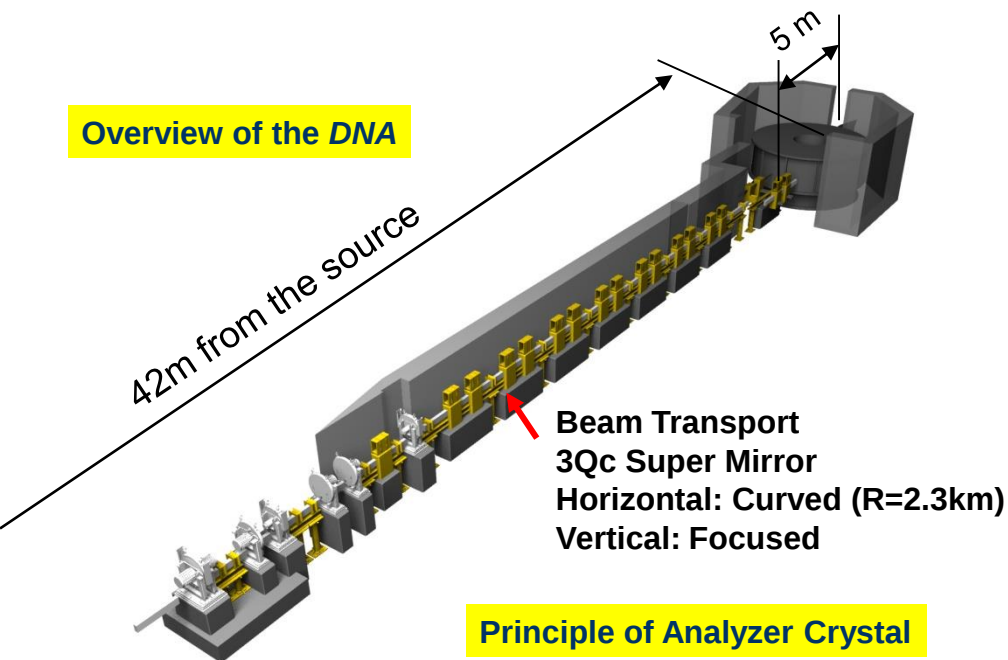
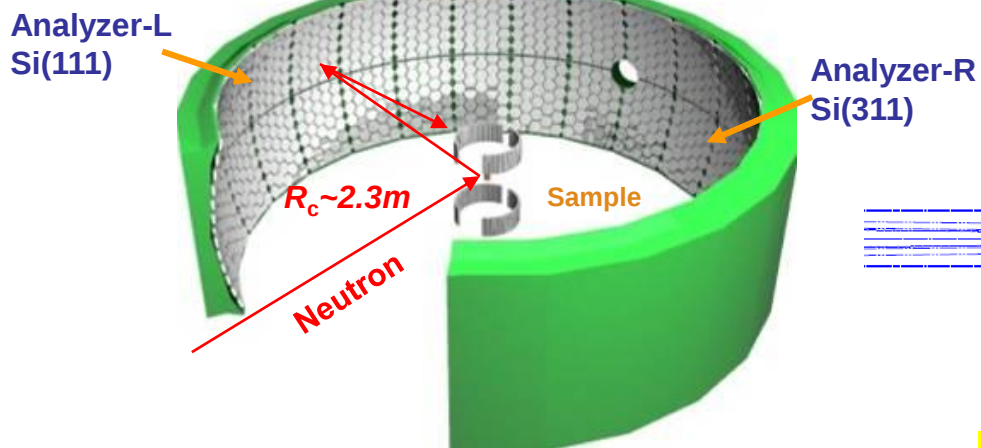


## ■ DNA is a High Energy Resolution Near-Backscattering Spectrometer

### Overview of the DNA



### Principle of Analyzer Crystal



Source: Liq.H<sub>2</sub> Coupled Moderator (BL02)

Moderator-Sample:  $L_1 = 42\text{ m}$

Sample-Detector:  $L_2 = 4.3\text{ m}$ ,

Pulse-shaping device:  $L_{ch} = 7.75\text{ m}$

Analyzer Bank: Spherical ( $R=2.3\text{m}$ )

Si(111)&Si(311)@ $\theta_B=87.5$  [deg.]

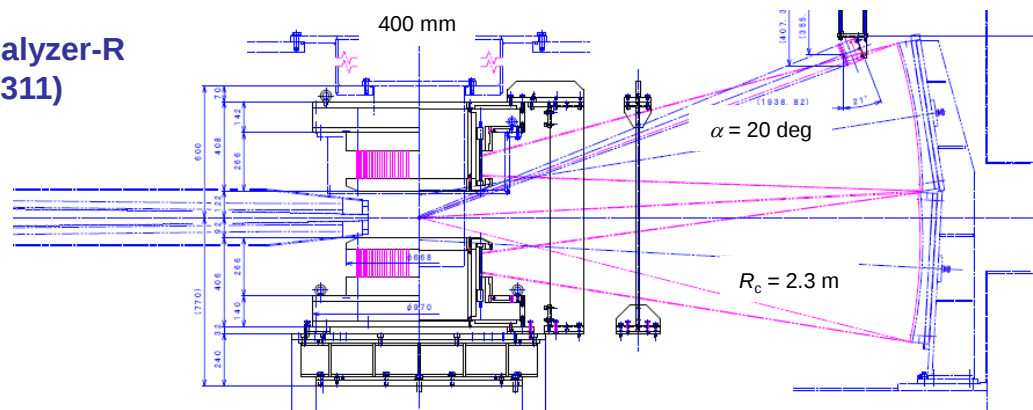
Si(111) :  $\delta E = 1.6\text{ }\mu\text{eV}$ ,  $Q_{max} = 1.9\text{ }\text{\AA}^{-1}$ @elastic

Si(311) :  $\delta E = 7\text{ }\mu\text{eV}$ ,  $Q_{max} = 3.8\text{ }\text{\AA}^{-1}$ @elastic

Horizontal Scat. Ang.:  $-164. < 2\theta_s < +164.$  [deg]

Vertical Scat. Ang.:  $-14. < 2\theta_s < +20.$  [deg]

High efficiency by RRM



### Section view of the scattering vessel