

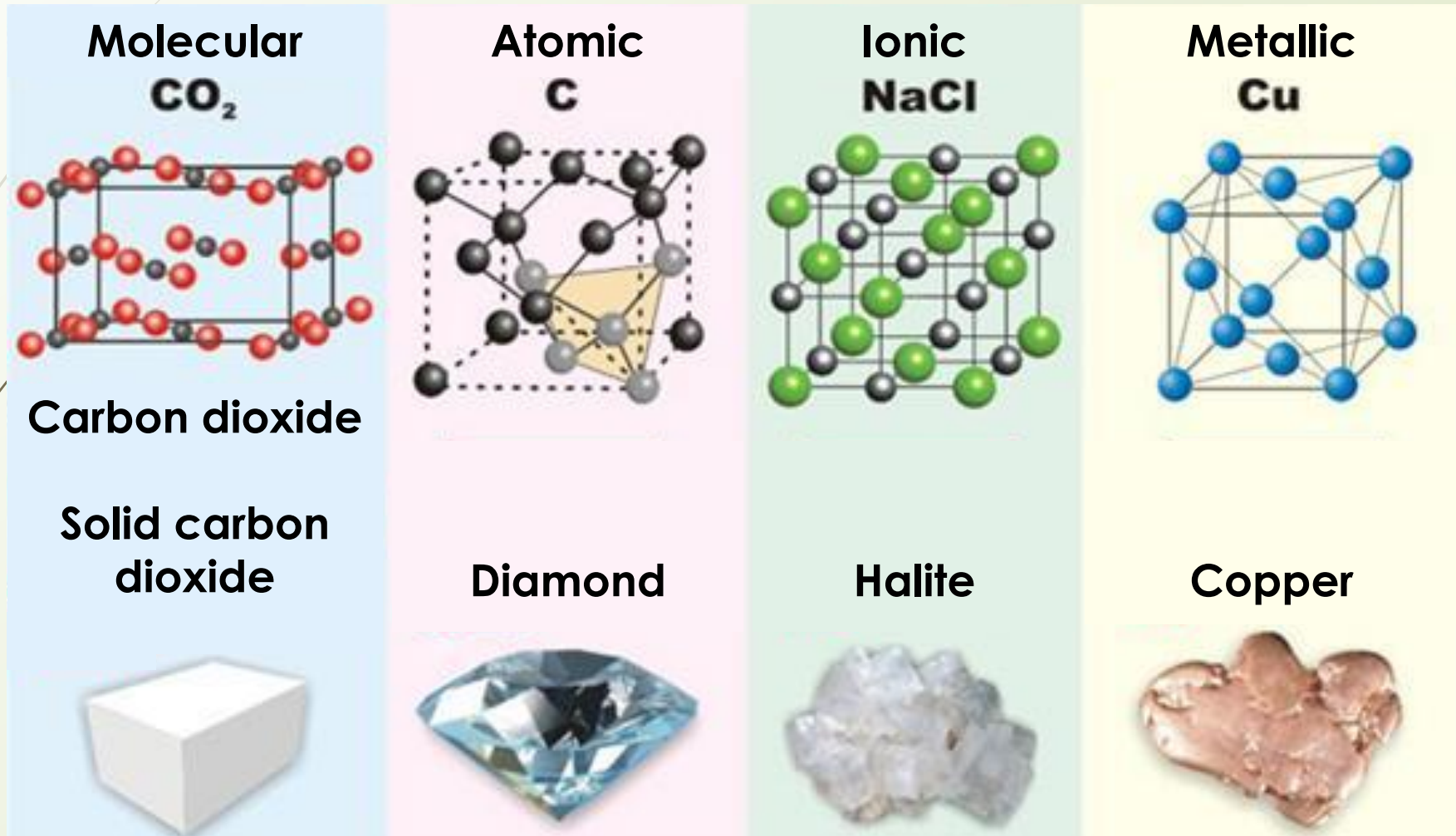
# National Research University of Information Technologies Mechanics and Optics

Department of Optical Information technologies and materials

Wide-angle X-ray scattering (WAXS) geometries.  
In-plane diffraction geometry; parallel beam  
geometry; Bragg–Brentano theta-theta and  
theta-2 theta geometry

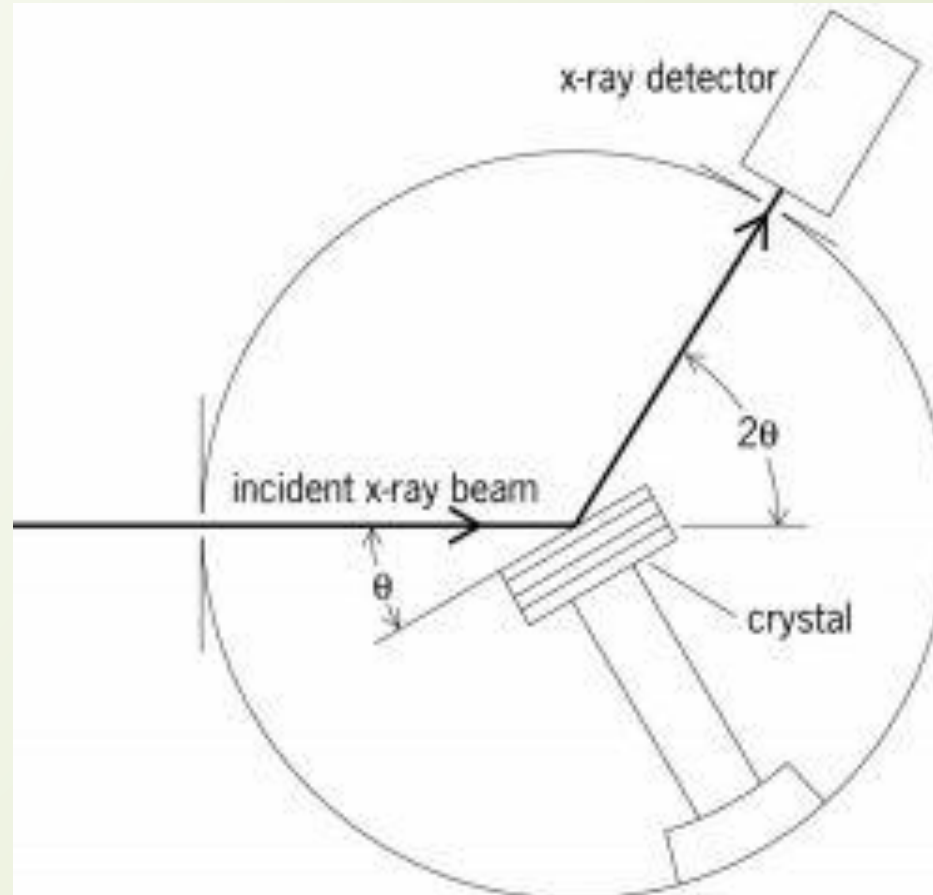
Lector : Nuriev R. K.  
Student: Tuzova U. V.  
Group : V4127c

# WAXS is often used to



# Difference between WAXS and SAXS

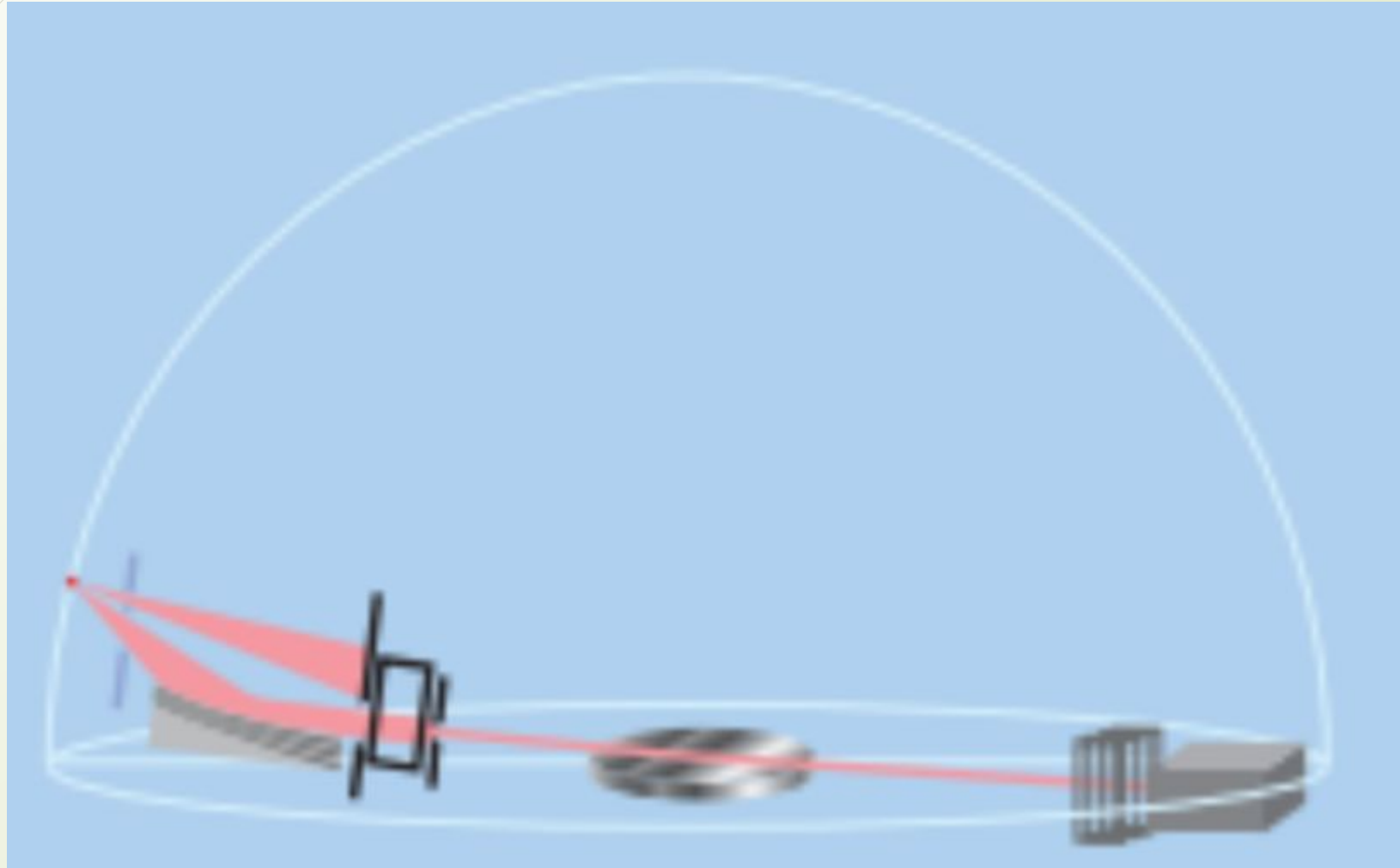
Small angles  
 $0-10^\circ$



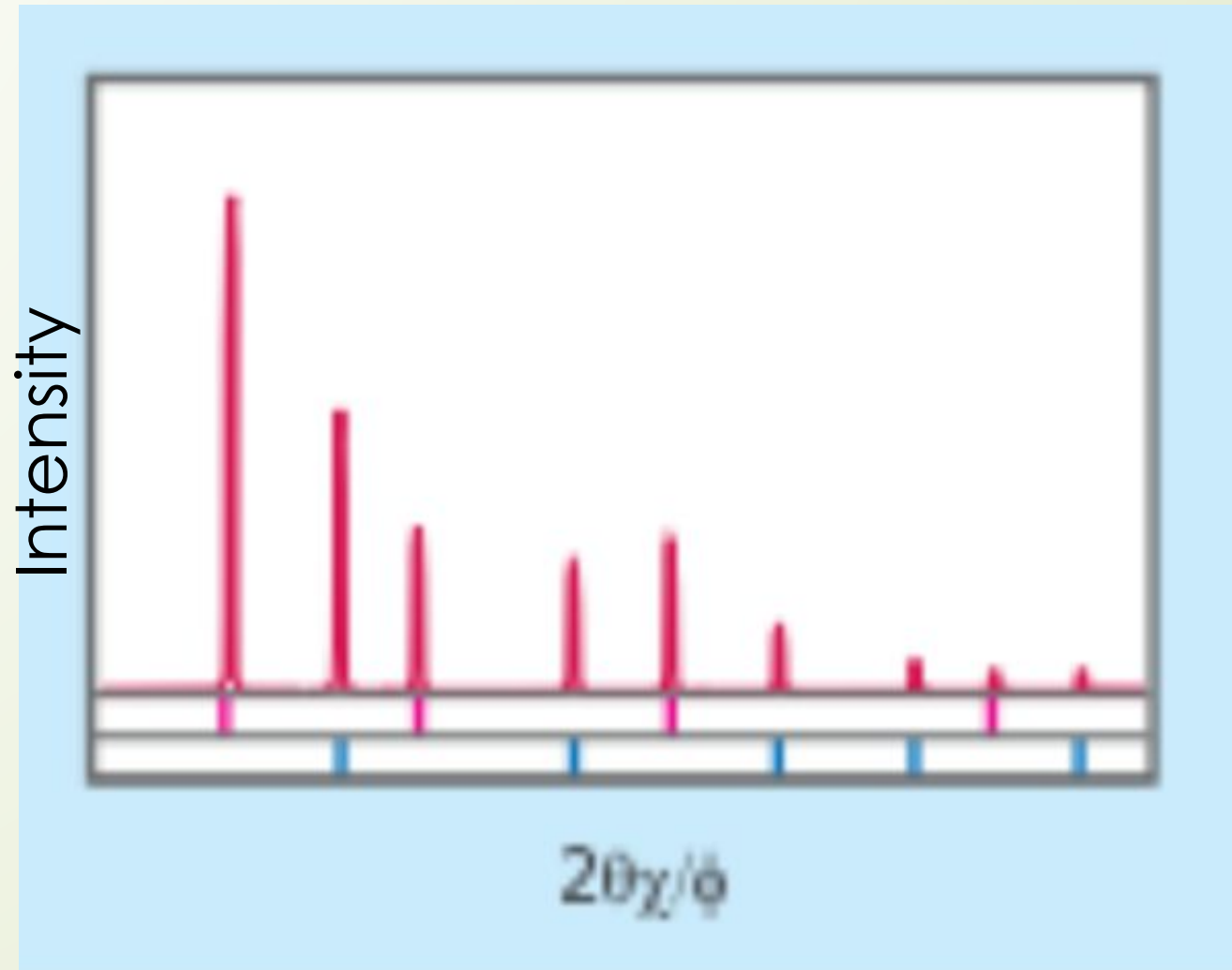
Wide angles  
 $10-160^\circ$

the distance from sample to the detector is shorter and thus diffraction maxima at larger angles are observed

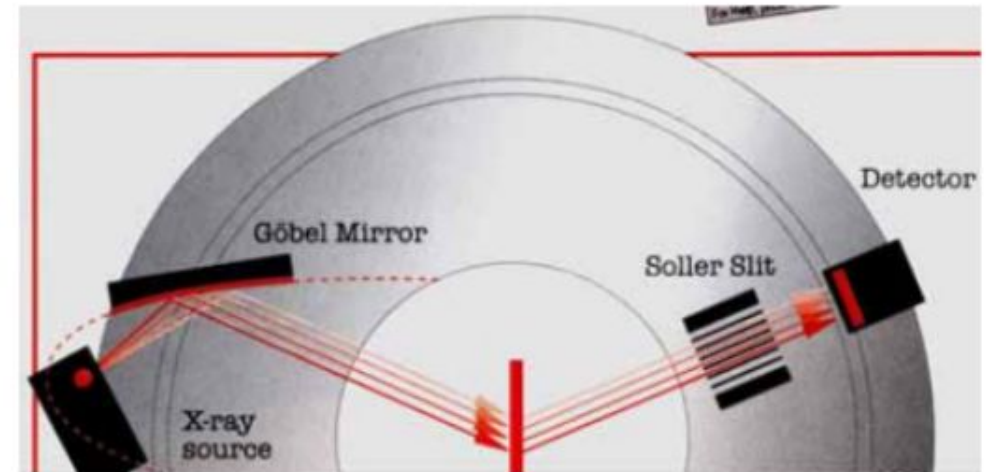
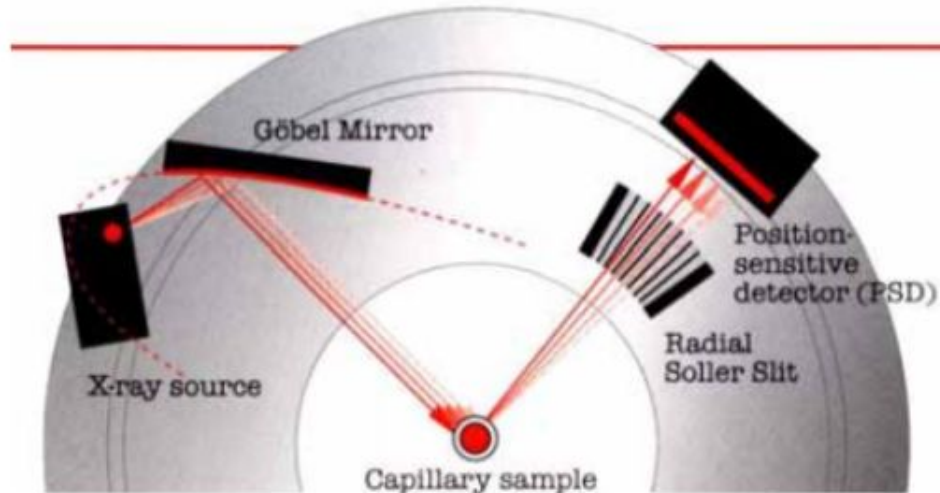
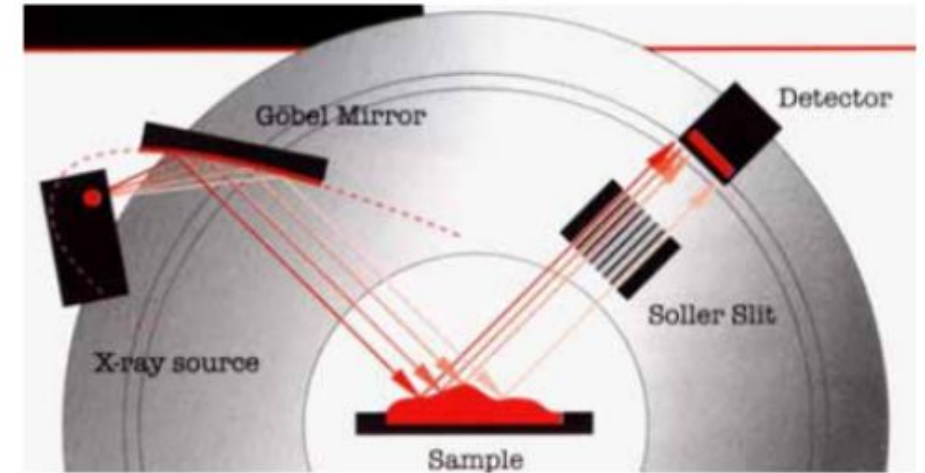
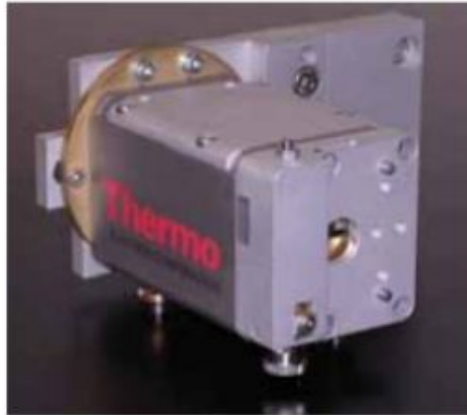
# In-plane diffraction geometry



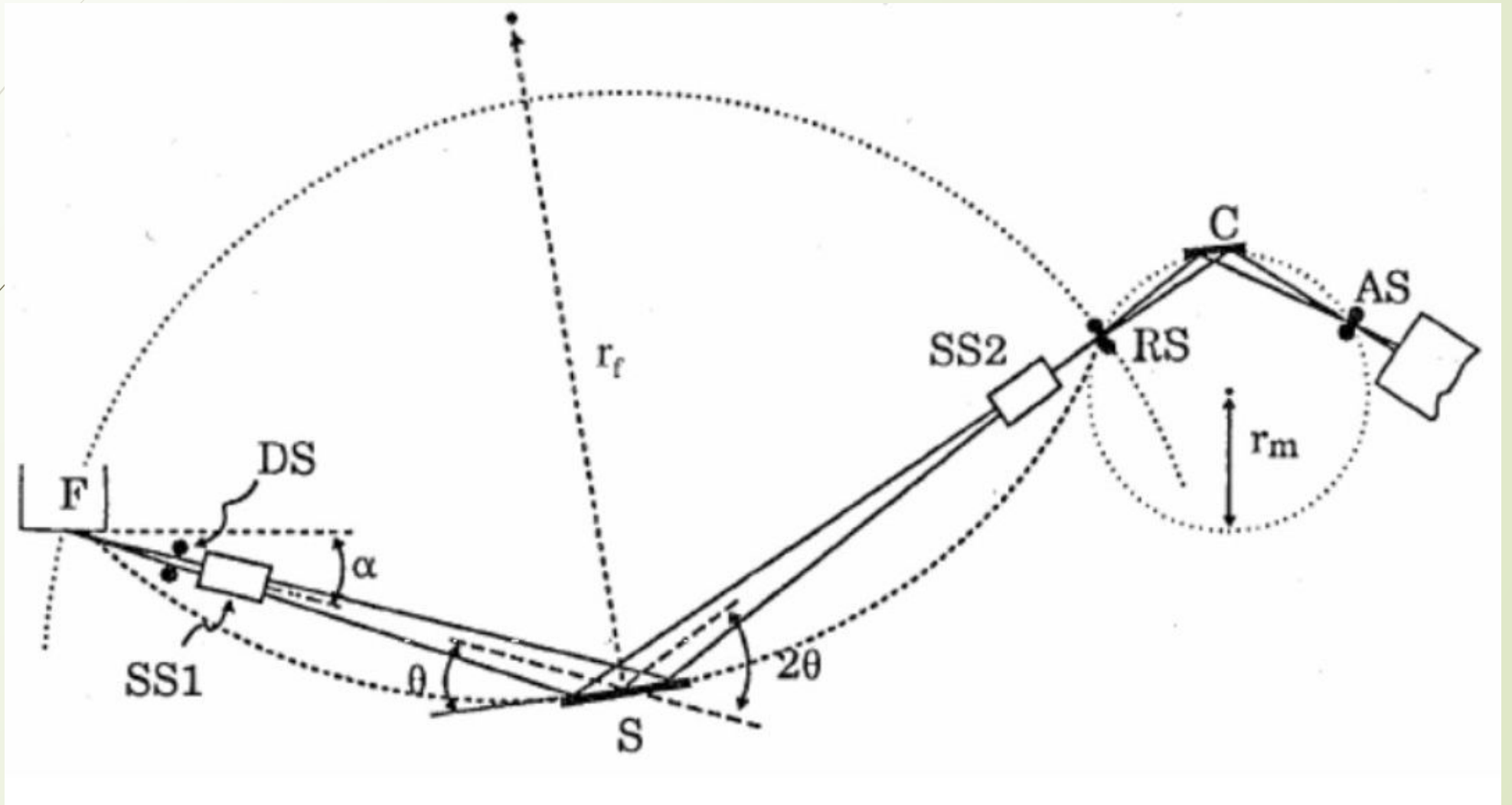
# In-plane diffraction graph



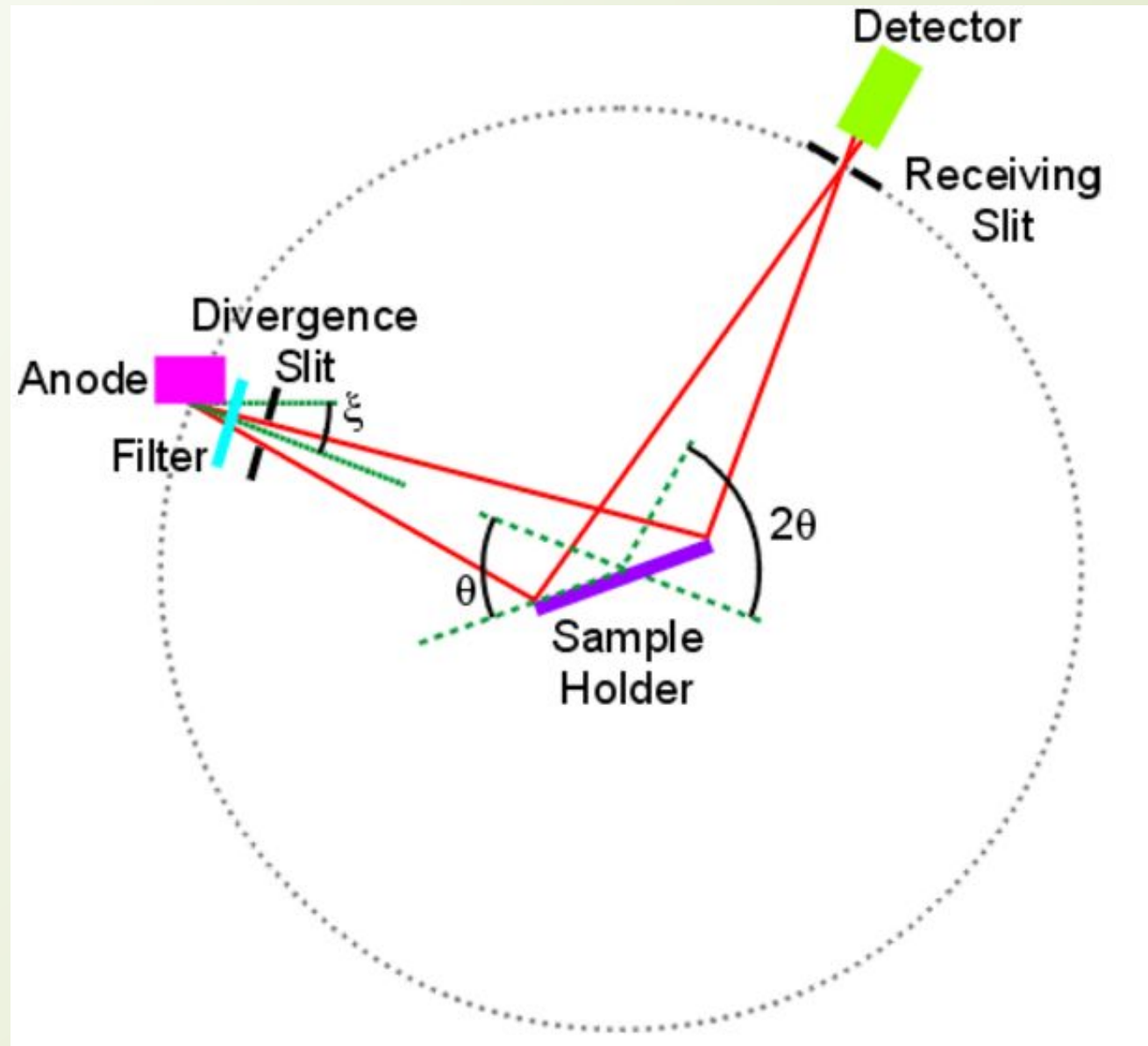
# Parallel beam geometry



# Bragg-Brentano geometry



# Theta-theta geometry

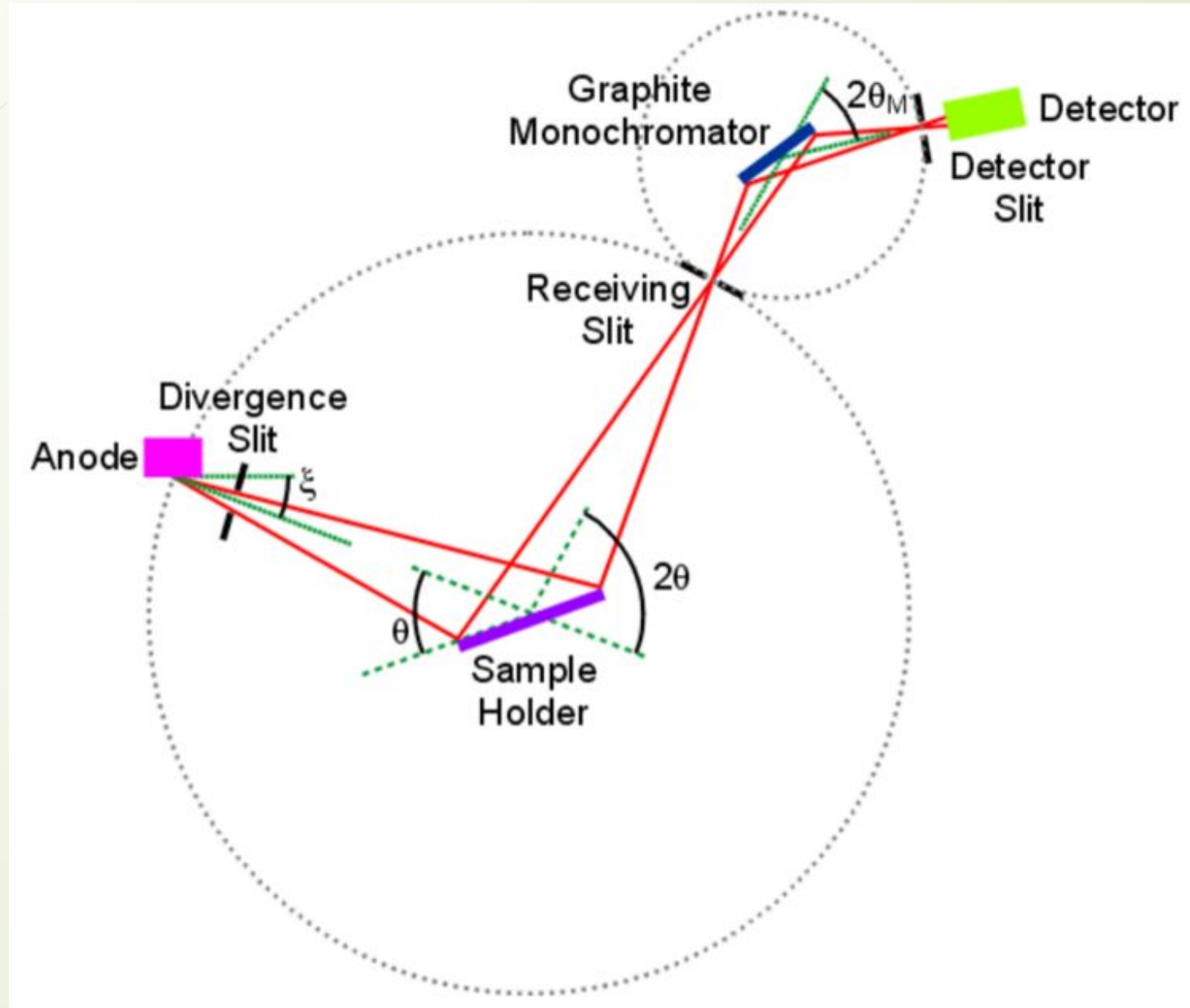




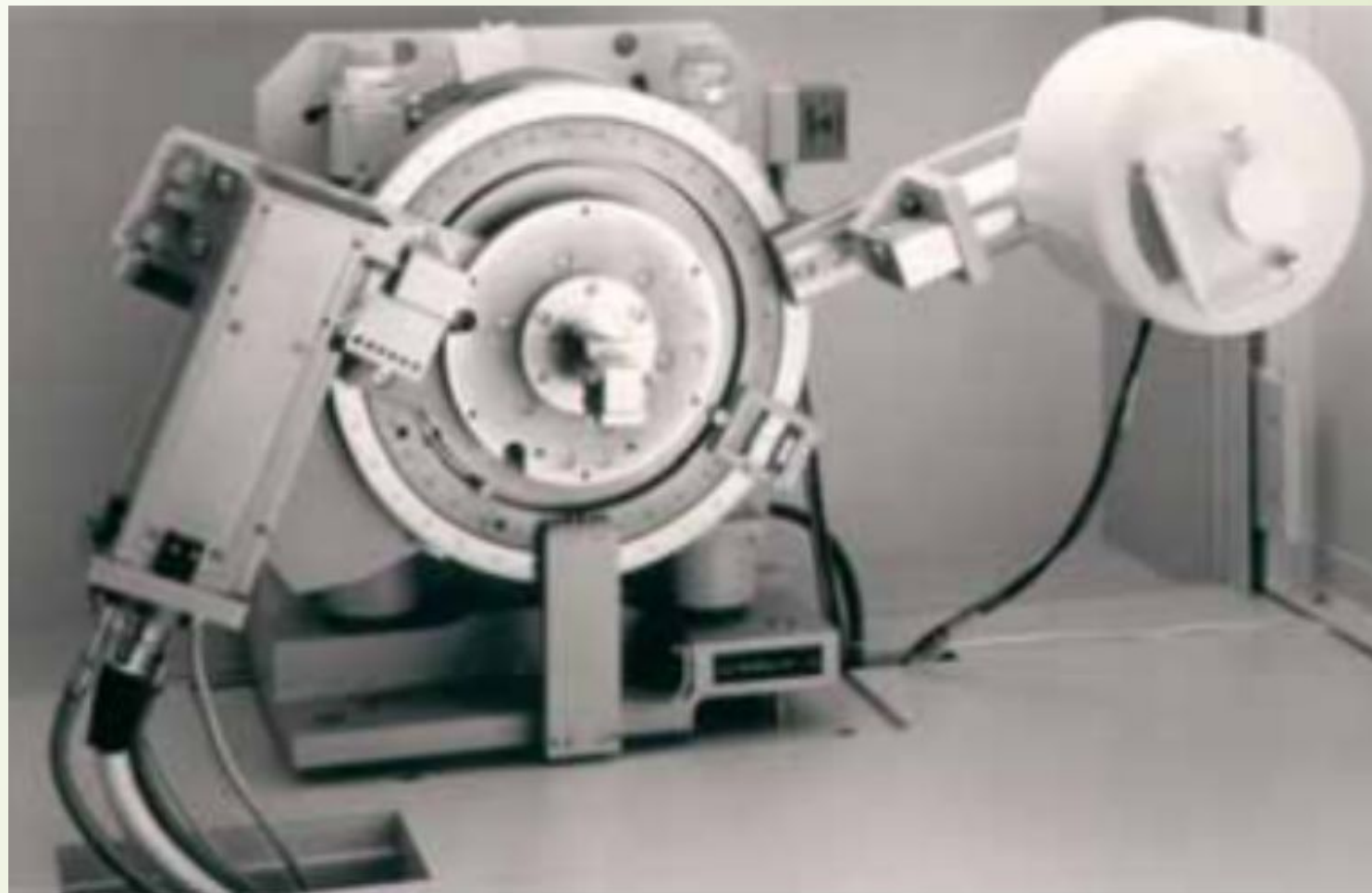
# Theta-theta geometry



# Theta-2 theta geometry



# Theta-2 theta geometry



*Scintag Pad X*



Thanks for your attention