

ThomX General meeting

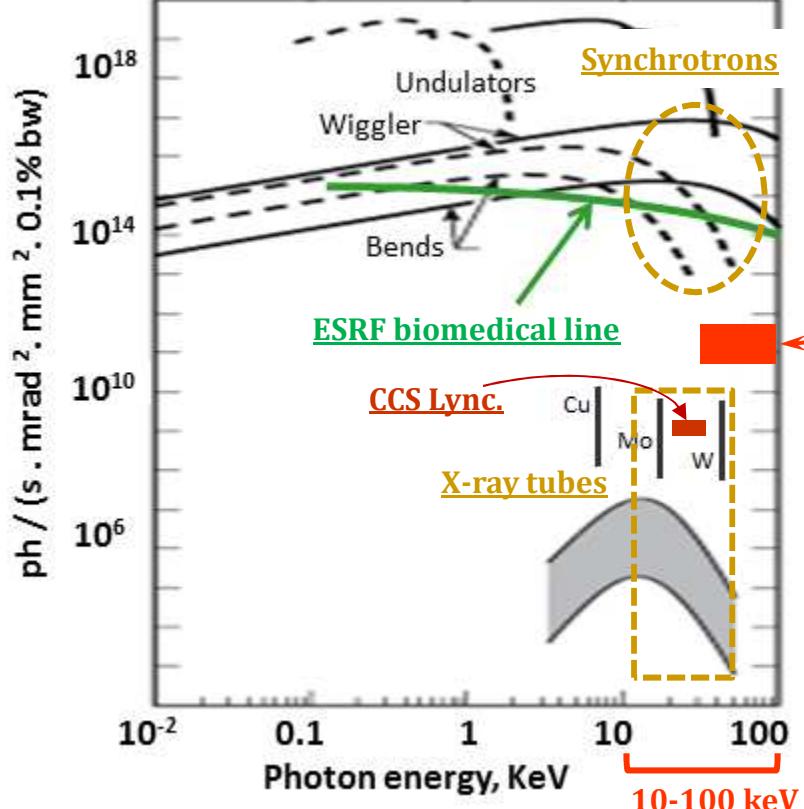
18 december 2018, LAL Orsay

The ThomX X line

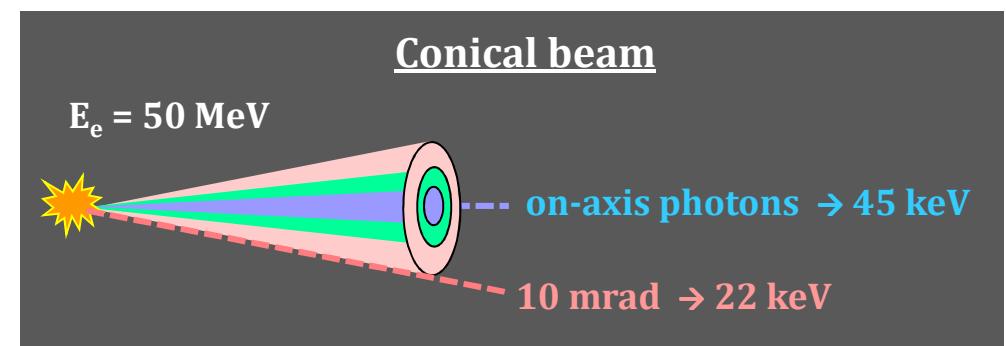
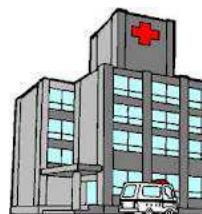
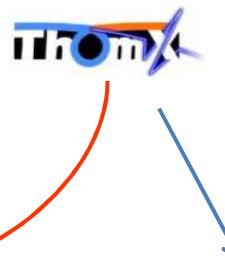


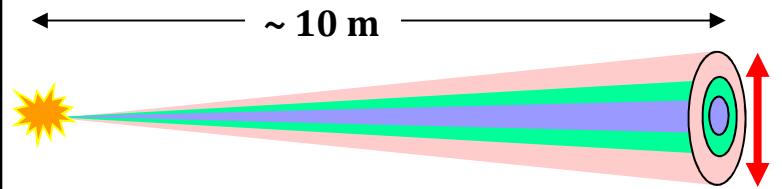
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High flux X-ray sources 10 -100 keV



Flux	$10^{12} - 10^{13}$
Brigh.	$10^{10} - 10^{11}$
E_X on-axis	$40 - 90 \text{ keV}$
Trans. size	$30 - 200 \mu\text{m}$

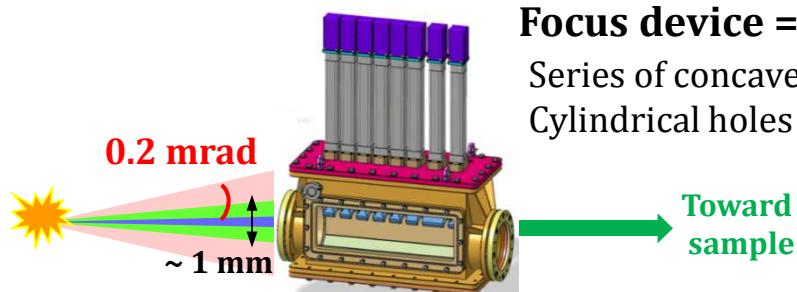




- 15 cm max diameter beam
- Pink beam (few % - 30% bw)
- Flux $\sim 10^{11} - 10^{13}$ ph/s
- 40 - 90 keV

→ Measure large sample with no more need to move it (patient, materiel ...)

→ IMAGING (CT, conventional, PCI), RADIOTHERAPY



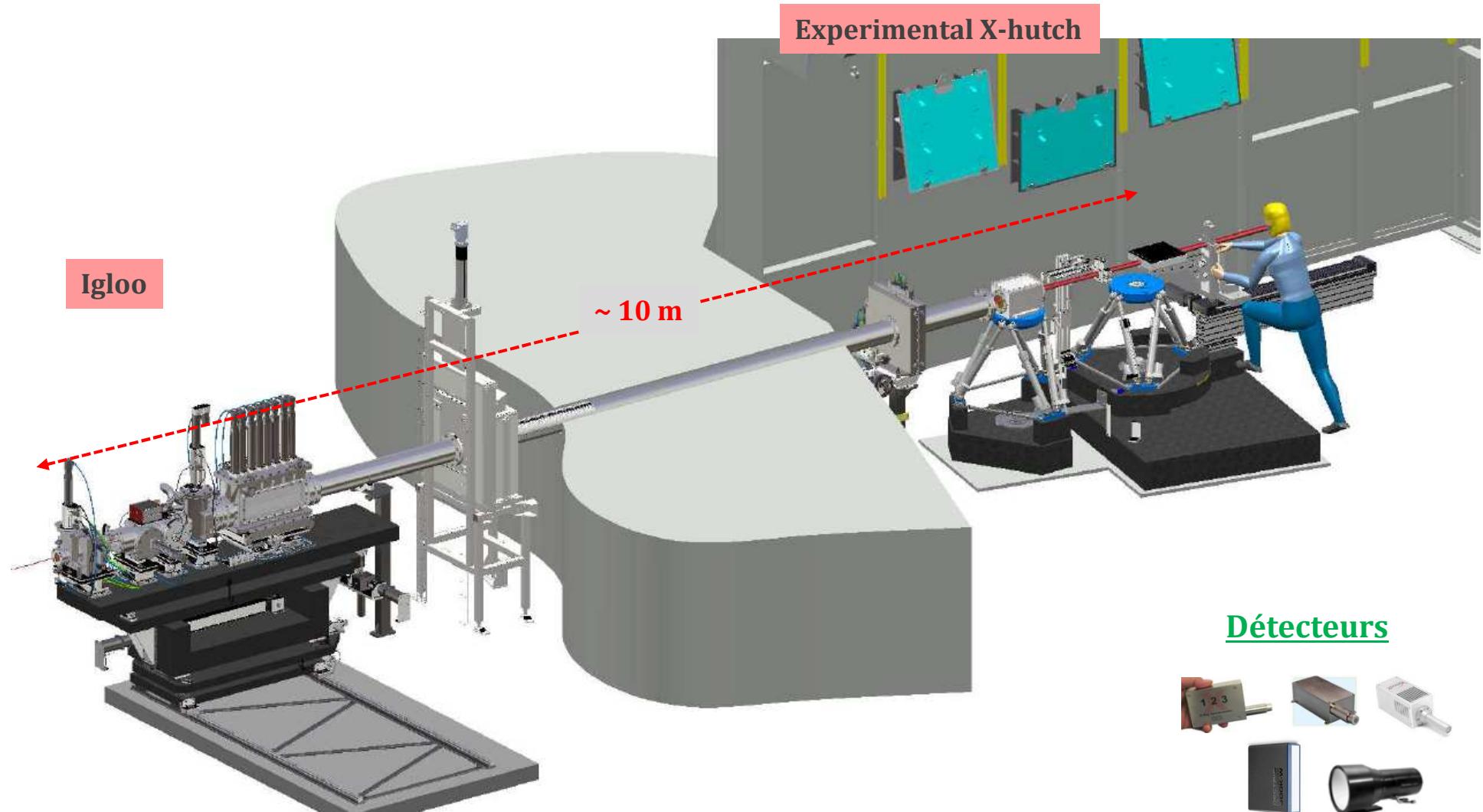
Focus device = transfocator

Series of concave lenses
Cylindrical holes

- $\sim 100-200 \mu\text{m}$ beam
- $\sim 1\%$ bw (0.01% with mono)
- Flux $\sim 10^8 - 10^{10}$ ph/s
- 40 - 90 keV

→ FLUORESCENCE SPECTRO, DIFFRACTION

The ThomX X-line



DéTECTEURS

