Experimental Question 2

MARKING SCHEME

Exp. II-A:

(1) θ_p-R data, calculate C 1.2 Points

0.3 points per 60 degree: 0.3x3 = 0.9 points, transfer to C: 0.3 points

(2) Plot 1.2 Points

x-axis: 0.2, y-axis: 0.2, data plotting: 0.4, linear slope region: 0.2, symmetry: 0.2

Subtotal: 2.4 Points

Exp. II-B:

(1)R_{max}, $R_{min,}$ C_{max}, C_{min} 0.1x8 = 0.8 points

(2)Jmax, Jmin 0.8x2 = 1.6 points

(3)β 0.2 points

Subtotal: 2.6 Points

Exp. II-C:

(1) R-I data, calculate C, and plot C versus I 1.3 Points

R: 0.2, I: 0.2, C: 0.2,

Plot: x-axis 0.2, y-axis 0.2, plotting 0.3

Plot: data points at max.-slope 0. 3 for more than 5 points, 0.2 for less than 5 points

(2) Transfer to J-I plot 0.8 Points

Transfer to J: linear part 0.2, maximum part 0.2

Plot: x-axis: 0.1, y-axis: 0.1, plotting 0.2

(3) G 1.0 Points

Error of slope 0.5 Points

ΔG 0.5 Points

(4) η 0.5 Points

Δη 0.4 Points

Subtotal: 5.0 Points

Total: 10 Points