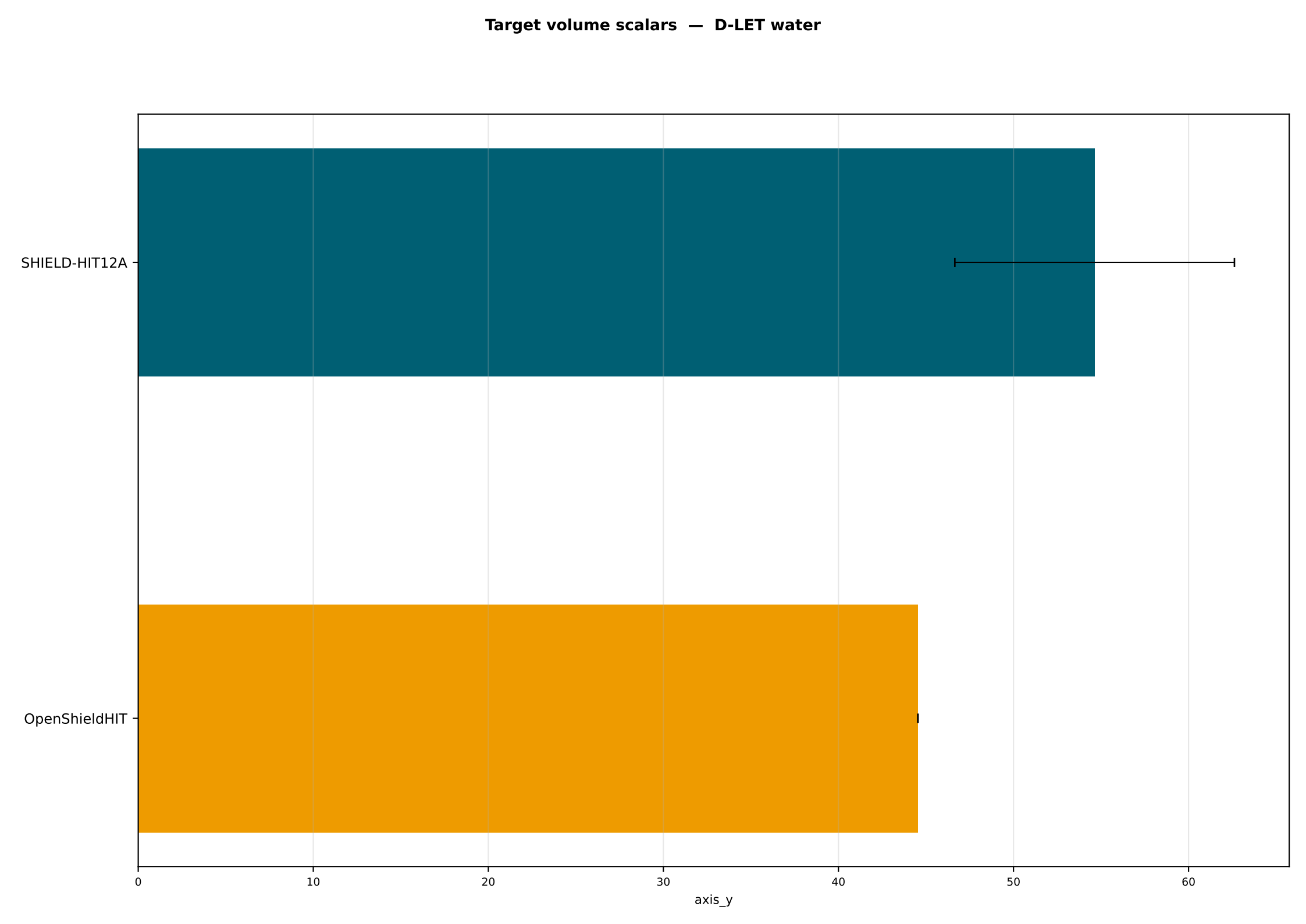
Target spectra — Fluence spectrum vs LET (primary)

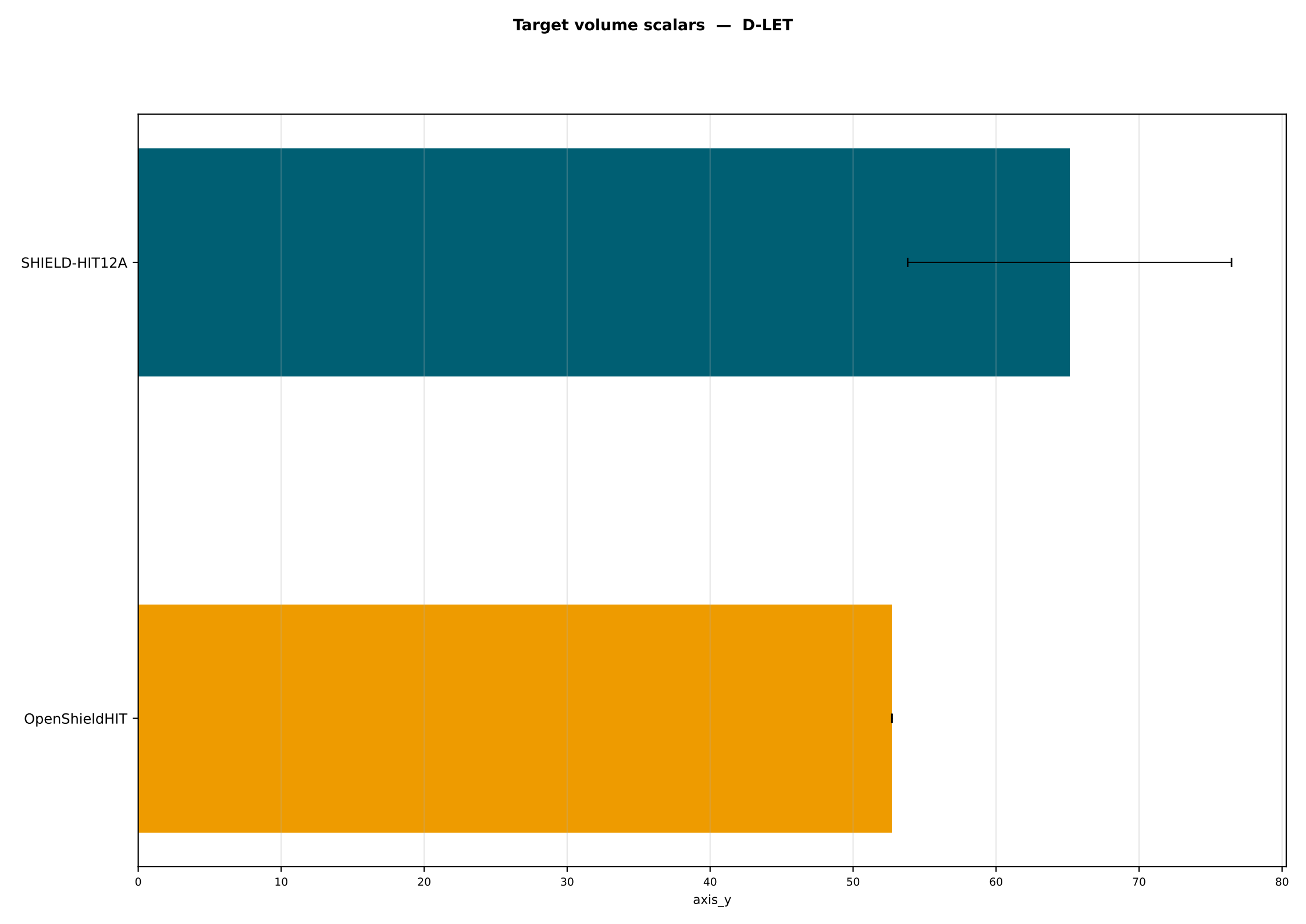


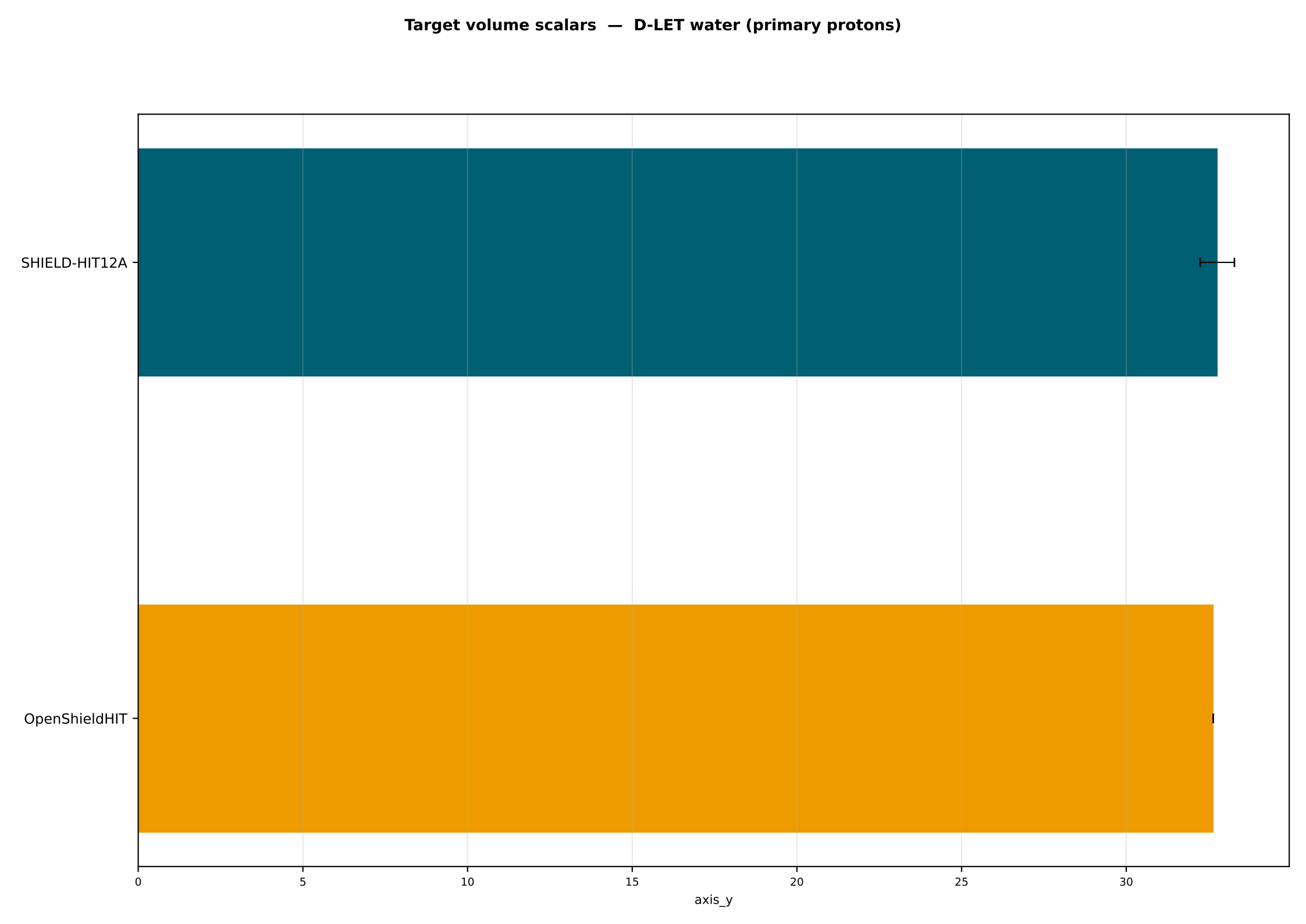

Target spectra — Energy-per-nucleon fluence spectrum (all protons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence differential [1/(cm² primary MeV/u)]
energy per nucleon [MeV/u]
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-1}
10^{0}
10^{1}
10^{2}

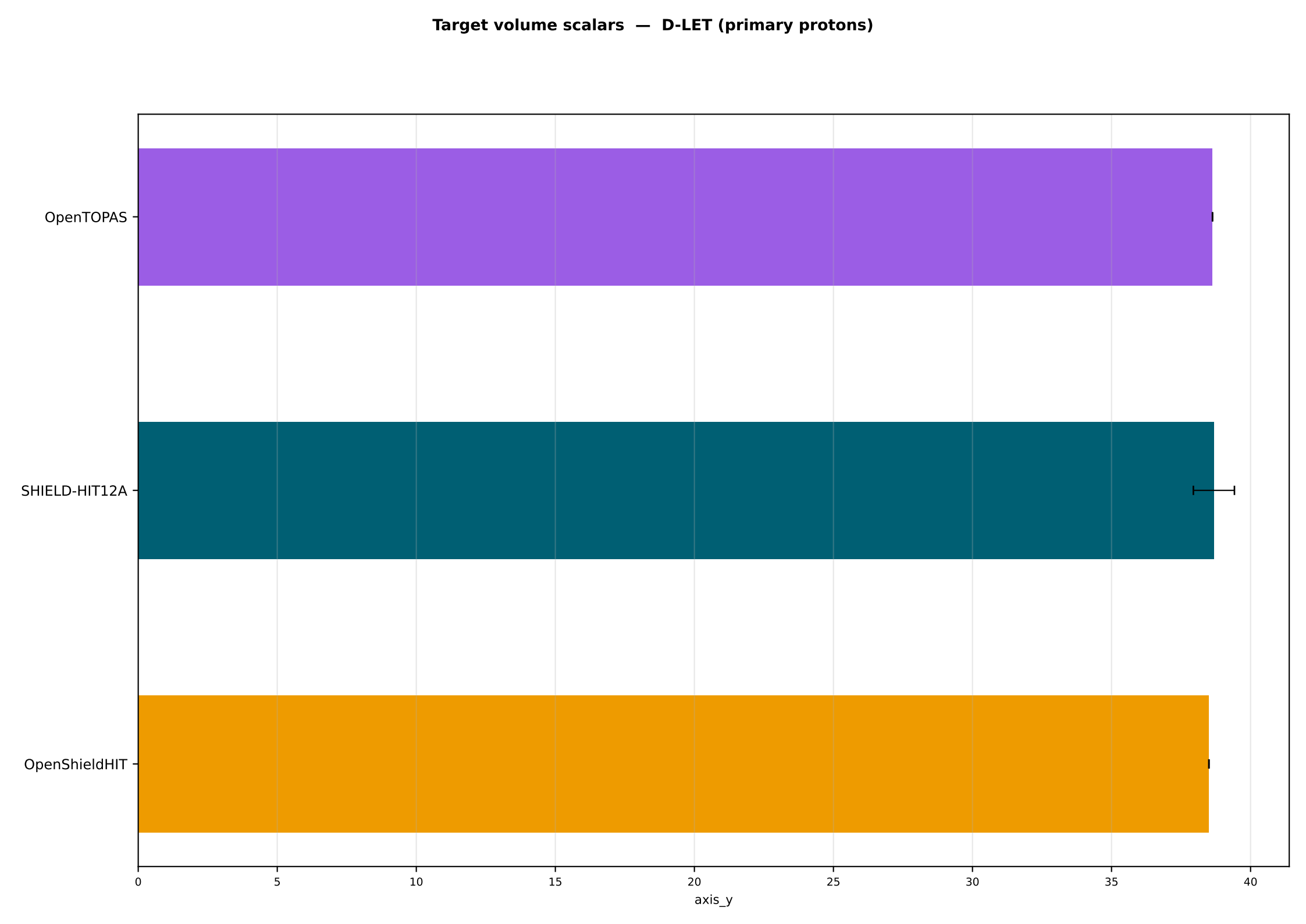

Target spectra — Energy-per-nucleon fluence spectrum (tritons)
OpenShieldHIT
SHIELD-HIT12A
OpenTOPAS
fluence differential [1/(cm² primary MeV/u)]
energy per nucleon [MeV/u]
10^{-8}
10^{-10}
10^{-12}
10^{-14}
10^{-16}
10^{-18}
10^{-20}
10^{-22}
10^{-24}
10^{-1}
10^{0}
10^{1}

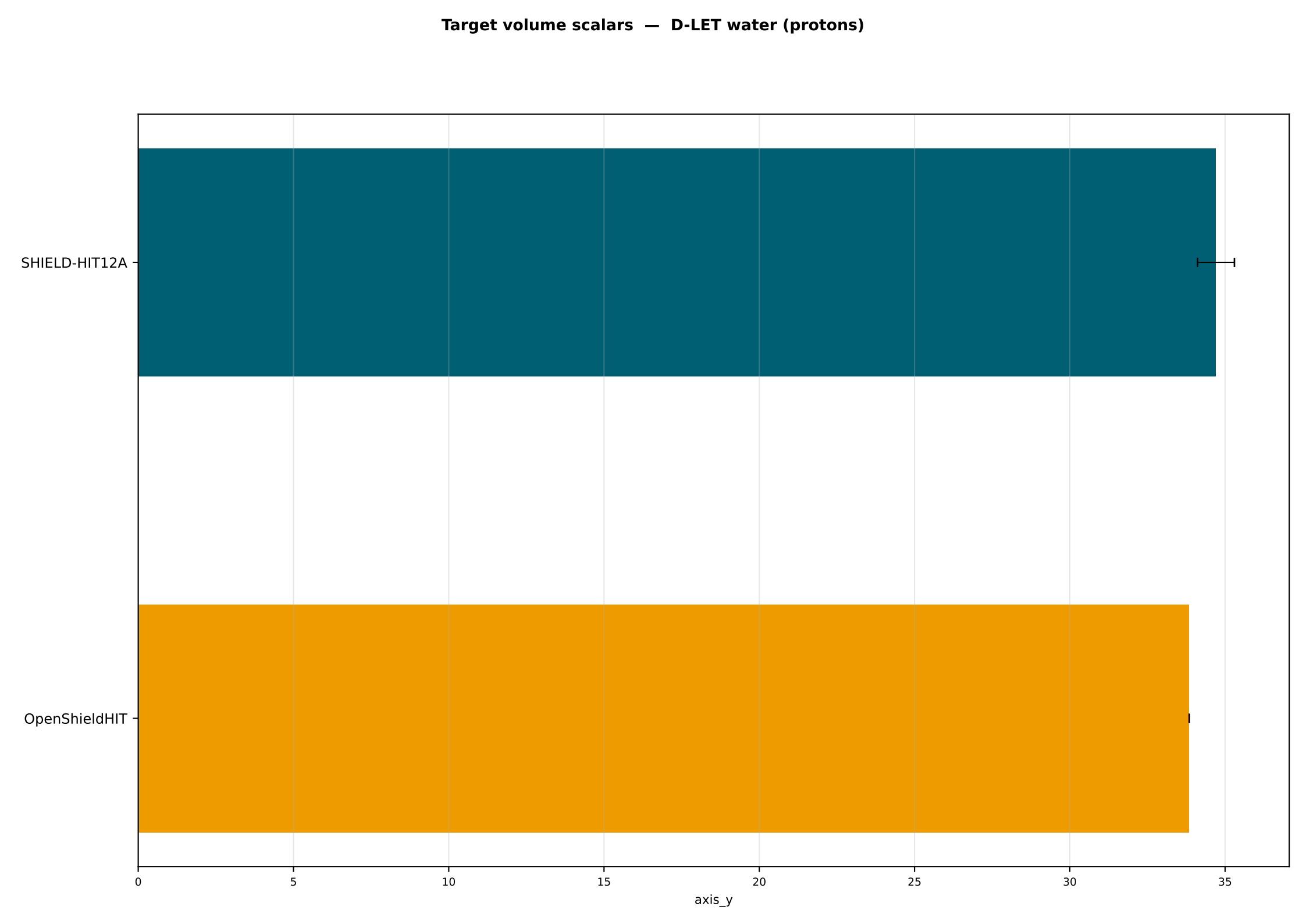

Target volume scalars — Dirty dose-to-water
SHIELD-HIT12A
OpenShieldHIT
0.000
0.002
0.004
0.006
0.008
0.010
0.012
0.014
axis_y

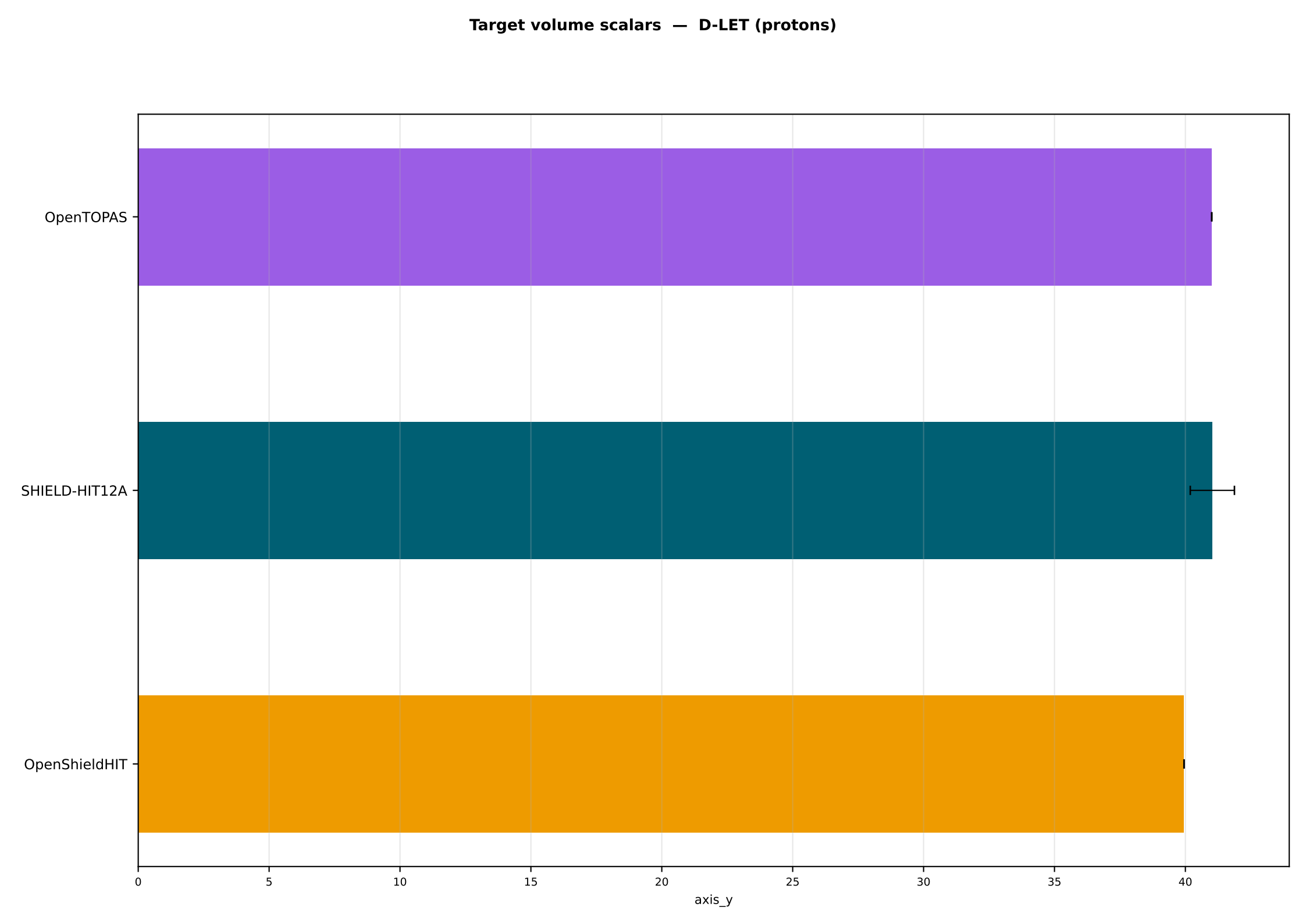

Target volume scalars — D-LET water
SHIELD-HIT12A
OpenShieldHIT
0
10
20
30
40
50
60
axis_y

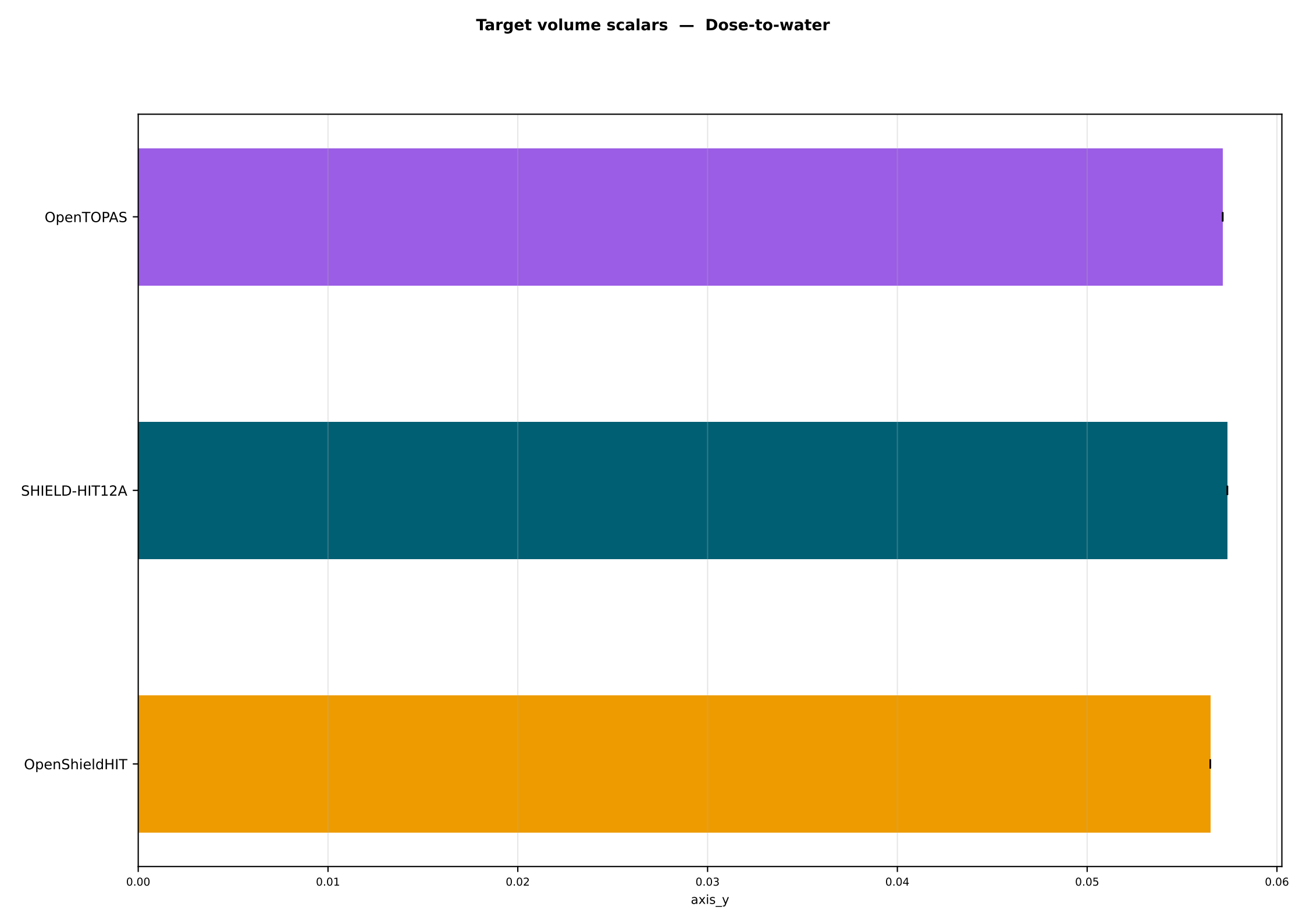

Target volume scalars — D-LET
SHIELD-HIT12A
OpenShieldHIT
0
10
20
30
40
50
60
70
80
axis_y

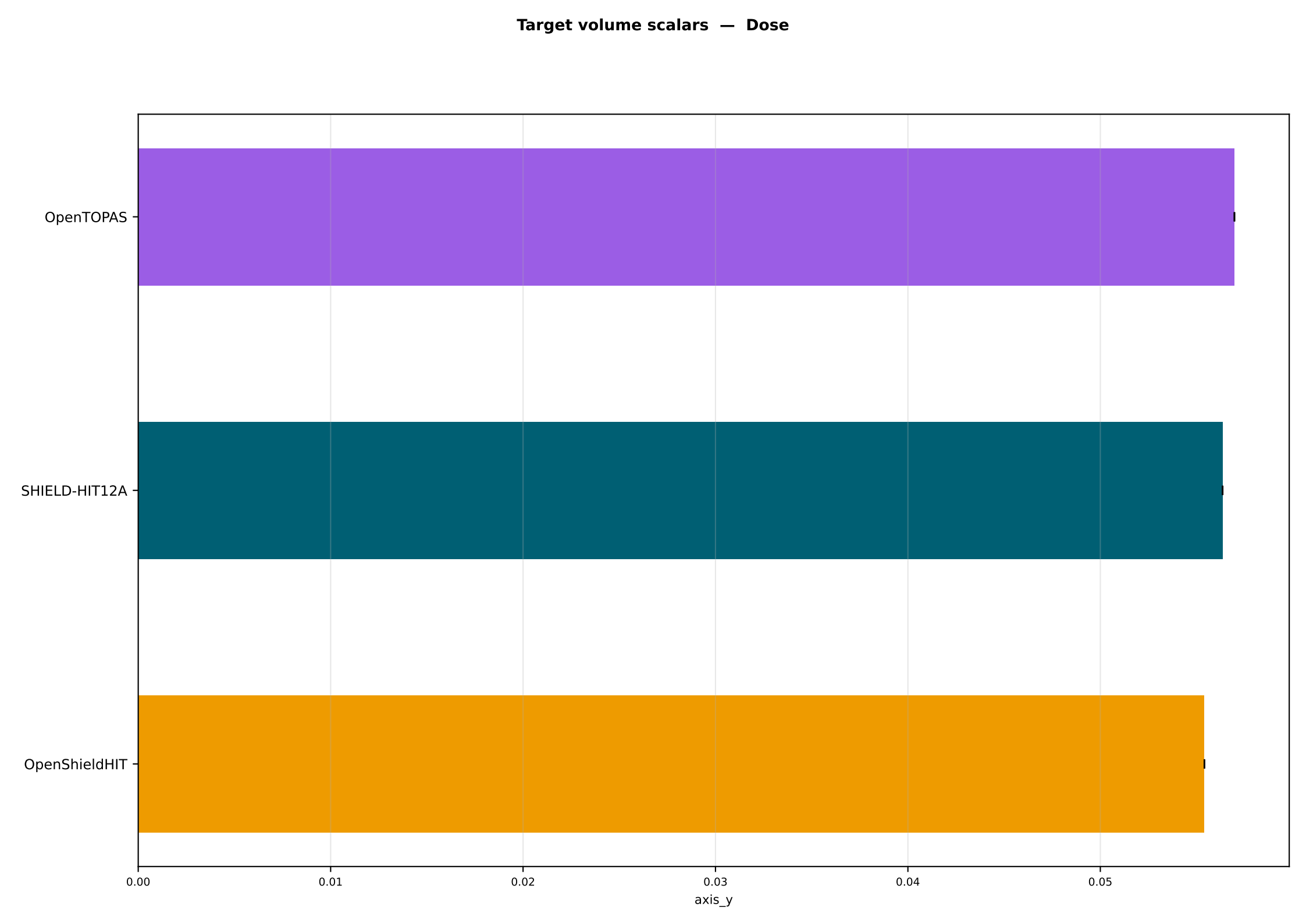

Target volume scalars — D-LET water (primary protons)
SHIELD-HIT12A
OpenShieldHIT
0
5
10
15
20
25
30
axis_y

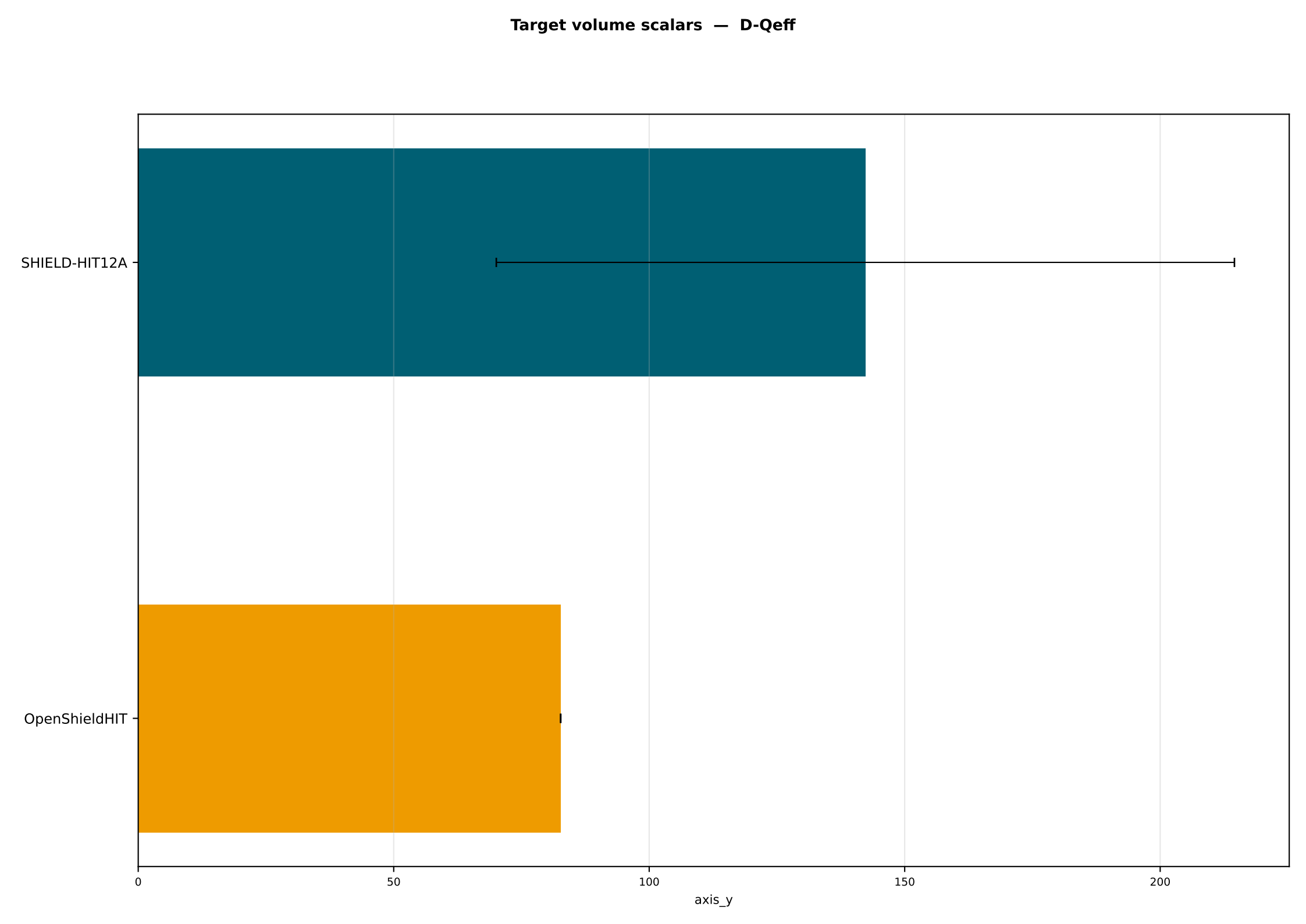

Target volume scalars — D-LET (primary protons)
OpenTOPAS
SHIELD-HIT12A
OpenShieldHIT
0
5
10
15
20
25
30
35
40
axis_y

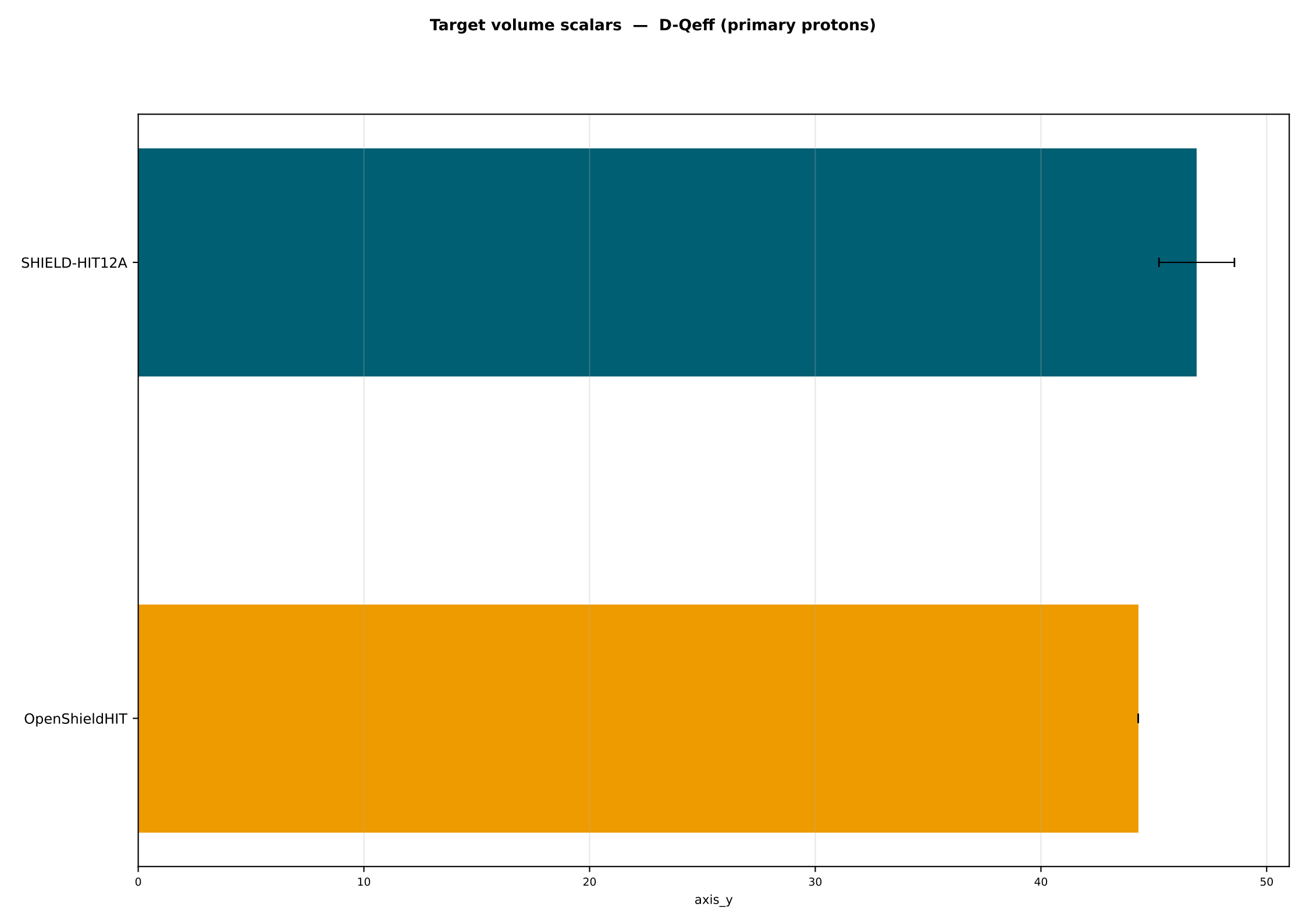

Target volume scalars — D-LET water (protons)
SHIELD-HIT12A
OpenShieldHIT
0
5
10
15
20
25
30
35
axis_y

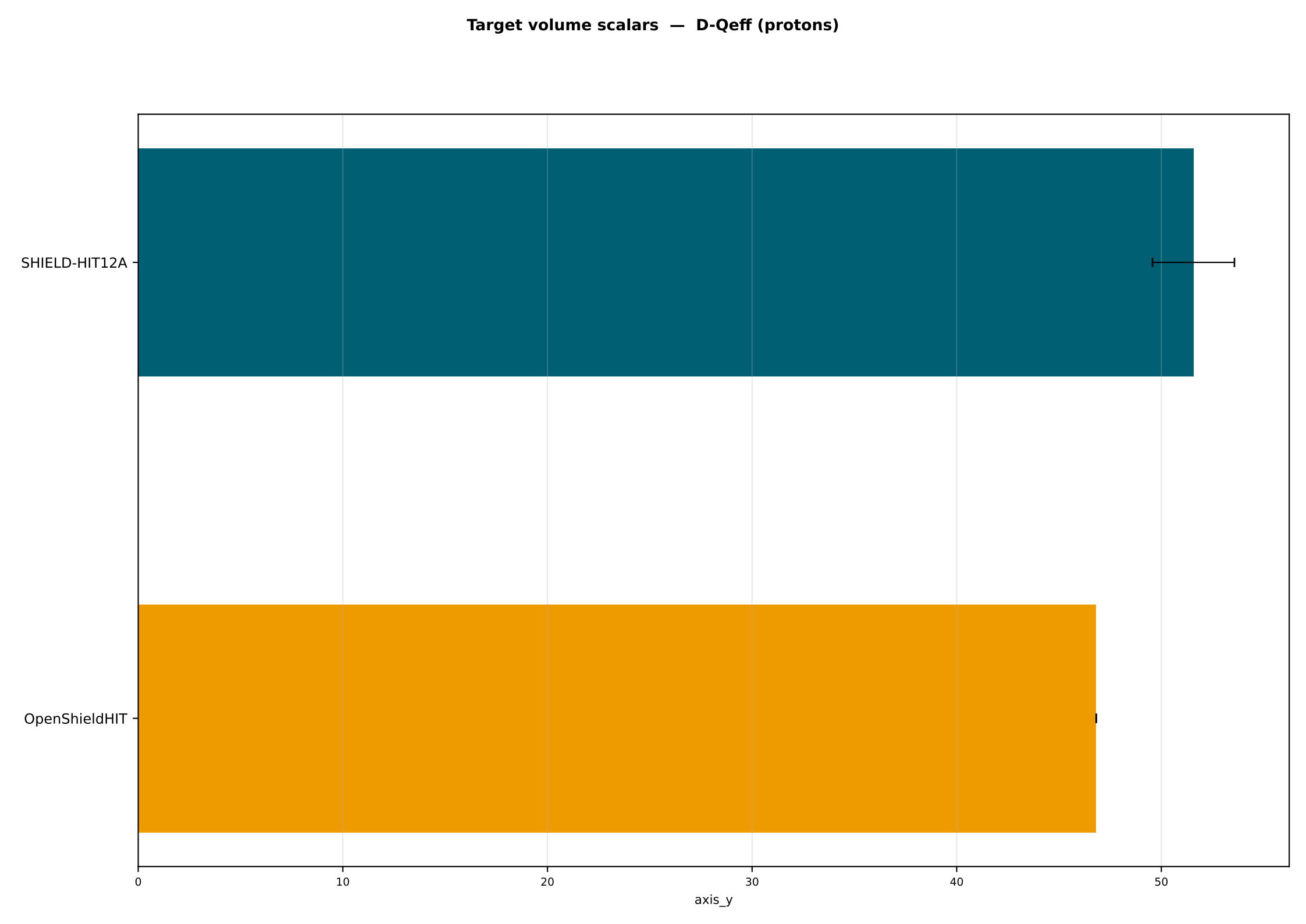

Target volume scalars — D-LET (protons)
OpenTOPAS
SHIELD-HIT12A
OpenShieldHIT
0
5
10
15
20
25
30
35
40
axis_y

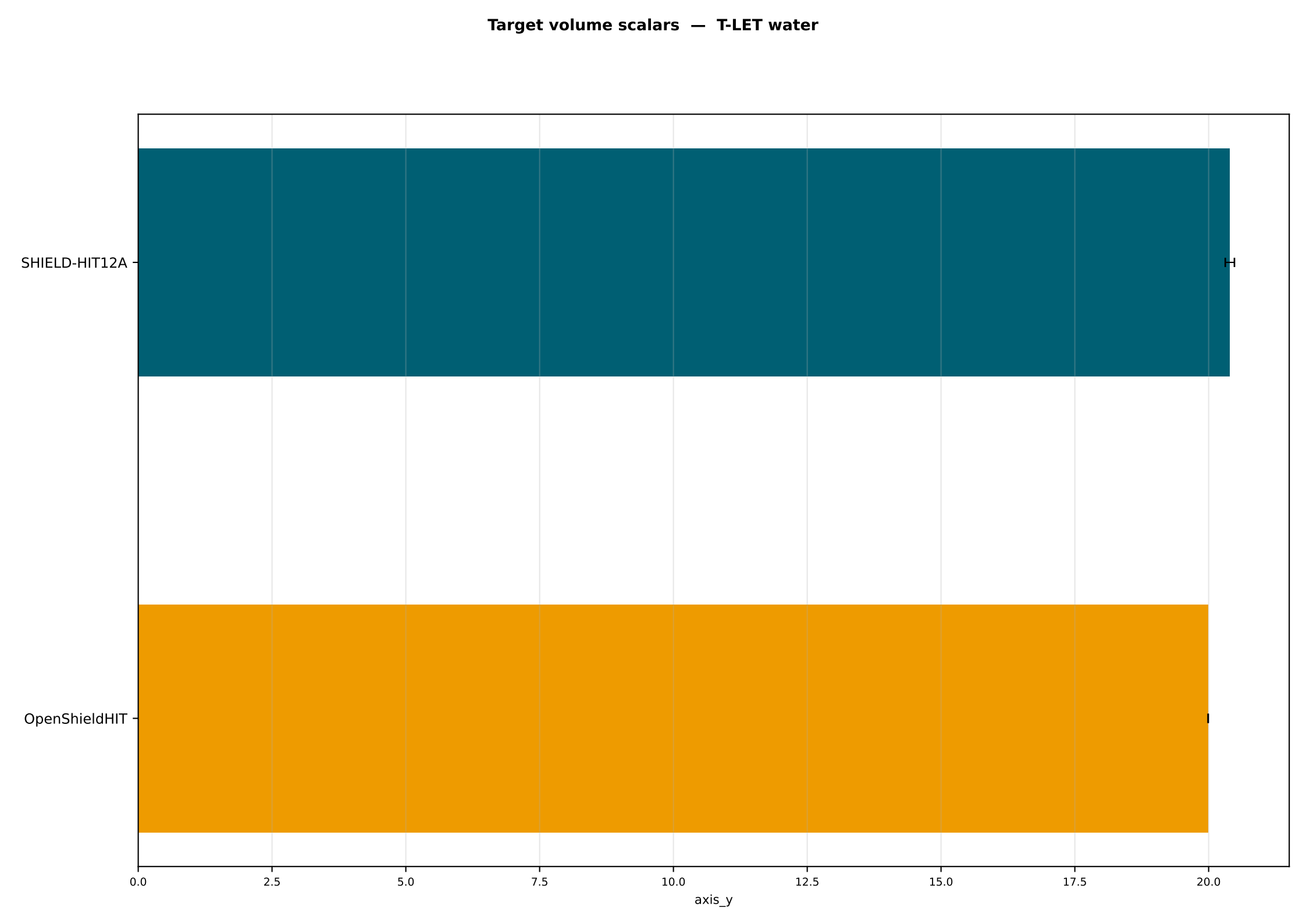

Target volume scalars — Dose-to-water
OpenTOPAS
SHIELD-HIT12A
OpenShieldHIT
0.00
0.01
0.02
0.03
0.04
0.05
0.06
axis_y

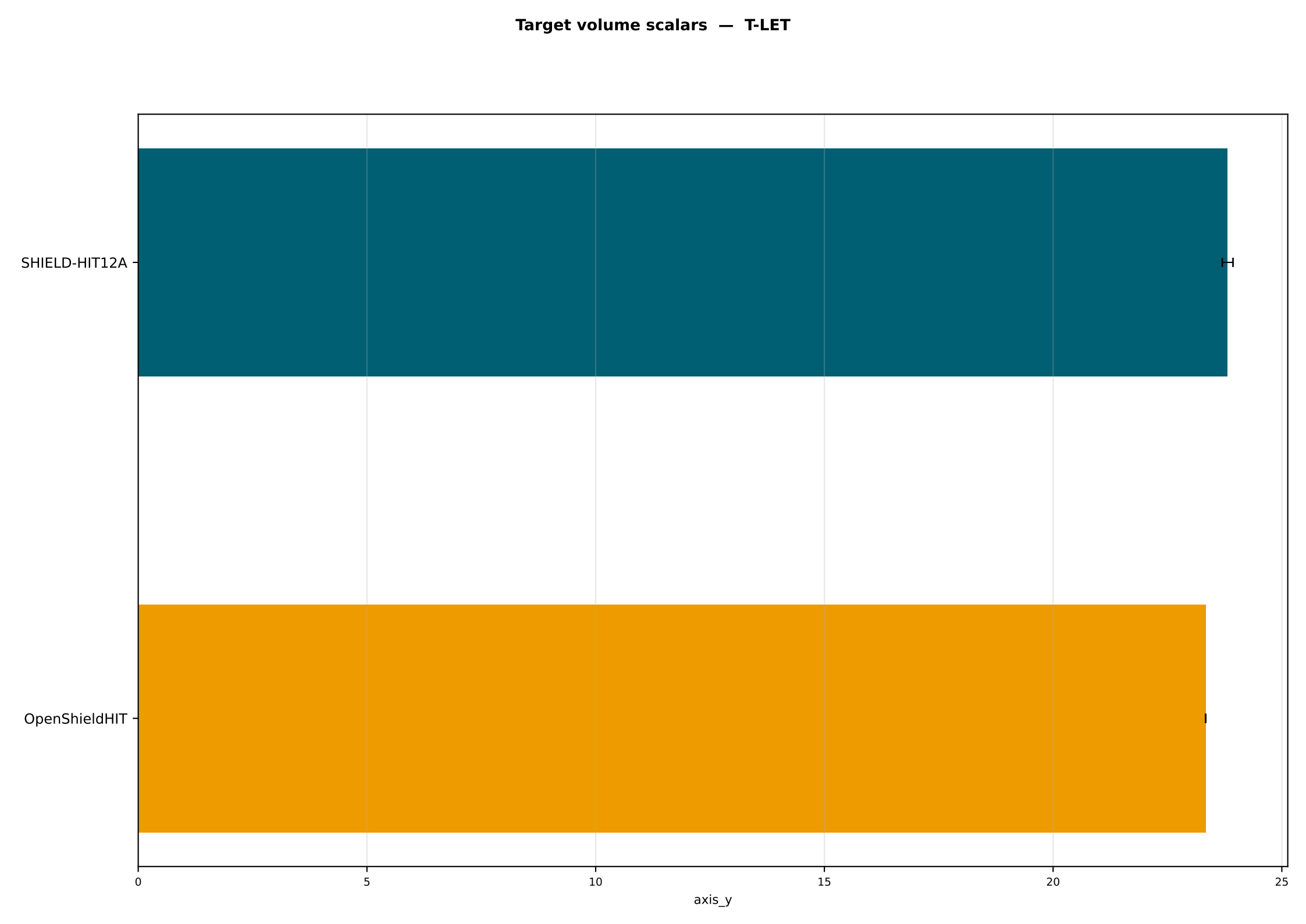

Target volume scalars — Dose
OpenTOPAS
SHIELD-HIT12A
OpenShieldHIT
0.00
0.01
0.02
0.03
0.04
0.05
axis_y

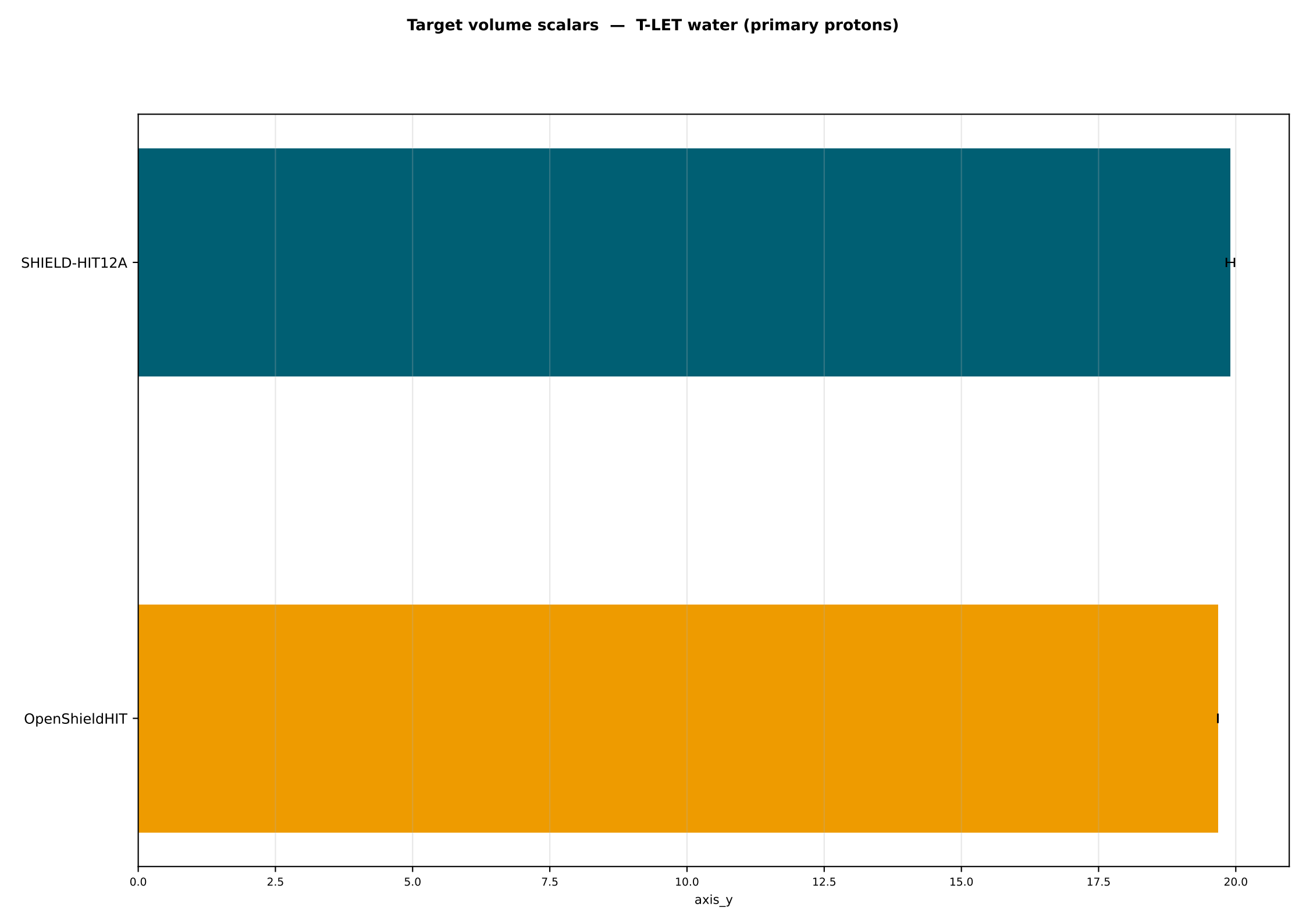

Target volume scalars — D-Qeff
SHIELD-HIT12A
OpenShieldHIT
0
50
100
150
200
axis_y

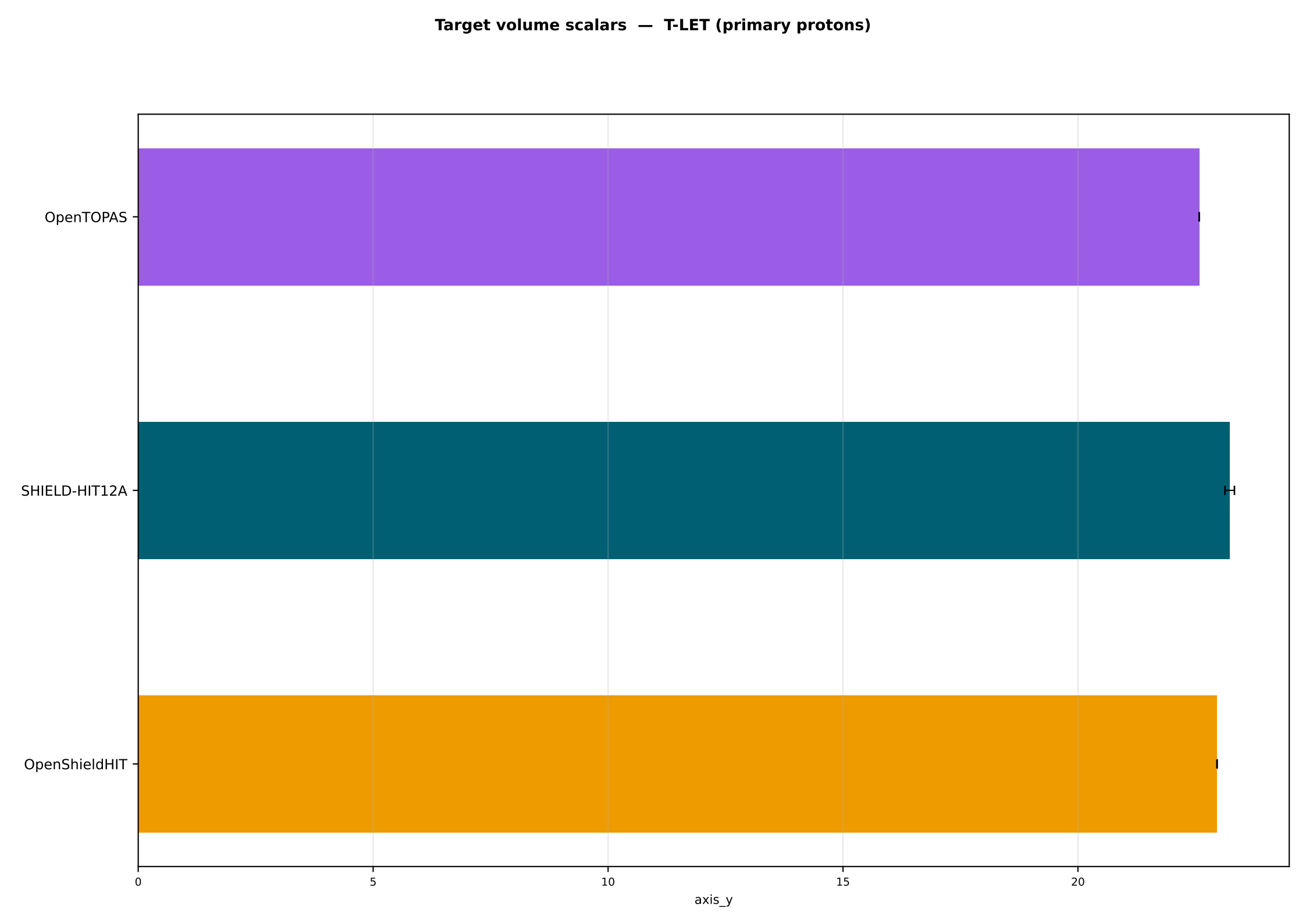

Target volume scalars — D-Qeff (primary protons)
SHIELD-HIT12A
OpenShieldHIT
0
10
20
30
40
50
axis_y

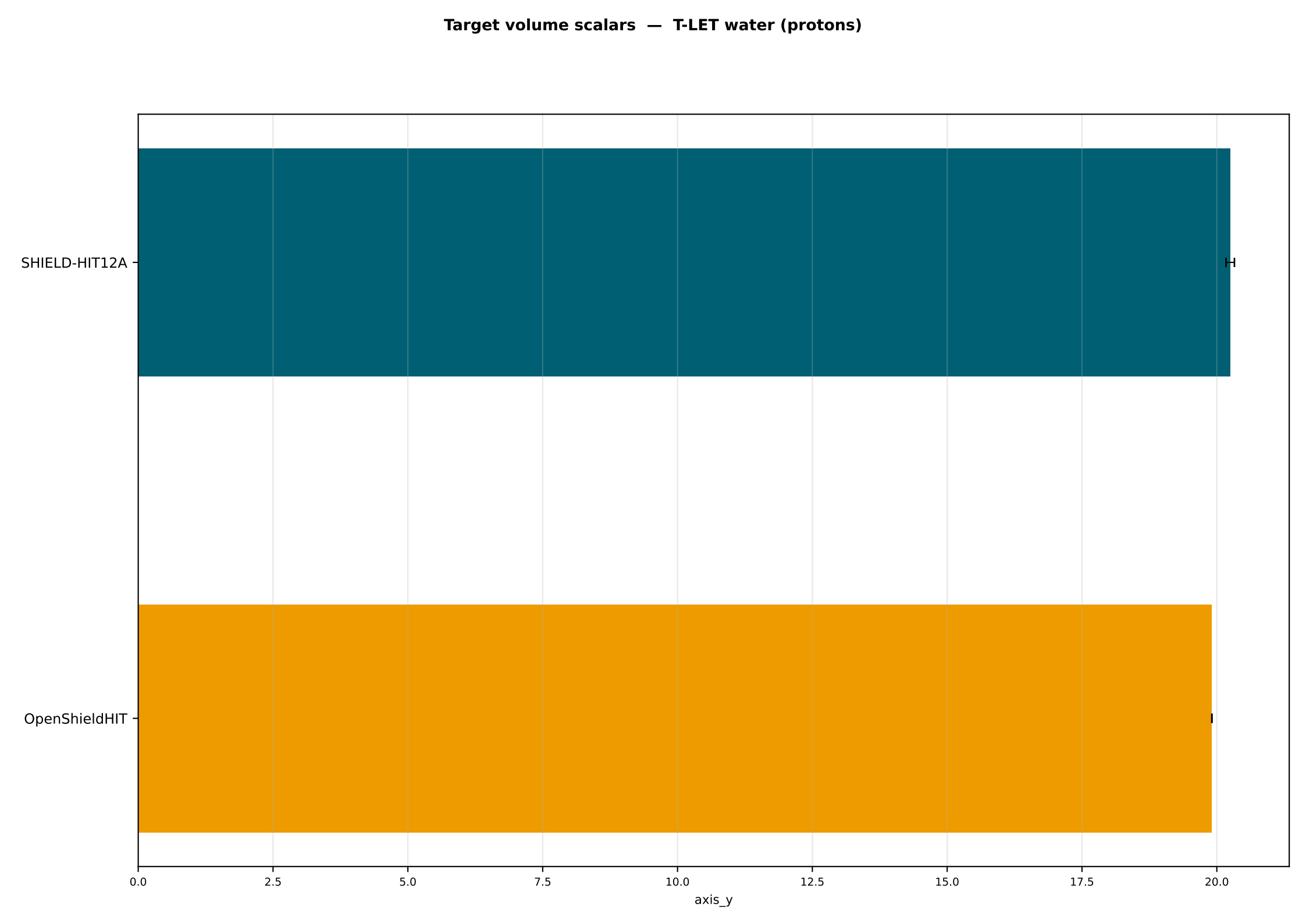

Target volume scalars — D-Qeff (protons)
SHIELD-HIT12A
OpenShieldHIT
0
10
20
30
40
50
axis_y

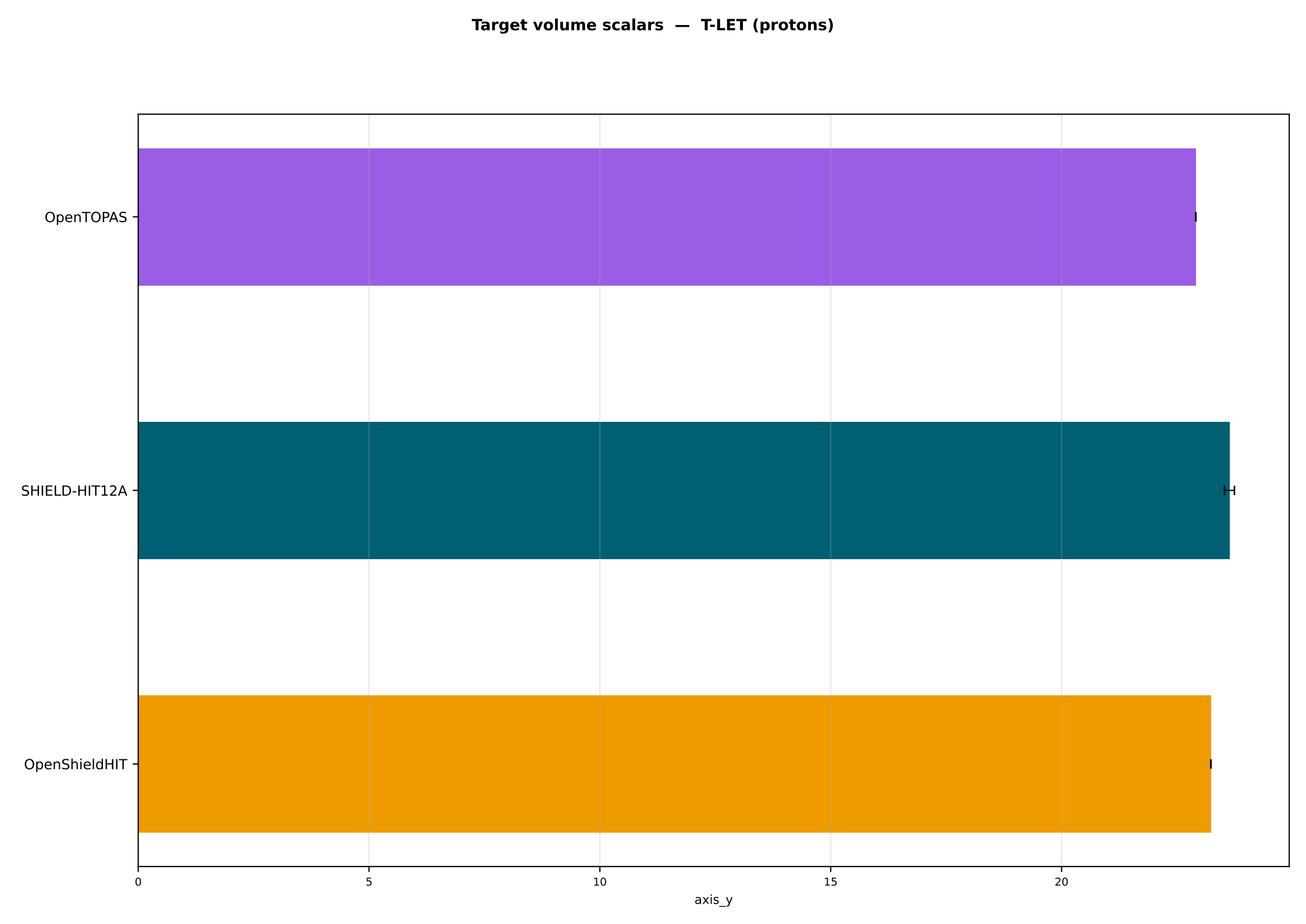

Target volume scalars — T-LET water
SHIELD-HIT12A
OpenShieldHIT
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
axis_y

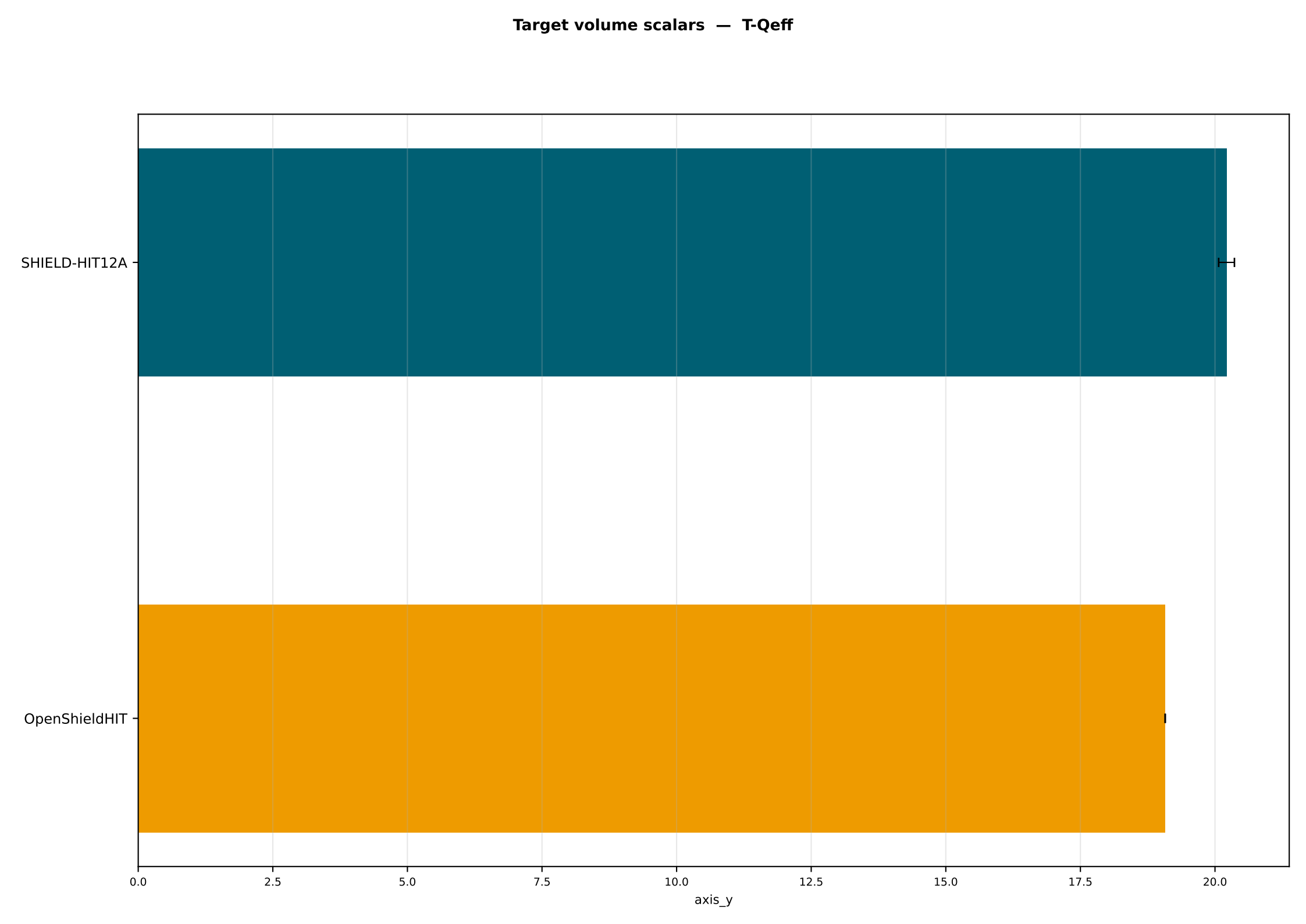

Target volume scalars — T-LET
SHIELD-HIT12A
OpenShieldHIT
0
5
10
15
20
25
axis_y

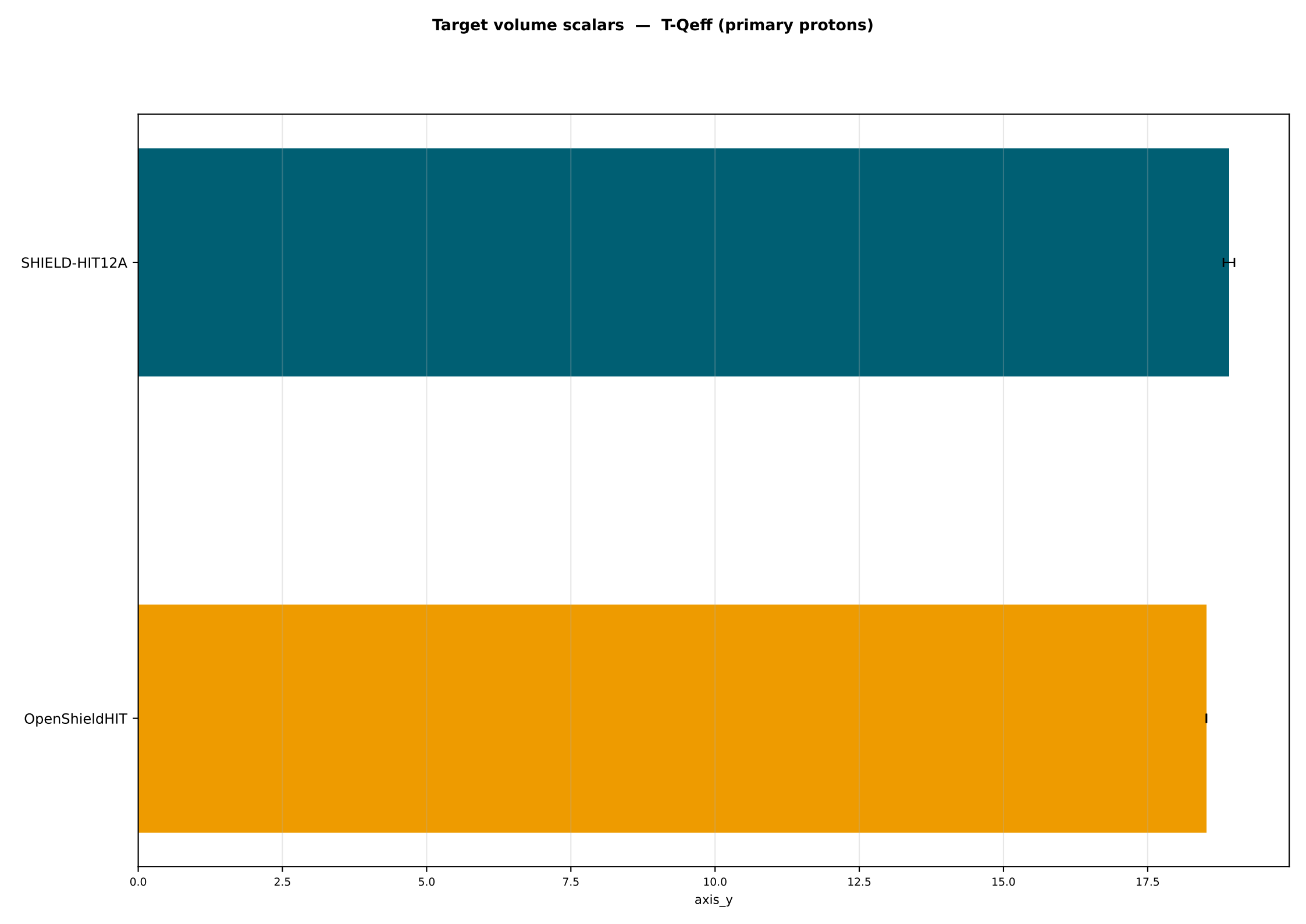

Target volume scalars — T-LET water (primary protons)
SHIELD-HIT12A
H
OpenShieldHIT
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
axis_y

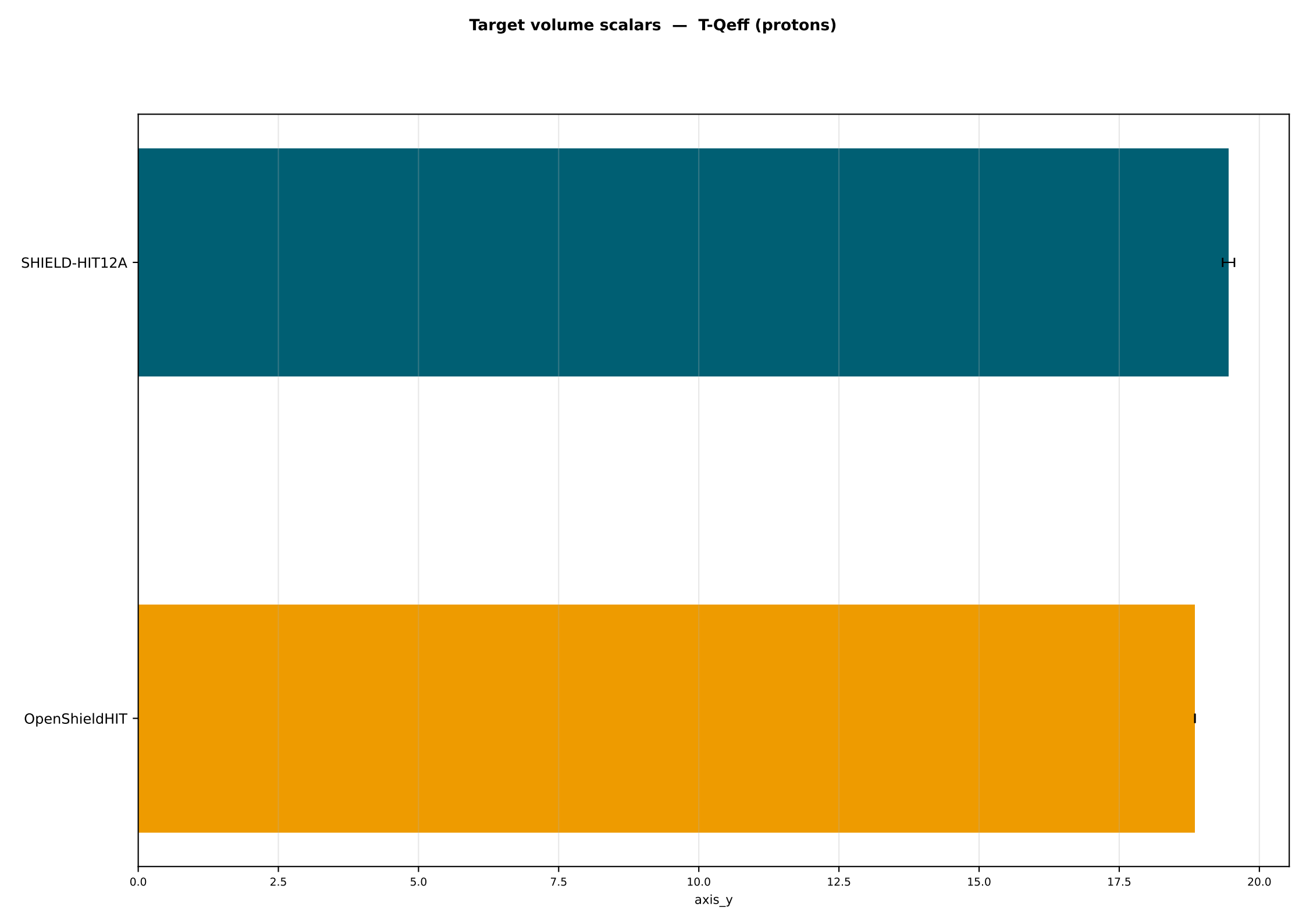

Target volume scalars — T-LET (primary protons)
OpenTOPAS
SHIELD-HIT12A
OpenShieldHIT
0
5
10
15
20
axis_y


Target volume scalars — T-LET water (protons)
SHIELD-HIT12A
OpenShieldHIT
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
axis_y


Target volume scalars — T-LET (protons)
OpenTOPAS
SHIELD-HIT12A
OpenShieldHIT
0
5
10
15
20
axis_y


Target volume scalars — T-Qeff
SHIELD-HIT12A
OpenShieldHIT
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
axis_y


Target volume scalars — T-Qeff (primary protons)
SHIELD-HIT12A
OpenShieldHIT
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
axis_y


Target volume scalars — T-Qeff (protons)
SHIELD-HIT12A
OpenShieldHIT
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
axis_y