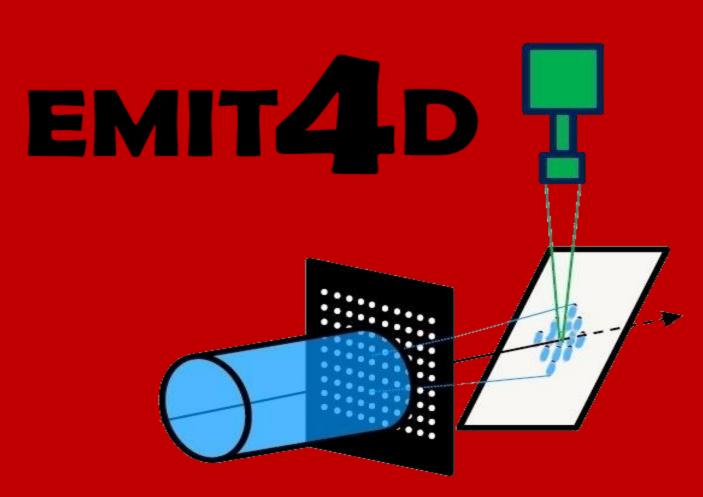


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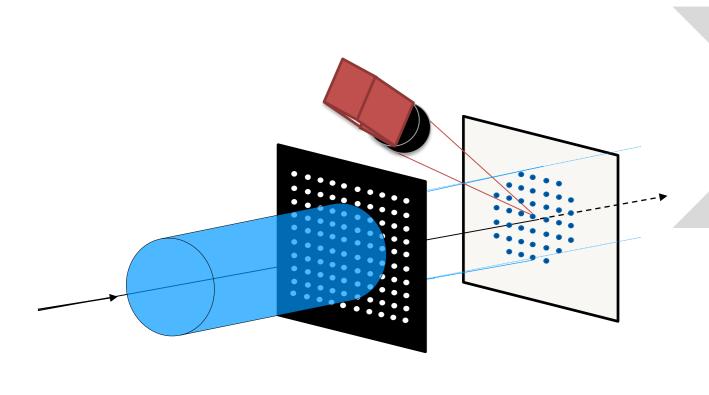
EMIT4D

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Development of an innovative diagnostic : high intensity 4D emittance meter

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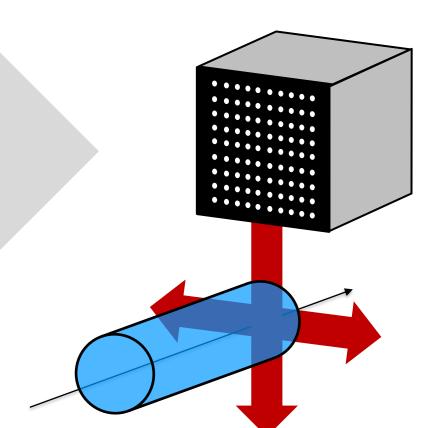


The beam meets a **pepper pot**which select beamlets by
calibrate micro holes

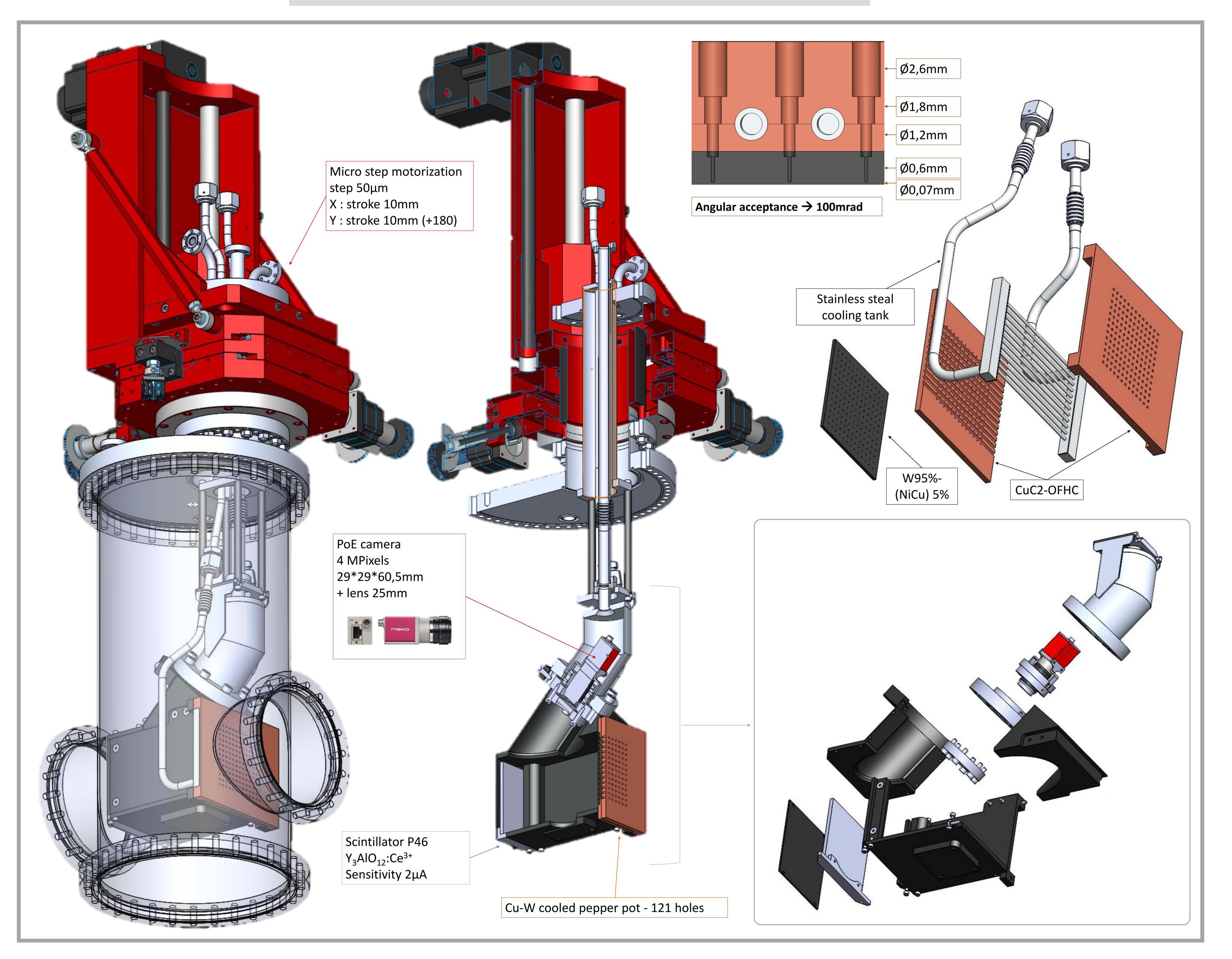
The selected beamlets interact with the **scintillator** and produce light....

... collect by a camera.

After the image collection, they are proced to compute the XX'YY' emittance and its 6 high resolution projections

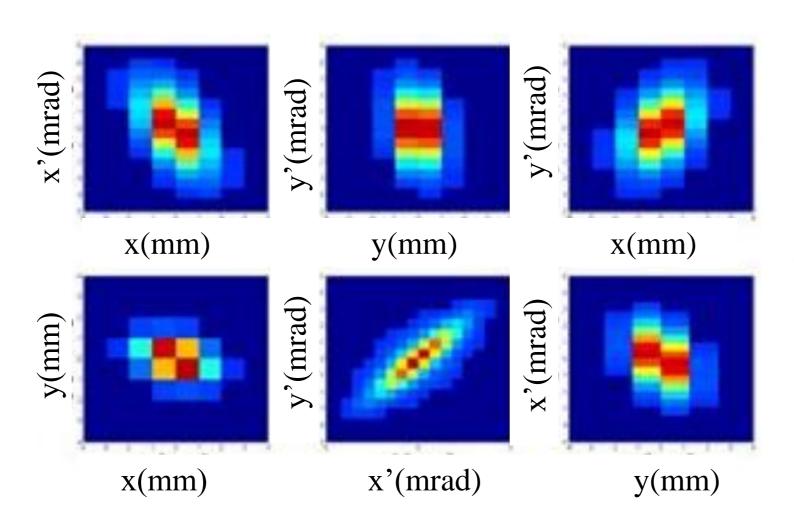


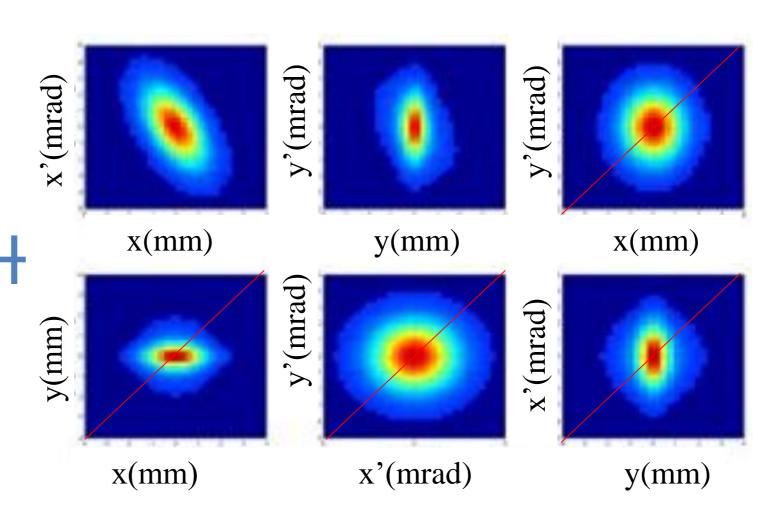
The system is **moved** by an **XY** microstep motorization to select other beamlets and multiply the number of measures.

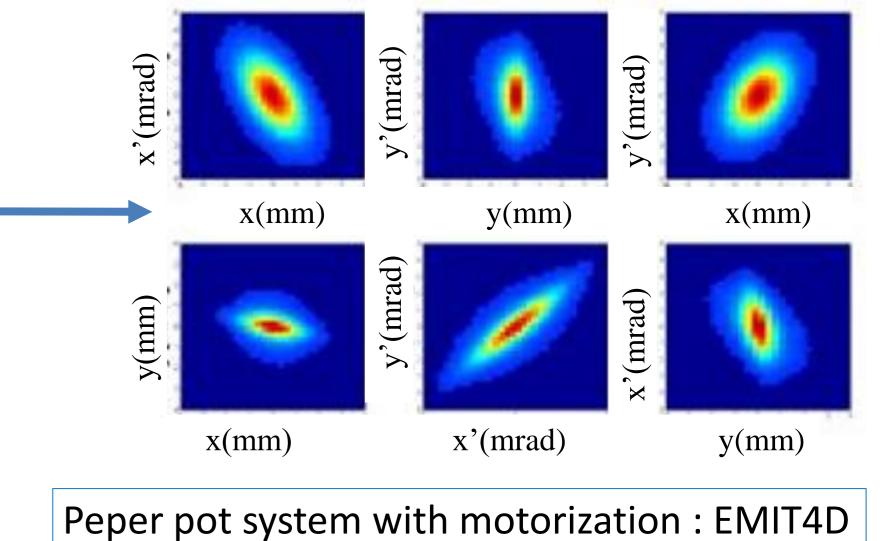


→ Beam specifications :

- Protons
- Øbeam = 20 to 100mm
- Maximum permissible power absorbed
 = 1kW average
- $I_{max} = 100 \text{mA}$
- Angular acceptance = 0 to 100mrad
- Energy = 100KeV to 3MeV







Pepper pot system without motorization 2D system with motorization