Thickness Measurements Using Birefringence (10 points)

Part A. Measurement System Setup (2.3 points)

A.1 (0.3pt)

$\lambda =$

$\theta =$

A.2 (0.2pt)

$\theta =$

A.3 (0.8pt)

$\theta =$

$\lambda_{\text{Peak}} =$

$\alpha =$

A.4 (0.3pt)

$\varphi_\perp =$

$\varphi_\parallel =$
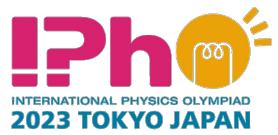
A.5 (0.2pt)

$I_{\text{Offset} \perp} =$

$I_{\text{Offset} \parallel} =$

A.6 (0.5pt)

$I_\perp =$

$I_\parallel =$

Part B. Measurement of transmitted light intensities (4.7 points)

B.1 (2.0pt)

θ_{Stage}/degree	θ/degree	λ/nm	$I_{\perp}$/mV	$I_{\parallel}$/mV	I_{Total}/mV	I_{Norm}

B.1 (cont.)

θ_{Stage}/degree	θ/degree	λ/nm	$I_\perp$/mV	$I_\parallel$/mV	I_{Total}/mV	I_{Norm}

B.1 (cont.)

θ_{Stage}/degree	θ/degree	λ/nm	$I_{\perp}$/mV	$I_{\parallel}$/mV	I_{Total}/mV	I_{Norm}

B.1 (cont.)

θ_{Stage}/degree	θ/degree	λ/nm	$I_\perp$/mV	$I_\parallel$/mV	I_{Total}/mV	I_{Norm}

B.2 (1.0pt)
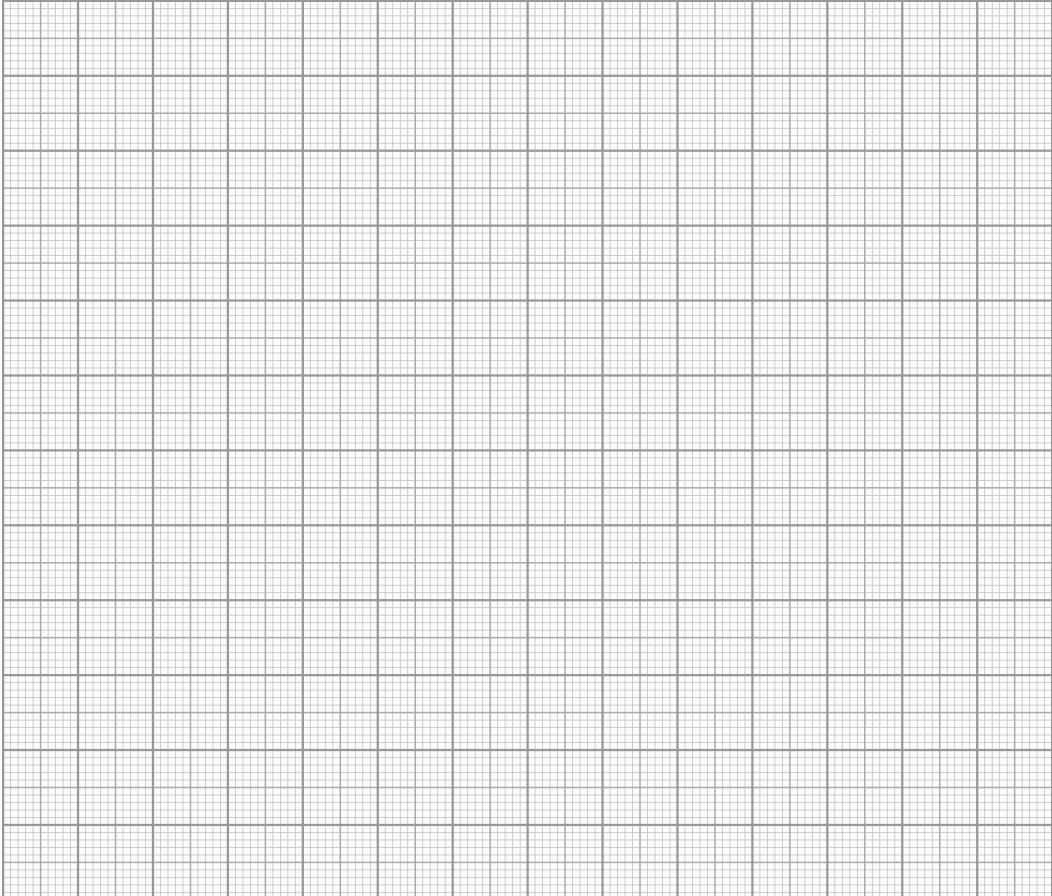
B.3 (0.2pt)

$\Delta\lambda_{\mathrm{FWHM}} =$
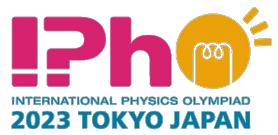
B.4 (1.5pt)
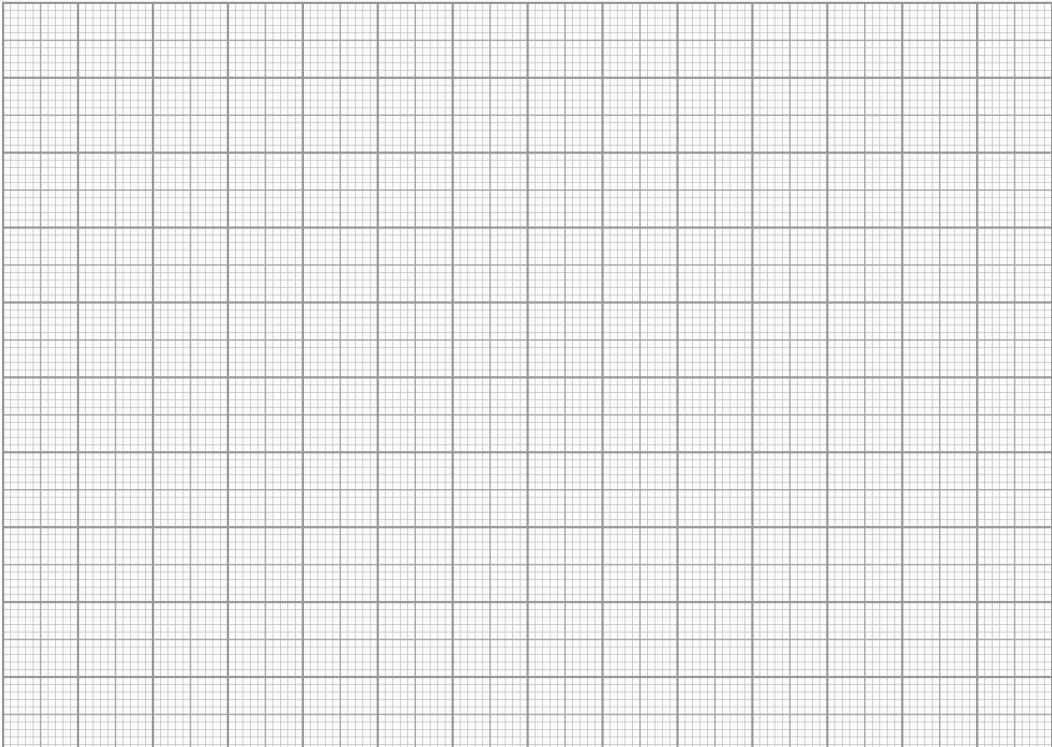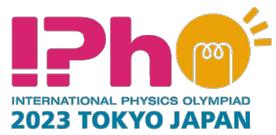
Part C. Analyses of Measured Results (3.0 points)

C.1 (1.5pt)

$\lambda =$

$m =$

C.2 (1.5pt)

$L =$