**Table 26A-1-001**. $BaMgF_4$. Piezoelectric strain constant $d_{i\lambda}^{\mathbf{T}}$ and piezoelectric stress constant $e_{i\lambda}^{\mathbf{T}}$ under isothermal condition at 20 °C [74Rec]. Differences between these isothermal constants and the corresponding adiabatic ones are smaller than a few percent.

| iλ | 11 | 12 | 13 | 26 | 35 |
|---|---|---|---|---|---|
| $d_{i\lambda}^{\mathbf{T}}$ [$\cdot 10^{-12}$ C N$^{-1}$] | 8.1 | 2.5 | –4.2 | –5.3 | –1.2 |
| $e_{i\lambda}^{\mathbf{T}}$ [$\cdot 10^{-1}$ C m$^{-2}$] | 6.1 | 2.8 | 0.63 | –2.6 | –1.4 |

**Table 26A-1-002**. $BaMgF_4$. Elastic constant $c_{\lambda\mu}^{\boldsymbol{E}}$ at 20 °C and thermoelastic constant $T_{\lambda\mu}^{\boldsymbol{E}}$ ($= \mathrm{d}\log c_{\lambda\mu}^{\boldsymbol{E}} / \mathrm{d}T$) at 0 °C [74Rec].

| λμ | 11 | 22 | 33 | 44 | 55 | 66 | 12 | 13 | 23 |
|---|---|---|---|---|---|---|---|---|---|
| $c_{\lambda\mu}^{\boldsymbol{E}}$ [$\cdot 10^{10}$ N m$^{-2}$] | 10.40 | 8.10 | 12.97 | 3.21 | 5.51 | 2.47 | 2.87 | 6.37 | 3.58 |
| $T_{\lambda\mu}^{\boldsymbol{E}}$ [$\cdot 10^{-4}$ °K$^{-1}$] | –0.94 | –1.37 | –3.97 | –2.7 | –2.0 | –2.7 | –0.6 | –2.4 | –0.5 |

**Table 26A-1-003**. $BaMgF_4$, $BaZnF_4$. Refractive indices [75Ber].

| | $\lambda$ [μm] | $BaMgF_4$ | $BaZnF_4$ |
|---|---|---|---|
| $n_a$ | 1.06 | 1.458 | 1.507 |
| $n_b$ | 1.06 | 1.439 | 1.490 |
| $n_c$ | 1.06 | 1.467 | 1.514 |
| $n_a$ | 0.53 | 1.467 | 1.517 |
| $n_b$ | 0.53 | 1.450 | 1.499 |
| $n_c$ | 0.53 | 1.473 | 1.524 |

**Table 26A-1-004**. $BaMgF_4$, $BaZnF_4$. Nonlinear optical susceptibilities [75Ber]. $\lambda = 1.06$ μm.

| | $BaMgF_4$ | $BaZnF_4$ |
|---|---|---|
| $d_{11} / d_{11}^{\text{quartz}}$ | 0.05 | 0.11 |
| $d_{31} / d_{11}^{\text{quartz}}$ | 0.07 | 0.025 |
| $d_{15} / d_{11}^{\text{quartz}}$ | 0.07 | 0.033 |
| $d_{12} / d_{11}^{\text{quartz}}$ | 0.13 | 0.25 |
| $d_{26} / d_{11}^{\text{quartz}}$ | 0.07 | – |

**Table 26A-1-005**. $BaMgF_4$. Spin Hamiltonian parameters for $Mn^{2+}$ at RT [80Fuk]. (a) The spin Hamiltonian parameters. (b) The crystal field tensor $\boldsymbol{D}$ and the angle $\theta$ between the direction of $D_x$ and the $a$ axis at various temperatures. $g_N$: $g$ factor of nuclei.

(a)

| | | | | | |
|---|---|---|---|---|---|
| $g$ | 2.00(2) | | | | |
| $g_N$ | 1.38(1) | | | | |
| | | | | | Direction cosines |
| $D_X$ | $-1.75(4) \cdot 10^4$ A m$^{-1}$ | $A_X$ | –270.1(6) MHz | $X$ | (0.823, ± 0.568, 0) |
| $D_Y$ | $3.5(4) \cdot 10^3$ A m$^{-1}$ | $A_Y$ | –268.4(6) MHz | $Y$ | (∓ 0.568, 0.823, 0) |
| $D_Z$ | $1.40(4) \cdot 10^4$ A m$^{-1}$ | $A_Z$ | –271.7(6) MHz | $Z$ | (0, 0, 1) |

(b)

| $T$ [K] | 93 | 183 | 293 | 368 | 403 | 538 |
|---|---|---|---|---|---|---|
| $D_X$ [$\cdot 10^3$ A m$^{-1}$] | –18.3 | –18.0 | –17.5 | –15.5 | –15.4 | –15.0 |
| $D_Y$ [$\cdot 10^3$ A m$^{-1}$] | 5.5 | 4.4 | 3.5 | 2.4 | 2.2 | 1.5 |
| $D_Z$ [$\cdot 10^3$ A m$^{-1}$] | 12.8 | 13.6 | 14.0 | 13.1 | 13.1 | 13.5 |
| $\theta$ [°] | 36.6 | 35.4 | 33.7 | 32.7 | 31.9 | 29.9 |