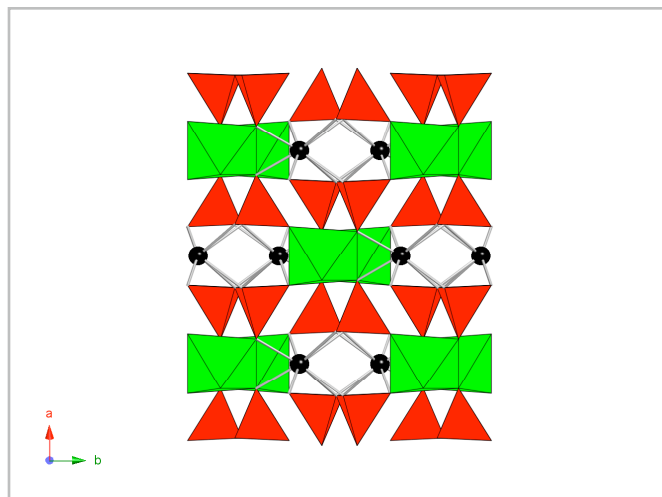


diopside

CaMgSi2O6

65.1.3a.1

mineral group	pyroxene
mineral subgroup	clinopyroxene
date named	1800
name derivation	Named by d'Andrada from the Greek, dis, meaning two kinds and opsis, meaning opinion.



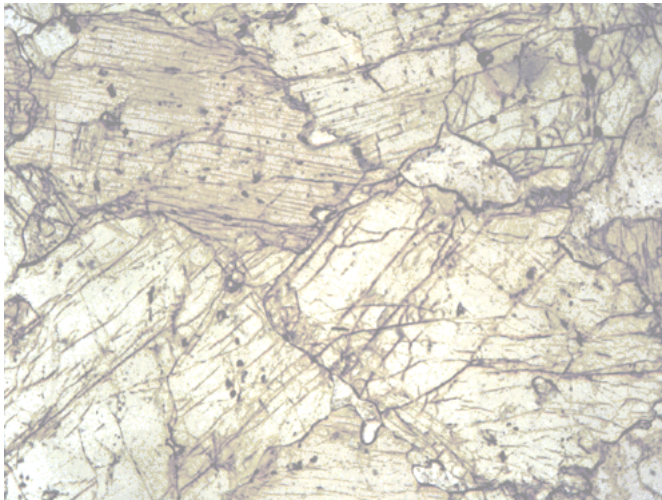
with garnet (grossular)
 Harvard ID # 93610
 Locality: Val d'Ala, Torino, Piedmont, Italy
 Horizontal Dimension: 4.8 cm

Dana class	single-chain silicate	
diagnostic properties	green, 90 degree cleavages, monoclinic crystals	
color	colorless, white, pale gray, green, purple	
luster	vitreous, dull	
streak	white, green, gray	
Mohs hardness	5.5-6.5	specific gravity 3.22
cleavage	perfect prismatic; {110}, perfect	
fracture & tenacity	uneven, conchoidal, brittle	
habits	usually small, rounded anhedral or euhedral grains; rarely short prismatic crystals, square or octagonal in cross section, or tabular or massive	
special properties	transparent to translucent; may exhibit chatoyancy and asterism	
reaction with acid	insoluble in hydrochloric acid	

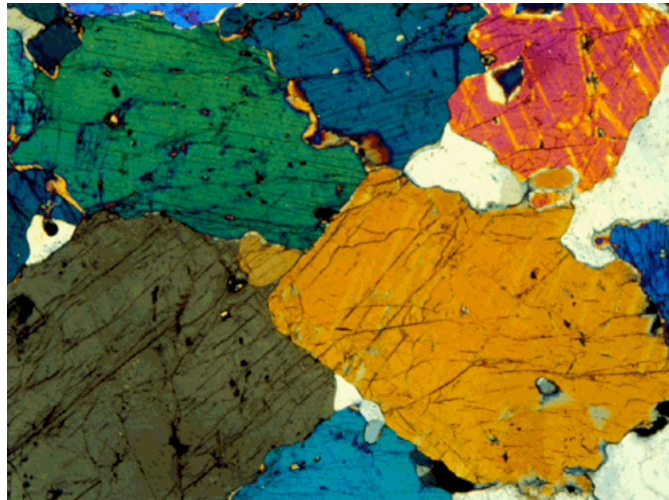
diopside
 $\text{CaMgSi}_2\text{O}_6$

65.1.3a.1

PPL



XPL



crystal class	prismatic
birefringence	0.031-0.024
a Axis	9.739
b Axis	8.913
c Axis	5.253
alpha	90
beta	106.02
gamma	90
Z	4

crystal system	monoclinic
reflectance	
space group	C2/c
2V	49-64
optic type	biaxial
optic sign	+
alpha epsilon	1.664-1.697
beta omega	1.672-1.706
gamma	1.694-1.728

optical comment

occurrence

Occurs in calcium-rich contact metamorphosed rocks, and as lenses in serpentized rocks. Also found in kimberlites. May occur with calcite, forsterite, chondrodite, monticellite, clinohumite, scapolite, wollastonite, grossular, vesuvianite, tremolite, and quartz.

selected localities

Franklin, Sussex Co., New Jersey; DeKalb, St. Lawrence Co., Willsboro, Essex Co., Amity, Orange Co., Natural Bridge, Jefferson Co., Sing Sing, near Ossining, Westchester Co., New York; Ducktown, Polk Co., Tennessee; Sloan II diatreme, Larimer Co., Italian Mountain, Aspen, Colorado; Crestmore, Riverside Co., California; U.S.A. Jeffrey mine, Asbestos and Orford, Sherbrooke, Quebec; Birds Creek, near Bancroft, Dog Lake, Storrington Township, Ontario; Canada. Schwarzenstein, Zillertal and Pragraten, Tirol, Austria. Val d'Ala, Torino, Piedmont, and St. Marcel, Val d'Aosta, Italy. Otokumpu, Finland. Ampandrandava and Andranodambo, Taolanaro (Fort Dauphin), Madagascar. Jaipir, Rajasthan, India.