

**The Sun and Solar Wind:
A Search for the Beginning**

**MASS, MASS – Who has the MASS?
Analyzing Tiny Samples**

STUDENT REPORTING/DATA SHEET

Scientist: _____

Robot: _____

PART 1.

- a. Write some of your ideas about methods that you might use to distinguish experimentally among the elements Pn, Nik, Di, and Q in the space below.

- b. Describe the method that you have chosen for this activity in the following space.

- c. Collect the data that you have determined will distinguish among the elements and record it for elements ¹Pn, ¹Nik, ¹Di, and ¹Q in the table below.

DATA TABLE #1	
“Element”	Results of Observation (units)
¹ Pn	
¹ Nik	
¹ Di	
¹ Q	
⁵ Pn	
² Nik	
³ Nik	
² Di	
⁴ Di	

- d. After collecting your data, state whether or not your chosen method is adequate for distinguishing among the new elements? Include the reasons for your decision in the answer.

PART 2

- a. Average value for Pn: _____
- b. Average value for Nik: _____

PART 3

- a. Fractional abundance of:

¹Di _____
²Di _____
⁴Di _____

- b. Percent abundance of:

¹Di _____
²Di _____
⁴Di _____

- c. Weighted average value for the element Di: _____

PART 4

- a. Identity of the unknown element: _____