

Table: revised: Comparison of 3 simulations (20080218)
 (The values of some parameters are still Need-To-Be-Comfermed)

- (a) Vivoli-san 1 : Vovoli-san's presentation in Posipol 2007
 "A_Positron_Capture_for_the_Compton_Scheme.ppt"
- (b) Vivoli-san 2 : Vovoli-san's recent report
 "RESULTS OF PARMELA SIMULATIONS OF THE CAPTURE
 SECTION WITH PHOTONS FROM 10 LASER CAVITIES"
- (c) Wanming-san : Wanming-san's recent report
 "Capture under different target and Pz lower cut.ppt"

| | Vivoli-san 1 | Vivoli-san 2 | Wanming-san |
|---------------------------------|--------------|--------------|-------------|
| Ne+(captured)/Ng [%] (no cut) | ~2 | 0.77 | ~0.5 |
| Number of collision points | 1 | 10 | 10 |
| Distance from CP to target [m] | 10 | 40 | 40 |
| Peak acc. gradient [MV/m] | ~15 (*1) | 7 (*2) | ~15 (*3) |
| Average acc. gradient [MV/m] | 7 (*1) | ~3.3 (*2) | 7 (*3) |
| Iris diameter of Acc. [mm] | 46 (*1) | 40 (*2) | 60 (*3) |
| Distance from target to AMD [m] | 0 | 0 | 0 |
| AMD (OMD) length [m] | 0.5 | 0.5 | 0.5 |
| AMD (OMD) field [T] | 6-0.5 | 6-0.5 | 5-0.25 |
| target thickness [X0] | 0.4 | 0.4 | 0.5 (*4) |
| phase window [deg] | +25 (*5) | +25 (*5) | +7.5 (*5) |

(*1) In "Vivoli-san 1", he did not assume particular scheme.
 He just assumed Compton.

(*2) In "Vivoli-san 2", he assumed the ERL scheme.
 This scheme requires 100 m sec pulse length of RF acceleration.

(*3) In "Wanming-san", he used the code which was developed for
 the undulator with minimum modifications for the Compton.

(*4) When t=0.5, Ne+(captured)/Ng = ~ 0.5% was obtained with no cut.

(*5) All values are "edge" and "before compression".