

# *summary description of two modules*

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## ■ *Selection of materials for two modules*

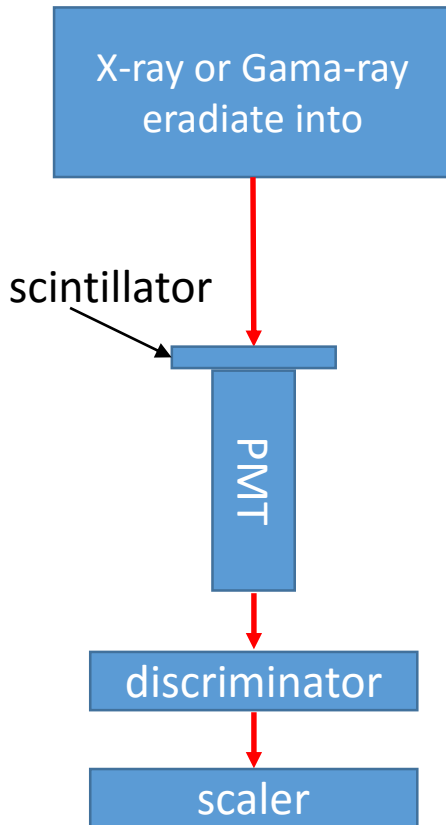
	1 <sup>st</sup> module	2 <sup>nd</sup> module
WLS fiber	Saint-Gobain (BCF91A)	Quraray (Y11)
scintillator	Kedi (old)	Kedi (new)
reflectors	Mirror mylar	Powder painting
Reflective painting	TiO <sub>2</sub>	silver shine 415001
lead	Jiateng Company	same
PMT	Beijing Bingsong (CR284)	same

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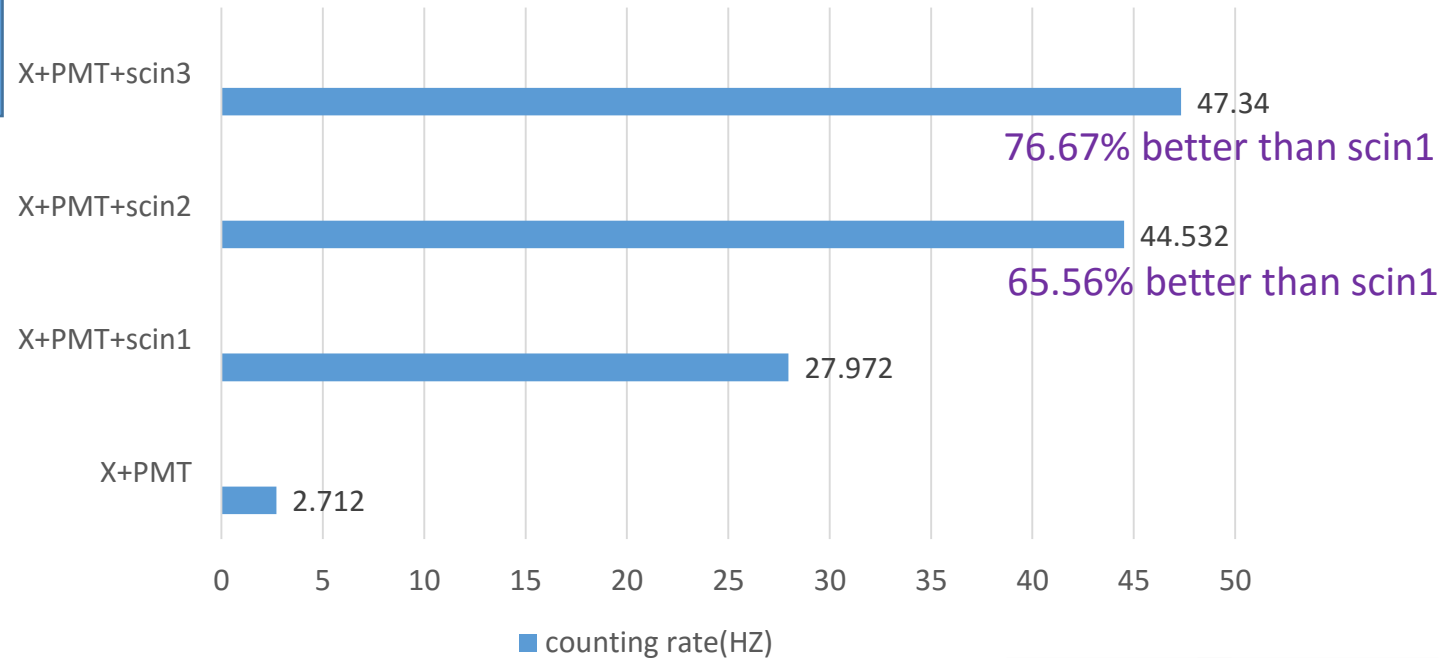
# Goal: improving light yield as much as possible!

- selection of scintillator
- selection of light diffuse reflective materials between scintillator plate and lead plate
- selection of light specular reflective painting on the end of the wave-length shifting fibers

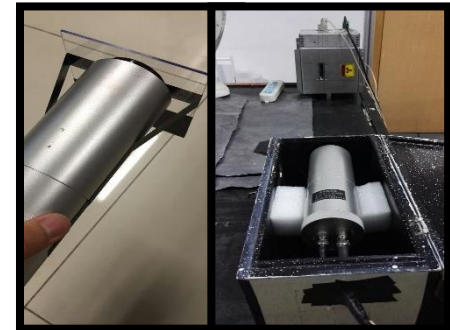
- selection of scintillator

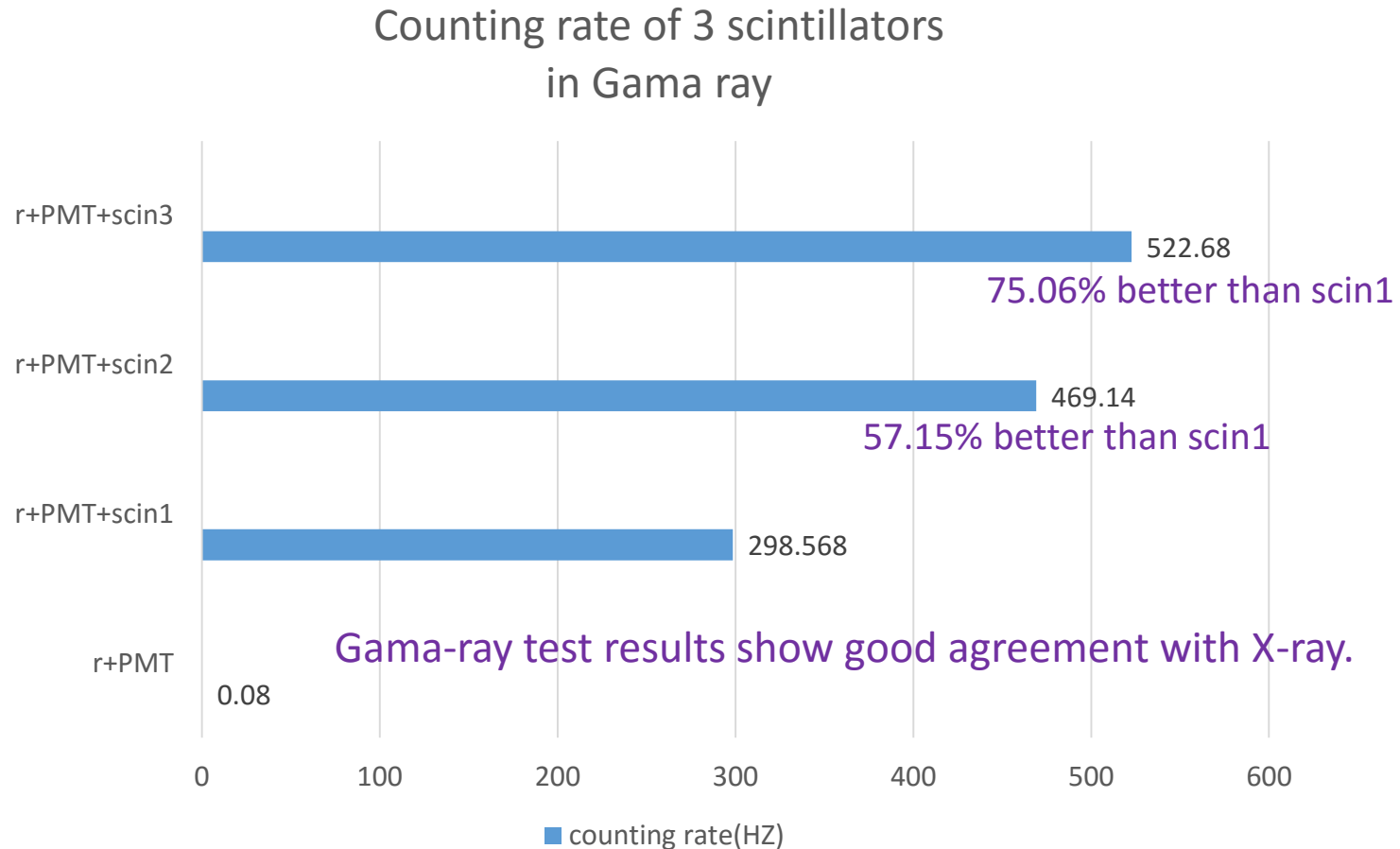


Counting rate of 3 scintillators  
with X ray



3 kind of scintillators we have. Kedi has made scin1 and scin2 with different ratio of material, another company in China has made scin3. So we do this test to select the best one for Ecal.





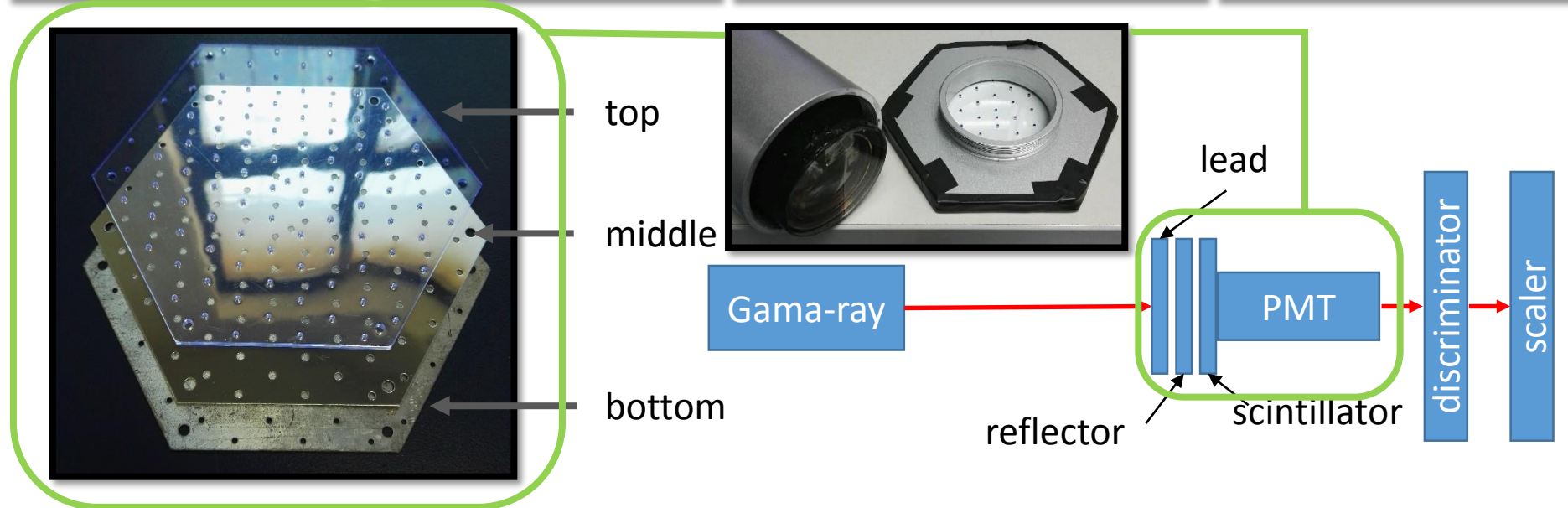
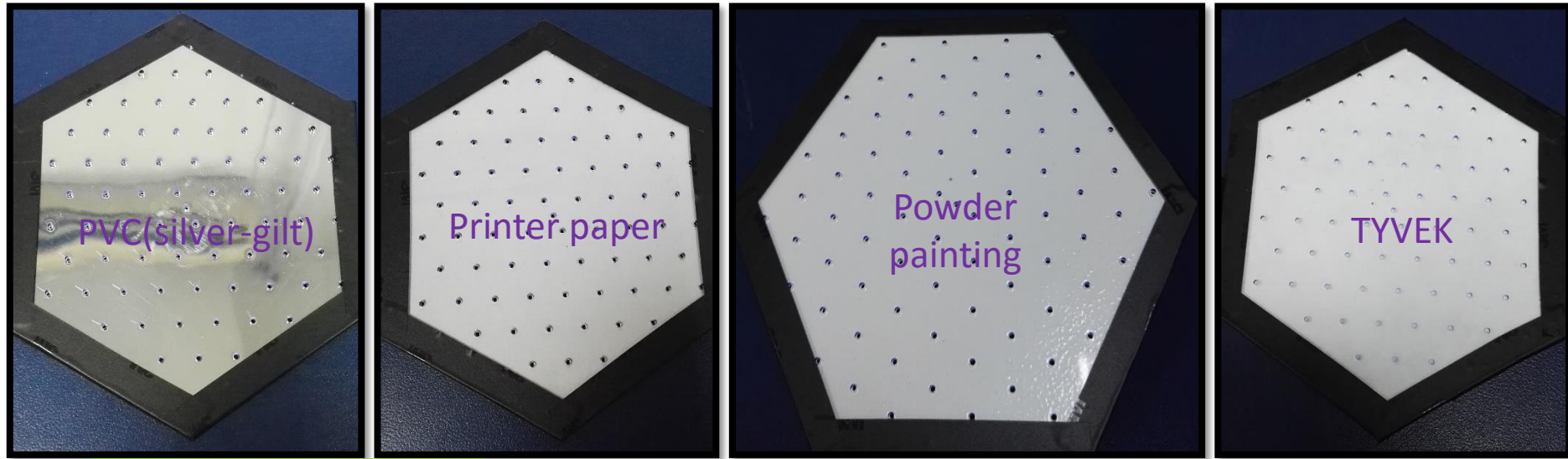
Threshold is 10mv

No.1: made by Kedi , old, thickness is 1.5mm

No.2: made by Kedi , new, thickness is 1.5mm

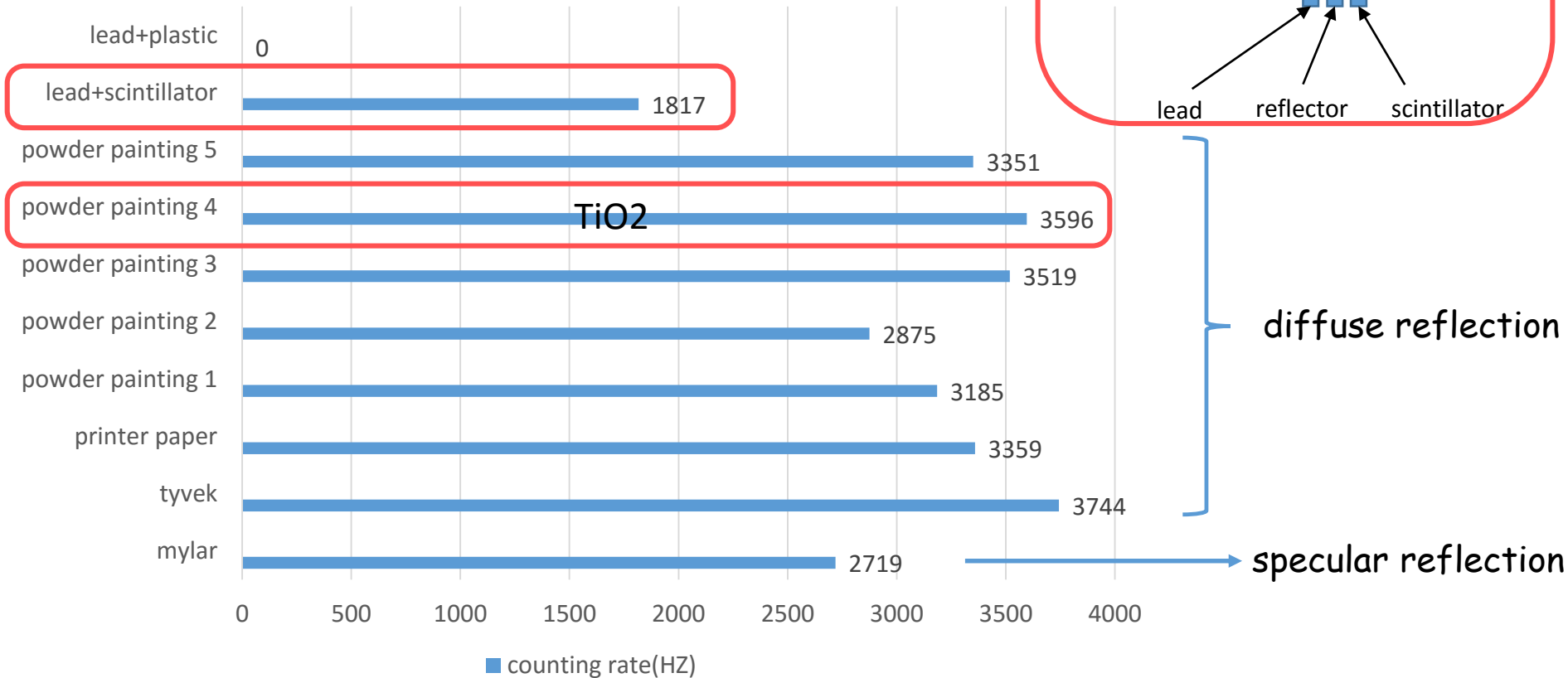
No.3: made by another company in China

- selection of light diffuse reflective materials



- selection of light diffuse reflective materials

Counting rate of different reflectors with Gama ray



For result, if add “powder painting 4” could improve 97.9%

*Thank You !!!*