

## Chapter 19

Use with Section 3

## ENRICHMENT

## ● Transition Elements

## The Actinide Group

The actinide group is a series of elements that are all radioactive. There are 15 elements in the actinide group, but only four of them have been found in any appreciable amount in nature. Actinium, thorium, protactinium, and uranium are the four elements that occur naturally. All of the elements that have been artificially produced are referred to as the transuranium elements. It is easy to remember the transuranium elements as the ones that have an atomic mass greater than or equal to 93. Many of the transuranium elements have been named in honor of important scientists or important scientific institutions.

For the transuranium elements listed below, describe how they are created, when they were discovered, their melting point, their boiling point, any important uses for them, and who or what they were named for (if applicable).

## 1. Americium

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Thorium 90 <b>Th</b> 232.038	Protactinium 91 <b>Pa</b> 231.036	Uranium 92 <b>U</b> 238.029	Neptunium 93 <b>Np</b> 237.048	Plutonium 94 <b>Pu</b> 244.064	Americium 95 <b>Am</b> 243.061
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Actinide Series

## 2. Curium

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## 3. Berkelium

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## 4. Einsteinium

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## 5. Mendeleevium

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