

THE LARGEST CRYSTAL

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How large can crystals grow? What teacher of mineralogy but has been asked this question many times. He would probably reply that there is no limit but if he tried to tell of the biggest that had been found he would find it difficult to give an exact answer.

This is not an idle question. Large crystals of any substance imply not only abundance of their constituents but extraordinary concentration at one place and unusual constancy of conditions during long periods. The minerals that are often found in large crystals are at least in part composed of the less common elements so that the problem of concentration in time and place is doubly interesting and difficult. How do they support their own weight during growth and how maintain form and outline? Why is there such a varying maximum of size in different mineral species?

Whatever their interest and significance, large crystals would be more intelligible if we had more exact data as to their actual limits of size. I have myself made a very few observations of actual dimensions of crystal giants and would like to collect others. Will not every reader of this magazine supply such data as he possesses? I will make it a welcome duty to collate and publish the information. The more various the range of minerals included may prove to be the more valuable will be the information. Each case should carry with it such data as are available as to the place and kind of deposit where it was found. The information given below is in part derived from various publications. Where no author is quoted the data are from specimens in the Harvard Mineralogical Collection.

<i>Stibnite</i>	Japan.....	Crystals up to 60×5 cm.	Wada
<i>Galena</i>	Isle of Man.....	Cubes of 25 cm.	Greg and Lettsom
	Miss. Valley.....	Cube of 16 cm.	
<i>Pyrite</i>	Alaska.....	Cube of 13 cm.	
	Colorado.....	Cube 12½×10×14 cm.	
	Elba.....	Octahedron 15×15×23 cm.	
<i>Fluorite</i>	Cornwall.....	Cleavage octahedron 14 cm. on edge	
	Cumberland.....	Cube 13 cm. on edge	
	Jefferson Co., N.Y....	Cubes more than 30 cm.	Beck

<i>Calcite</i>	Iceland.....	Rhombohedron 6×2 meters	Des Cloizeaux
	Sterling Bush, N.Y.....	Rhombohedron 109×95×46 cm. Weight about 1000 pounds	Whitlock Farrington
	Missouri.....	Scalenohedron 76 cm. long	
<i>Quartz</i>	Switzerland.....	Weight about 1400 pounds	Hintze
<i>Corundum</i>	Transvaal.....	61×30 cm. Weight 335 pounds	Hall
<i>Gahnite</i>	Sterling Hill, N.J.....	Octahedron 12.5 cm. on edge	Canfield
<i>Franklinite</i>	Sterling Hill, N.J.....	Octahedron 17.5 cm. on edge	Canfield
<i>Microcline</i>		No definite data	
	Maine.....	"up to 20 feet across" (6 meters)	Bastin
<i>Pyroxene</i>	Hybla-Ontario.....	Cleavage 16×16×40 cm.	
<i>Hornblende</i>	Sterling Hill, N.J.....	15×15×46 cm.	
<i>Spodumene</i>	Etta Mine.....	42 feet by 5 feet 4 in. (12.7× 1.7 meters) Weight 90 tons	Ziegler
<i>Beryl</i>	Albany, Maine.....	18×4 feet (5.5×1.2 meters) Weight 18 tons	Gedney and Berman
<i>Garnet</i>	Rogers Mine, North Creek, N.Y.....	Dodecahedrons up to 2 ft. (61 cm.) diameter	Miller
<i>Scapolite</i>	Templeton Tp., Quebec	23×25.5×35 cm. Weight 75 pounds	Parsons
<i>Zircon</i>	Brudenell Tp., Ontario.....	10×10×30 cm. Weight of 15 pounds	Parsons, Kunz
<i>Titanite</i>	Renfrew Co., Ont....	10×12×5 cm. twin	
<i>Mica</i> Phlogopite	Lacy Mine, Ontario	14 feet diam. 33 ft. long (4.2× 9 meters) yielded 60 tons trimmed mica. (Estimated total weight not less than 90 tons)	Ellsworth
<i>Barite</i>	Duften, England....	Weight 100 pounds	Greg and Lettsom
<i>Gypsum</i>	Chile, Braden Mine...	10 ft.×3 in. (3 meters×8 cm.)	Lindgren
	Utah, Wayne Co....	4 feet by 6 inches (1.2×.15 meters)	Talmage
	Mexico, Naica.....	5.5 feet by 5 inches (1.67×.13 meters)	Foshag

