

## Deluxe Kit vs. Student Kit: A Comparison

### Solid-State Model Kits: Two Kits, One Instruction Manual

#### ► How Do the Kits Differ?

This Instruction Manual is designed for use with both ICE Solid State Model Kits—Deluxe and Student. How do these kits differ? *The primary difference is the number of spheres and rods included*, which influences the number and size of the structures you can build.

**Deluxe Kit:** build > 80 different solid state structures—every structure shown in this manual. In a very few cases, only a unit cell can be built with one kit

**One Student Kit:** build > 60 different structures; however:

**Two Student Kits:** build more structures *simultaneously* than with one Deluxe Kit

**There are two ways to build all the structures in this manual:**

1. combine the contents of two Student Kits
2. use one Deluxe Kit

Note that you can divide one Deluxe Kit between two groups of students.

#### ► Compare Contents of the Two Kits

Kit Version	# Different Structures	Base Plates	Metal Rods	Templates	Colorless Spheres	Green Spheres	Blue Spheres	Pink Spheres	Yellow Spheres	Spacer Tubing, package	Instruction Manual
Deluxe	> 80	2	39	15	56	39	44	39	17	1	1
Student	> 60	2	27	15	27	19	22	32	–	1	1

Replacement parts are available for purchase at the ICE Store (<https://icestore.chem.wisc.edu/products/replacement-parts>)

#### ► Which Structures Require a Deluxe Kit or Two Student Kits?

The symbol ② occasionally appears in the directions for a structure (as well as in the Table of Contents and Index). The ② indicates that the structure requires more spheres and/or rods than are contained in one Student Kit. These structures are listed below; the directions for building them are on the pages listed.

Fluorite (alternate)	page 16
BiF <sub>3</sub>	page 19
Cu <sub>2</sub> AlMn	page 20
Cubic Close Packing (with body diagonal cube)	page 26
Cadmium Chloride	page 34
Corundum ( $\alpha$ -Alumina)	page 37
Tl <sub>2</sub> Ba <sub>2</sub> Ca <sub>2</sub> Cu <sub>3</sub> O <sub>10</sub>	page 47
Spinel, MgAl <sub>2</sub> O <sub>4</sub>	page 48
Graphite	page 67
Tridymite (Silica)	page 70

7/11/2018