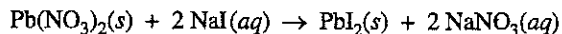


AP Chem - Unit 2

2008 FR Question

3. A 0.150 g sample of solid lead(II) nitrate is added to 125 mL of 0.100 M sodium iodide solution. Assume no change in volume of the solution. The chemical reaction that takes place is represented by the following equation.



- List an appropriate observation that provides evidence of a chemical reaction between the two compounds.
- Calculate the number of moles of each reactant.
- Identify the limiting reactant. Show calculations to support your identification.
- Calculate the molar concentration of $\text{NO}_3^-(aq)$ in the mixture after the reaction is complete.
- Circle the diagram below that best represents the results after the mixture reacts as completely as possible. Explain the reasoning used in making your choice.

