

Pyrope, Mg₃Al₂(SiO₄)₃

Pyrope

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American Mineralogist 85 (2000) 532-542

Leverage analysis and structure refinement of minerals

11.4573 11.4573 11.4573 90 90 90 Ia-3d

atom	x	y	z	Wyckoff
Mg	0.125	0	0.25	24c
Al	0	0	0	16a
Si	0.375	0	0.25	24d
O	0.033	0.0503	0.6533	96h

Raman Active Modes

WP	A _{1g}	A _{1u}	A _{2g}	A _{2u}	E _u	E _g	T _{2u}	T _{2g}	T _{1u}	T _{1g}
96h	3	.	.	.	.	6	.	9	.	.
24d	.	.	.	.	.	1	.	3	.	.
24c	.	.	.	.	.	1	.	2	.	.
16a	.	.	.	.	.	.	.	.	.	.

Total number of modes:

$$3A_{1g} + 8E_g + 14T_{2g} = 25$$