

WORKSHEET FOR THE BI-SN PHASE DIAGRAM EXPERIMENT

Section _____ Date _____

Lab Partners _____

Equipment

Balance _____ Voltmeter _____

Computer _____ Software _____

Characteristics of thermocouples used

#	Thermocouple Type	Temperature Range, °C	Typical Temperature Error, °C	Reference Junction Type/Model
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Specimens

Raw Materials

Element	Purity %	Melting Point, °C	Supplier	Product Number
Bismuth				
Tin				

Prepared specimens

#	Nominal Composition	Bismuth Weight, g	Tin Weight, g	Total Weight g	Actual Composition
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Compositions are given in weight percent.

Cooling Curves

Data acquisition and storage

#	Compositions in the File	Sampling Rate, Hz	Maximum Temperature °C	Minimum Temperature °C	File name (* .csv)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Compositions are given in weight percent.

Analysis of the Cooling Curves

#	Actual Composition	Transition Temperature # 1, °C	Transition Temperature # 2, °C	Transition Temperature # 3, °C	Typical Temperature Error, °C
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Compositions are given in weight percent.

Notes

Preliminary phase diagram:

