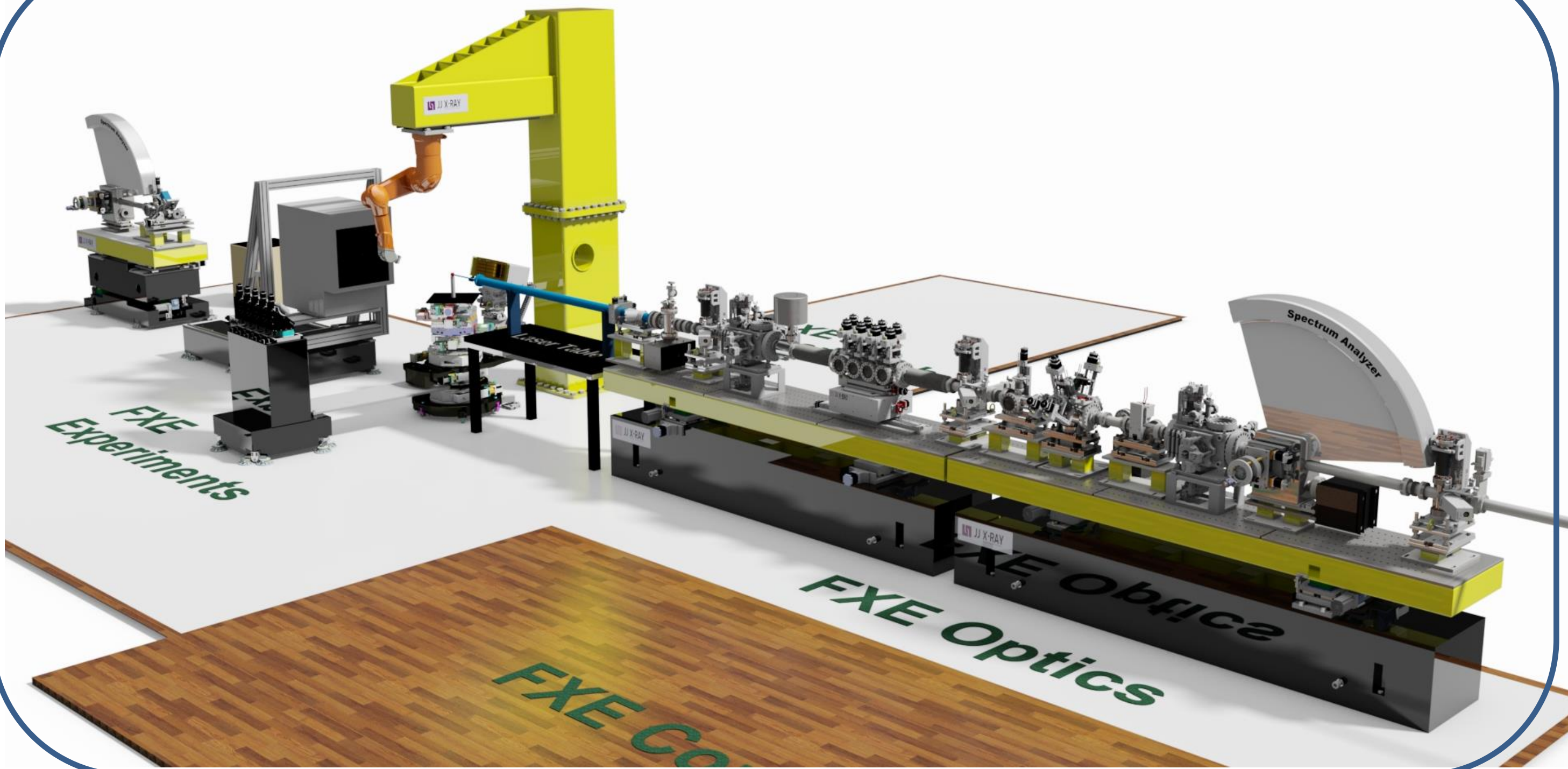




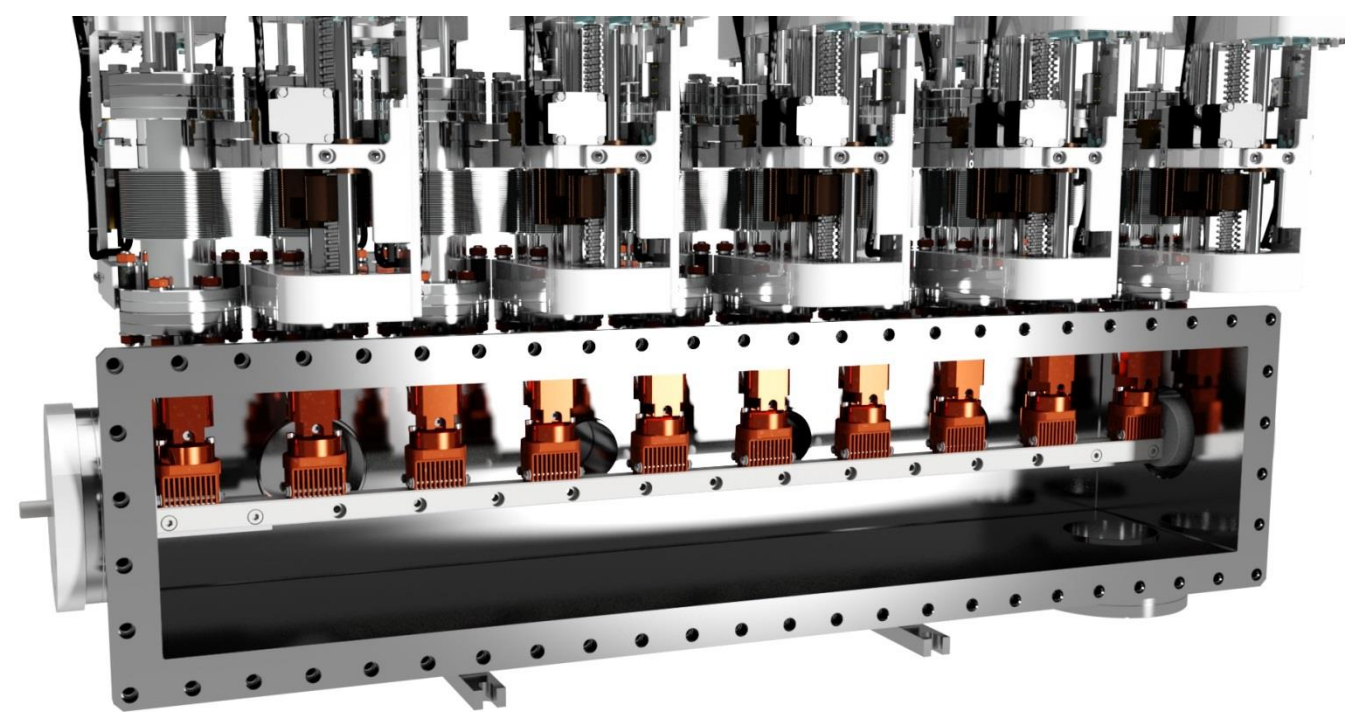
JJ X-RAY

Danish Science Design

The FXE instrument at the European XFEL

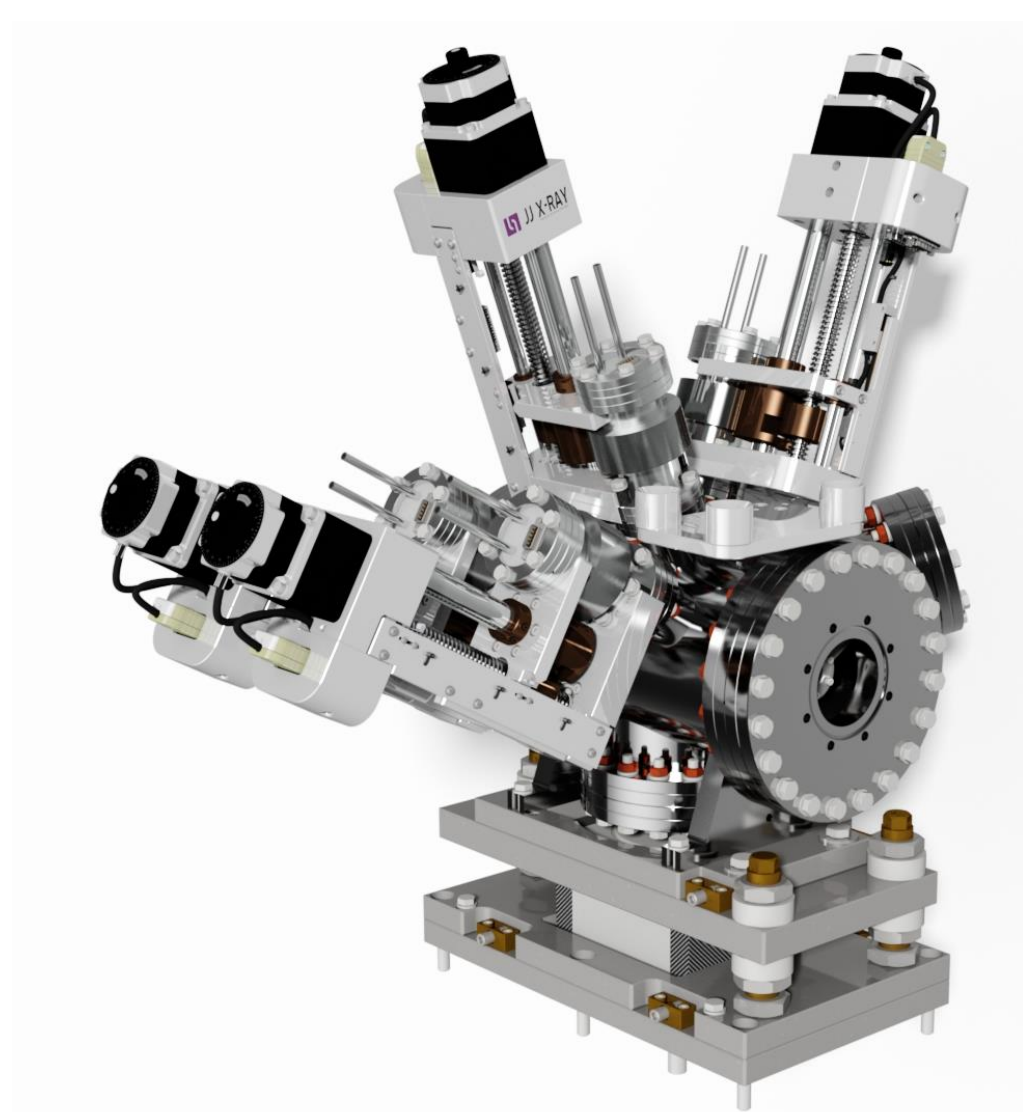


Beryllium CRL's



- 10 actuators holding up to 16 lenses each
- Water cooled
- Positioned in X-Y plane with 1 μm accuracy
- 5 axis of external positioning

Solid Attenuator



Collaboration between



JJ X-RAY
Danish Science Design

Von Hamos Spectrometer



- 16 curved Si crystals
- Individually positioned with $<15 \mu\text{rad}$ accuracy
- 3 actuators per crystal
- 48 motors in total

