

Table 23.6 Cubic, point group  $m\bar{3}m$  ( $O_h$ ) materials

	General	Static dielectric constant	Dissipation factor	Elastic stiffness tensor	Elastic compliance tensor
Material	$\rho$ (g/cm <sup>3</sup> ) Mohs hardness $\kappa$ (W/(m K))	$\epsilon_{11}$	$\tan \delta_1$ (f (Hz))	$c_{11}$ $c_{44}$ $c_{12}$ (10 <sup>9</sup> Pa)	$s_{11}$ $s_{44}$ $s_{12}$ (10 <sup>-12</sup> Pa <sup>-1</sup> )
Barium fluoride, BaF <sub>2</sub>	4.89 3 11 [23.25, 27]	7.33 [23.25]		91.1 (10) 25.3 (4) 41.2 (15) [23.7]	15.2 (1) 39.6 (7) -4.7 (1) [23.7]
Calcium fluoride, CaF <sub>2</sub> (fluorite, fluorspar, Irtran-3)	3.179 4.0 9.71 [23.25, 27]	7.4 [23.43]		165 (2) 33.9 (3) 47 (3) [23.7]	6.93 (14) 29.5 (3) -1.52 (11) [23.7]
Diamond, C	3.52 10 660 (0 °C) [23.27, 46]	5.5-10.0 [23.43]		1077 (2) 577 (1) 124.7 (6) [23.7]	0.951 (2) 1.732 (3) -0.0987 (6) [23.7]
Germanium, Ge	5.33 6 58.61 [23.25]	16.6 [23.25]		129 (3) 67.1 (5) 48 (3) [23.7]	9.73 (5) 14.90 (12) -2.64 (11) [23.7]
Lithium fluoride, LiF	2.639 4 4.01 [23.25]	9.1 [23.25]		112 (2) 63.5 (6) 46 (3) [23.7]	11.6 (1) 15.8 (2) -3.35 (13) [23.7]
Magnesium oxide, MgO	3.58 - 42 [23.25]	9.7 [23.43]	0.009 (10 GHz) [23.58]	294 (6) 155 (3) 93 (5) [23.7]	4.01 (4) 6.46 (12) -0.96 (2) [23.7]
Potassium bromide, KBr	2.753 1.5 4.816 [23.25]	4.9 [23.25]		34.5 (3) 5.1 (2) 5.5 (4) [23.7]	30.3 (6) 196 (6) -4.2 (3) [23.7]
Potassium chloride, KCl (sylvine, sylvite)	1.99 2 6.53 [23.25]	4.6 [23.43]		40.5 (4) 6.27 (6) 6.9 (3) [23.7]	25.9 (1) 159 (1) -3.8 (3) [23.7]
Potassium iodide, KI	3.12 - 2.1 [23.25]	5.6 [23.43]		27.4 (5) 3.70 (4) 4.3 (2) [23.7]	38.2 (8) 270 (3) -5.2 (3) [23.7]

Part D | 23.4