

# Lab 2b: Hardness Testing

## Group 2d

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Talk about toughness and how it is measured (different scales, units, equations). Describe in more detail the relationship between toughness and temperature - for FCC and BCC.

Talk about sample prep.

Procedure for charpy toughness test. Reference tables and figures, including lots of data.

Procedure for SEM and EDS. Reference figures.

Analysis of data. Compare to literature values. Ductile to brittle transition(report as temp. range)?

Sources of Error(fluctuations in temperature)?

Appendix:

	1	2	3	4	5
As-Received 1018 Steel	0	0	0	0	0
As-Received 6061 Aluminum	0	0	0	0	0

Table 1: Charpy test data

Figure 1: Charpy plots

Figure 2: SEM images