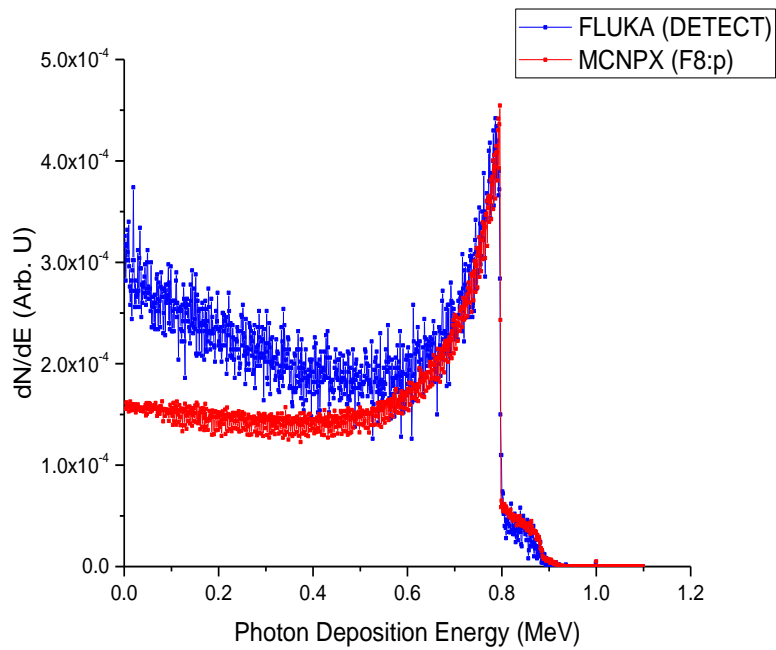


1MeV photon beam incident on a plastic scintillator



All FLUKA's dN/dE values have been multiplied by 20.

MCNPX input (with the same energy binning as in FLUKA)

```
1 1 -1.032 -11 imp:p=1
2 0 -99#1 imp:p=1
3 0 99 imp:p=0

11 rcc 0 0 0 0 2 1
99 so 10

mode p
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vec=0.0 0.0 1.0 dir=1.0 erg=1.0
m1 1001 -0.085
6012 -0.915 $ELJEN200 1.032 G/CC
f8:p 1
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0.00322
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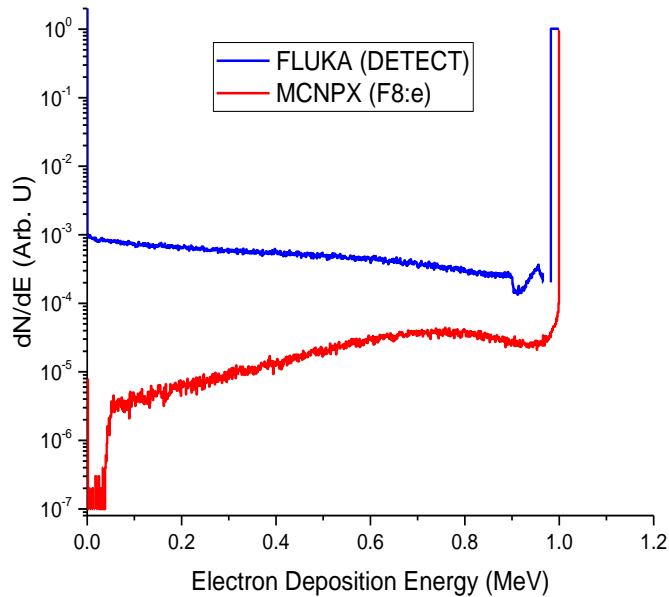
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print
nps 1E7

FLUKA input

TITLE

```
GLOBAL          -1.          0.0
DEFAULTS
BEAM      -0.001      10000.0      PRECISIO
BEAMPOS   0.0    0.0    -1.0      PHOTON
DETECT    0.0    0.0    0.0011      PlastSCDtct
GEOBEGIN                                     COMBNAME
  0  0
RCC SCINT  0.0 0.0 0.0 0.0 0.0 2.0 1.0
SPH SmallSPH  0.0 0.0 0.0 15.
SPH LargeSPH  0.0 0.0 0.0 20.0
END
PlastSC  5 +SCINT
AirArnd  5 +SmallSPH-SCINT
NoIMP    5 +LargeSPH -SmallSPH
END
GEOEND
ASSIGNMA  ELJEN200  PlastSC
ASSIGNMA  VACUUM   AirArnd
ASSIGNMA  BLCKHOLE NoIMP
* ELJEN200
MATERIAL          1.032          ELJEN200
COMPOUND  0.085 HYDROGEN  0.915  CARBON          ELJEN200
RANDOMIZ    1.
START      1E7
STOP
```

1MeV electron beam incident on a plastic scintillator



All FLUKA's dN/dE values have been multiplied by 10.

MCNPX input (with the same energy binning as in FLUKA)

```
1 1 -1.032 -11 imp:e=1
2 0 -99#1 imp:e=1
3 0 99 imp:e=0

11 rcc 0 0 0 0 2 1
99 so 10

mode e
sdef pos=0.0 0.0 -1.0 par=3 cell=2
vec=0.0 0.0 1.0 dir=1.0 erg=1.0
m1 1001 -0.085
6012 -0.915 $ELJEN200 1.032 G/CC
f8:e 1
e8 0.00000
0.00107
0.00215
0.00322
0.00430
0.00537
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```


0.00859
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FLUKA input

TITLE

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DEFAULTS
BEAM            -0.001        10000.0
BEAMPOS         0.0          0.0          -1.0
DETECT          0.0          0.0          0.0011
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RCC SCINT       0.0 0.0 0.0 0.0 0.0 0.0 2.0 1.0
SPH SmallSPH   0.0 0.0 0.0 15.
SPH LargeSPH   0.0 0.0 0.0 20.0
END
PlastSC        5 +SCINT
AirArnd        5 +SmallSPH-SCINT
NoIMP          5 +LargeSPH -SmallSPH
END
GEOEND
ASSIGNMA ELJEN200 PlastSC
ASSIGNMA VACUUM AirArnd
ASSIGNMA BLCKHOLE NoIMP
* ELJEN200
MATERIAL                1.032                ELJEN200
COMPOUND  0.085 HYDROGEN  0.915 CARBON                ELJEN200
RANDOMIZ    1.
START      1E7
STOP
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