

LONGITUDINAL LOSS FACTORS FOR THE LHC COLLIMATORS AND TCDQ : V6.5 LAYOUT, PHASE 1, (IR7 + IR3)

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- ◆ **Collimators**
 - **Injection**
 - **Collision**

- ◆ **TCDQ**
 - **Injection**
 - **Collision**

Collimators

◆ **Injection** ⇒ Waiting for the updated list of parameters
(Guillaume + Stefano contacted yesterday only !)

- **Without coating**
- **With 5 μm Cu coating**

◆ **Collision**

- **Without coating**

$$k_{loss}^l = 0.18 \text{ V/pC}$$

- **With 5 μm Cu coating**

$$k_{loss}^l = 6 \times 10^{-3} \text{ V/pC}$$

**Single-bunch
loss factor**

TCDQ

(assuming 2 sides. In fact only 1 in the present scenario $\Rightarrow \times \frac{1}{2}$ the results below)

◆ Injection

- Without coating $k_{loss}^l = 3.7 \times 10^{-3} \text{ V/pC}$

- With 5 μm Cu coating $k_{loss}^l = 1.3 \times 10^{-4} \text{ V/pC}$

◆ Collision

- Without coating $k_{loss}^l = 3.3 \times 10^{-2} \text{ V/pC}$

- With 5 μm Cu coating $k_{loss}^l = 1.1 \times 10^{-3} \text{ V/pC}$