International Tables for Crystallography (2013). Vol. D, Table 3.4.3.6, pp. 521–526.

Finally, we turn to *twin laws of ferroelastic domain twins with compatible domain walls*. In a ferroelastic twin, say $(\mathbf{R}_1^+|\mathbf{n}|\mathbf{R}_2^-)$, there are just two possible *twinning operations* that interchange two ferroelastic domain states $\mathbf{R}_1^+$ and $\mathbf{R}_2^-$ of the twin: reflection through the plane of the domain wall ($m^\star_{x\bar{y}}$ in our example) and 180° rotation with a rotation axis in the intersection of the domain wall and the plane of shear ($2^\star_{xy}$). These are the only transposing operations of the domain pair $(\mathbf{R}_1, \mathbf{R}_2)$ that are preserved by the shear; all other transposing operations of the domain pair $(\mathbf{R}_1, \mathbf{R}_2)$ are lost. (This is a difference from non-ferroelastic twins, where all transposing operations of the pair become twinning operations of a non-ferroelastic twin.)

Consider the twin $(\mathbf{S}_1^+|\mathbf{n}|\mathbf{S}_3^-)$ in Fig. 3.4.3.8. By *non-trivial twinning operations* we understand transposing operations of the domain pair $(\mathbf{S}_1^+, \mathbf{S}_3^-)$, whereas *trivial twinning operations* leave invariant $\mathbf{S}_1^+$ and $\mathbf{S}_3^-$. As we shall see in the next section, the union of trivial and non-trivial twinning operations forms a group $\mathsf{T}_{1^+2^-}(\mathbf{n})$. This group, called the *symmetry group of the twin* $(\mathbf{S}_1^+|\mathbf{n}|\mathbf{S}_3^-)$, comprises all symmetry operations of this twin and we shall use it for designating the *twin law of the ferroelastic twin*, just as the group $J^\star_{1j}$ of the domain pair $(\mathbf{S}_1, \mathbf{S}_j)$ specifies the twin law of a non-ferroelastic twin. This group $\mathsf{T}_{1^+2^-}(\mathbf{n})$ is a layer group (see Section 3.4.4.2) that keeps the plane p invariant, but for characterizing the twin law, which specifies the relation of domain states of two domains in the twin, one can treat $\mathsf{T}_{1^+2^-}(\mathbf{n})$ as an ordinary (dichromatic) point group $T_{1^+2^-}(\mathbf{n})$. Thus the twin law of the domain twin $(\mathbf{S}_1^+|\mathbf{n}|\mathbf{S}_3^-)$ is designated by the group

$$T_{1^+3^-}(\mathbf{n}) = 2^\star_{xy} m^\star_{x\bar{y}} m_z = T_{3^-1^+}(\mathbf{n}), \qquad (3.4.3.70)$$

where (3.4.3.70) expresses the fact that a twin and the reversed twin have the same symmetry, see equation (3.4.3.66). We see that this group coincides with the symmetry group $J_{1^+2^-}$ of the single-domain pair $(\mathbf{S}_1, \mathbf{S}_3)$ (see Fig. 3.4.3.1*b*).

The twin law of two twins $(\mathbf{S}_1^-|\mathbf{n}'|\mathbf{S}_3^+)$ and $(\mathbf{S}_3^+|\mathbf{n}'|\mathbf{S}_1^-)$ with the same equally deformed plane p' is expressed by the group

$$T_{1^-3^+}(\mathbf{n}') = m_z = T_{3^-1^+}(\mathbf{n}'), \qquad (3.4.3.71)$$

which is different from the $T_{1^+3^-}(\mathbf{n})$ of the twin $(\mathbf{S}_1^+|\mathbf{n}|\mathbf{S}_3^-)$.

Representative domain pairs of all orbits of ferroelastic domain pairs (Litvin & Janovec, 1999) are listed in two tables. Table 3.4.3.6 contains representative domain pairs for which compatible domain walls exist and Table 3.4.3.7 lists ferroelastic domain pairs where compatible coexistence of domain states is not possible. Table 3.4.3.6 contains, beside other data, for each ferroelastic domain pair the orientation of two equally deformed planes and the corresponding symmetries of the corresponding four twins which express two twin laws.

3.4.3.6.4. *Ferroelastic domain pairs with compatible domain walls, synoptic table*

As we have seen, for each ferroelastic domain pair for which condition (3.4.3.54) for the existence of coherent domain walls is fulfilled, there exist two perpendicular equally deformed planes. On each of these planes two ferroelastic twins can be formed; these two twins are in a simple relation (one is a reversed twin of the other), have the same symmetry, and can therefore be represented by one of these twins. Then we can say that from one ferroelastic domain pair two different twins can be formed. Each of these twins represents a different 'twin law' that has arisen from the initial domain pair. All four ferroelastic twins can be described in terms of mechanical twinning with the same value of the shear angle ω.

Table 3.4.3.6. *Ferroelastic domain pairs and twins with compatible domain walls*

F_1: symmetry of domain state $\mathbf{S}_1$; g_{1j}: switching operation, $g_{1j}\mathbf{S}_1 = \mathbf{S}_j$; $K(F_1, g_{1j})$: twinning group, group extension of F_1 by g_{1j}; Axis **h**: intersection of compatible walls; Equation: component B expressed as a function of strain components or lattice parameters (see end of table); Wall normals: coordinates of normals $\mathbf{n}_1$ and $\mathbf{n}_2$ of two perpendicular compatible walls, subscript e: wall is charged (see Explanation); ω: obliquity, for numbers (n) see end of table; $\bar{\mathsf{J}}_{1j}$: extended layer-group symmetry of the twin and the wall; $\underline{t}^\star_{1j}$: non-trivial twinning operation of the twin; T_{1j}: layer-group symmetry of the twin and the wall, twin law of the ferroelastic twin; Classification: classification of the twin and the wall (see Table 3.4.4.3).

F_1	g_{1j}	$K(F_1, g_{1j})$	Axis **h**	Equation	Wall normals **n**	ω	$\bar{\mathsf{J}}_{1j}$	$\underline{t}^\star_{1j}$	T_{1j}	Classification
1	$2^\star_z$	$2^\star_z$	$[B\bar{1}0]$	(*a*)	$[001]$ $[1B0]_e$	(1)	$2^\star_z$ $\underline{2}^\star_z$	 $\underline{2}^\star_z$	1 $\underline{2}^\star_z$	AR★ SI
1	$m^\star_z$	$m^\star_z$	$[B\bar{1}0]$	(*a*)	$[001]_e$ $[1B0]$	(1)	$\underline{m}^\star_z$ $m^\star_z$	$\underline{m}^\star_z$	$\underline{m}^\star_z$ 1	SI AR★
$\bar{1}$	$m^\star_z, 2^\star_z$	$2^\star_z/m^\star_z$	$[B\bar{1}0]$	(*a*)	$[001]$ $[1B0]$	(1)	$2^\star_z/\underline{m}^\star_z$ $\underline{2}^\star_z/m^\star_z$	$\underline{m}^\star_z$ $\underline{2}^\star_z$	$\underline{m}^\star_z$ $\underline{2}^\star_z$	SR SR
2_z	$2^\star_x, 2^\star_y$	$2^\star_x 2^\star_y 2_z$	$[001]$		$[100]$ $[010]$	(2)	$2^\star_x \underline{2}^\star_y \underline{2}_z$ $\underline{2}^\star_x 2^\star_y \underline{2}_z$	$\underline{2}^\star_y$ $\underline{2}^\star_x$	$\underline{2}^\star_y$ $\underline{2}^\star_x$	SR SR
2_z	$m^\star_x, m^\star_y$	$m^\star_x m^\star_y 2_z$	$[001]$		$[100]$ $[010]$	(2)	$\underline{m}^\star_x m^\star_y \underline{2}_z$ $m^\star_x \underline{m}^\star_y \underline{2}_z$	$\underline{m}^\star_x$ $\underline{m}^\star_y$	$\underline{m}^\star_x$ $\underline{m}^\star_y$	SR SR
2_z	$4^\star_z, 4^{3\star}_z$	$4^\star_z$	$[001]$	(*b*)	[$[1B0]$ [$[B\bar{1}0]$	(3)	$\underline{2}_z$ $\underline{2}_z$		1 1	A$\underline{\text{R}}$ A$\underline{\underline{\text{R}}}$
2_z	$\bar{4}^\star_z, \bar{4}^{*3}_z$	$\bar{4}^\star_z$	$[001]$	(*b*)	[$[1B0]$ [$[B\bar{1}0]$	(3)	$\underline{2}_z$ $\underline{2}_z$		1 1	A$\underline{\text{R}}$ A$\underline{\underline{\text{R}}}$
2_z	$3_z, 6^5_z$	6_z	$[001]$	(*c*)	$[1B0]$ $[B\bar{1}0]$	(4)	$\underline{2}_z$ $\underline{2}_z$		1 1	A$\underline{\text{R}}$ A$\underline{\underline{\text{R}}}$
	$3^2_z, 6_z$	6_z	$[001]$	(*c*)	$[1B0]$ $[B\bar{1}0]$	(4)	$\underline{2}_z$ $\underline{2}_z$		1 1	A$\underline{\text{R}}$ A$\underline{\underline{\text{R}}}$
2_z	$\bar{3}^5_z, \bar{6}_z$	$6_z/m_z$	$[001]$	(*c*)	$[1B0]$ $[B\bar{1}0]$	(4)	$\underline{2}_z$ $\underline{2}_z$		1 1	A$\underline{\text{R}}$ A$\underline{\underline{\text{R}}}$
	$\bar{3}_z, \bar{6}^5_z$	$6_z/m_z$	$[001]$	(*c*)	$[1B0]$ $[B\bar{1}0]$	(4)	$\underline{2}_z$ $\underline{2}_z$		1 1	A$\underline{\text{R}}$ A$\underline{\underline{\text{R}}}$
2_x	$2^\star_{xy}, 4_z$	$4_z 2_x 2_{xy}$	$[\bar{B}B2]$	(*d*)	$[110]$ $[1\bar{1}B]_e$	(5)	$2^\star_{xy}$ $\underline{2}^\star_{xy}$	 $\underline{2}^\star_{xy}$	1 $\underline{2}^\star_{xy}$	AR★ SI
2_x	$m^\star_{xy}, \bar{4}_z$	$\bar{4}_z 2_x m_{xy}$	$[\bar{B}B2]$	(*d*)	$[110]_e$ $[1\bar{1}B]$	(5)	$\underline{m}^\star_{xy}$ $m^\star_{xy}$	$\underline{m}^\star_{xy}$	$\underline{m}^\star_{xy}$ 1	SI AR★
2_x	$2^\star_{x'}, 3^2_z$	$3_z 2_x$	$[\sqrt{3}B, B, \bar{4}]$	(*e*)	$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}1B]_e$	(6)	$2^\star_{x'}$ $\underline{2}^\star_{x'}$	 $\underline{2}^\star_{x'}$	1 $\underline{2}^\star_{x'}$	AR★ SI

Table 3.4.3.6 (*cont.*)

F_1	g_{1j}	$K(F_1, g_{1j})$	Axis **h**	Equation	Wall normals **n**	ω	$\bar{\mathsf{J}}_{1j}$	$\underline{t}^\star_{1j}$	T_{1j}	Classification
2_x	$m^\star_{x'}, \bar{3}^5_z$	$\bar{3}_z m_x$	$[\sqrt{3}B, B, \bar{4}]$	(*e*)	$[\bar{1}\sqrt{3}0]_e$ $[\sqrt{3}1B]$	(6)	$\underline{m}^\star_{x'}$ $m^\star_{x'}$	$\underline{m}^\star_{x'}$	$\underline{m}^\star_{x'}$ 1	SI AR*
2_x	$2^\star_{y'}, 6_z$	$6_z 2_x 2_y$	$[\bar{B}, \sqrt{3}B, \bar{4}]$	(*f*)	$[\sqrt{3}10]$ $[\bar{1}\sqrt{3}B]_e$	(7)	$2^\star_{y'}$ $\underline{2}^\star_{y'}$	$\underline{2}^\star_{y'}$	1 $\underline{2}^\star_{y'}$	AR* SI
2_x	$m^\star_{y'}, \bar{6}_z$	$\bar{6}_z 2_x m_y$	$[\bar{B}, \sqrt{3}B, \bar{4}]$	(*f*)	$[\sqrt{3}10]_e$ $[\bar{1}\sqrt{3}B]$	(7)	$\underline{m}^\star_{y'}$ $m^\star_{y'}$	$\underline{m}^\star_{y'}$	$\underline{m}^\star_{y'}$ 1	SI AR*
2_{xy}	$m^\star_x, \bar{4}^3_z$	$\bar{4}_z m_x 2_{xy}$	$[0B\bar{1}]$	(*g*)	$[100]_e$ $[01B]$	(8)	$\underline{m}^\star_x$ $m^\star_x$	$\underline{m}^\star_x$	$\underline{m}^\star_x$ 1	SI AR*
m_z	$m^\star_x, 2^\star_y$	$m^\star_x 2^\star_y m_z$	[001]		$[100]_e$ $[010]$	(2)	$\underline{m}^\star_x \underline{2}^\star_y m_z$ $m^\star_x 2^\star_y m_z$	$\underline{m}^\star_x$	$\underline{m}^\star_x \underline{2}^\star_y m_z$ m_z	SI AR*
m_z	$4_z, \bar{4}^3_z$	$4_z/m_z$	[001]	(*b*)	$[1B0]_{e0}$ $[B\bar{1}0]_{0e}$	(3)	m_z m_z		m_z m_z	AI AI
	$4^3_z, \bar{4}_z$	$4_z/m_z$	[001]	(*b*)	$[1B0]_{e0}$ $[B\bar{1}0]_{0e}$	(3)	m_z m_z		m_z m_z	AI AI
m_z	$3_z, \bar{6}^5_z$	$\bar{6}_z$	[001]	(*c*)	$[1B0]_{e0}$ $[B\bar{1}0]_{0e}$	(4)	m_z m_z		m_z m_z	AI AI
	$3^2_z, \bar{6}_z$	$\bar{6}_z$	[001]	(*c*)	$[1B0]_{e0}$ $[B\bar{1}0]_{0e}$	(4)	m_z m_z		m_z m_z	AI AI
m_z	$\bar{3}_z, 6^5_z$	$6_z/m_z$	[001]	(*c*)	$[1B0]_{e0}$ $[B\bar{1}0]_{0e}$	(4)	m_z m_z		m_z m_z	AI AI
	$\bar{3}^5_z, 6_z$	$6_z/m_z$	[001]	(*c*)	$[1B0]_{e0}$ $[B\bar{1}0]_{0e}$	(4)	m_z m_z		m_z m_z	AI AI
m_x	$m^\star_{xy}, 4_z$	$4_z m_x m_{xy}$	$[\bar{B}B2]$	(*d*)	$[110]_e$ $[1\bar{1}B]$	(5)	$\underline{m}^\star_{xy}$ $m^\star_{xy}$	$\underline{m}^\star_{xy}$	$\underline{m}^\star_{xy}$ 1	SI AR*
m_x	$2^\star_{xy}, \bar{4}_z$	$\bar{4}_z m_x 2_{xy}$	$[\bar{B}B2]$	(*d*)	$[110]$ $[1\bar{1}B]_e$	(5)	$2^\star_{xy}$ $\underline{2}^\star_{xy}$	$\underline{2}^\star_{xy}$	1 $\underline{2}^\star_{xy}$	AR* SI
m_x	$m^\star_{x'}, 3^2_z$	$3_z m_x$	$[\sqrt{3}B, B, \bar{4}]$	(*e*)	$[\bar{1}\sqrt{3}0]_e$ $[\sqrt{3}1B]$	(6)	$\underline{m}^\star_{x'}$ $m^\star_{x'}$	$\underline{m}^\star_{x'}$	$\underline{m}^\star_{x'}$ 1	SI AR*
m_x	$2^\star_{x'}, \bar{3}^5_z$	$\bar{3}_z m_x$	$[\sqrt{3}B, B, \bar{4}]$	(*e*)	$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}1B]_e$	(6)	$2^\star_{x'}$ $\underline{2}^\star_{x'}$	$\underline{2}^\star_{x'}$	1 $\underline{2}^\star_{x'}$	AR* SI
m_x	$m^\star_{y'}, 6_z$	$6_z m_x m_y$	$[\bar{B}, \sqrt{3}B, \bar{4}]$	(*f*)	$[\sqrt{3}10]_e$ $[\bar{1}\sqrt{3}B]$	(6)	$\underline{m}^\star_{y'}$ $m^\star_{y'}$	$\underline{m}^\star_{y'}$	$\underline{m}^\star_{y'}$ 1	SI AR*
m_x	$2^\star_{y'}, \bar{6}_z$	$\bar{6}_z m_x 2_y$	$[\bar{B}, \sqrt{3}B, \bar{4}]$	(*f*)	$[\sqrt{3}10]$ $[\bar{1}\sqrt{3}B]_e$	(6)	$2^\star_{y'}$ $\underline{2}^\star_{y'}$	$\underline{2}^\star_{y'}$	1 $\underline{2}^\star_{y'}$	AR* SI
m_{xy}	$2^\star_x, \bar{4}^3_z$	$\bar{4}_z 2_x m_{xy}$	$[0B\bar{1}]$	(*h*)	$[100]$ $[01B]_e$	(9)	$2^\star_x$ $\underline{2}^\star_x$	$\underline{2}^\star_x$	1 $\underline{2}^\star_x$	AR* SI
$2_z/m_z$	$m^\star_x, m^\star_y$	$m^\star_x m^\star_y m_z$	[001]		$[100]$ $[010]$	(2)	$\underline{m}^\star_x m^\star_y m_z$ $m^\star_x \underline{m}^\star_y m_z$	$\underline{m}^\star_x$ $\underline{m}^\star_y$	$\underline{m}^\star_x \underline{2}^\star_y m_z$ $\underline{2}^\star_x \underline{m}^\star_y m_z$	SR SR
$2_z/m_z$	$4^\star_z, 4^{3\star}_z$	$4^\star_z/m_z$	[001]	(*b*)	$[1B0]$ $[B\bar{1}0]$	(3)	$\underline{2}_z/m_z$ $\underline{2}_z/m_z$		m_z m_z	A$\underline{\mathrm{R}}$ A$\underline{\mathrm{R}}$
$2_z/m_z$	$3_z, 6^5_z$	$6_z/m_z$	[001]	(*c*)	$[1B0]$ $[B\bar{1}0]$	(4)	$\underline{2}_z/m_z$ $\underline{2}_z/m_z$		m_z m_z	A$\underline{\mathrm{R}}$ A$\underline{\mathrm{R}}$
	$3^2_z, 6_z$	$6_z/m_z$	[001]	(*c*)	$[1B0]$ $[B\bar{1}0]$	(4)	$\underline{2}_z/m_z$ $\underline{2}_z/m_z$		m_z m_z	A$\underline{\mathrm{R}}$ A$\underline{\mathrm{R}}$
$2_x/m_x$	$m^\star_{xy}, 4_z$	$4_z/m_z m_x m_{xy}$	$[\bar{B}B2]$	(*d*)	$[110]$ $[1\bar{1}B]$	(5)	$2^\star_{xy}/\underline{m}^\star_{xy}$ $\underline{2}^\star_{xy}/m^\star_{xy}$	$\underline{m}^\star_{xy}$ $\underline{2}^\star_{xy}$	$\underline{m}^\star_{xy}$ $\underline{2}^\star_{xy}$	SR SR
$2_x/m_x$	$m^\star_{x'}, 3^2_z$	$\bar{3}_z m_x$	$[\sqrt{3}B, B, \bar{4}]$	(*e*)	$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}1B]$	(6)	$2^\star_{x'}/\underline{m}^\star_{x'}$ $\underline{2}^\star_{x'}/m^\star_{x'}$	$\underline{m}^\star_{x'}$ $\underline{2}^\star_{x'}$	$\underline{m}^\star_{x'}$ $\underline{2}^\star_{x'}$	SR SR
$2_x/m_x$	$m^\star_{y'}, 6_z$	$6_z/m_z m_x m_y$	$[\bar{B}, \sqrt{3}B, \bar{4}]$	(*f*)	$[\sqrt{3}10]$ $[\bar{1}\sqrt{3}B]$	(6)	$2^\star_{y'}/\underline{m}^\star_{y'}$ $\underline{2}^\star_{y'}/m^\star_{y'}$	$\underline{m}^\star_{y'}$ $\underline{2}^\star_{y'}$	$\underline{m}^\star_{y'}$ $\underline{2}^\star_{y'}$	SR SR
$2_x 2_y 2_z$	$2^\star_{x\bar{y}}, 2^\star_{xy}$	$4^\star_z 2_x 2^\star_{xy}$	[001]		$[110]$ $[1\bar{1}0]$	(11)	$2^\star_{xy}\underline{2}^\star_{x\bar{y}}\underline{2}_z$ $\underline{2}^\star_{xy}2^\star_{x\bar{y}}\underline{2}_z$	$\underline{2}^\star_{x\bar{y}}$ $\underline{2}^\star_{xy}$	$\underline{2}^\star_{x\bar{y}}$ $\underline{2}^\star_{xy}$	SR SR
$2_x 2_y 2_z$	$m^\star_{x\bar{y}}, m^\star_{xy}$	$\bar{4}^\star_z 2_x m^\star_{xy}$	[001]		$[110]$ $[1\bar{1}0]$	(11)	$\underline{m}^\star_{xy} m^\star_{x\bar{y}} \underline{2}_z$ $m^\star_{xy} \underline{m}^\star_{x\bar{y}} \underline{2}_z$	$\underline{m}^\star_{xy}$ $\underline{m}^\star_{x\bar{y}}$	$\underline{m}^\star_{xy}$ $\underline{m}^\star_{x\bar{y}}$	SR SR
$2_x 2_y 2_z$	$2^\star_{x'}, 2^\star_{y'}$	$6_z 2_x 2_y$	[001]		$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}10]$	(10)	$2^\star_{x'}\underline{2}^\star_{y'}\underline{2}_z$ $\underline{2}^\star_{x'}2^\star_{y'}\underline{2}_z$	$\underline{2}^\star_{y'}$ $\underline{2}^\star_{x'}$	$\underline{2}^\star_{y'}$ $\underline{2}^\star_{x'}$	SR SR
$2_x 2_y 2_z$	$m^\star_{x'}, m^\star_{y'}$	$6_z/m_z m_x m_y$	[001]		$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}10]$	(10)	$\underline{m}^\star_{x'} m^\star_{y'} \underline{2}_z$ $m^\star_{x'} \underline{m}^\star_{y'} \underline{2}_z$	$\underline{m}^\star_{x'}$ $\underline{m}^\star_{y'}$	$\underline{m}^\star_{x'}$ $\underline{m}^\star_{y'}$	SR SR
$2_{x\bar{y}} 2_{xy} 2_z$	$m^\star_x, m^\star_y$	$\bar{4}^\star_z m_x 2^\star_{xy}$	[001]		$[100]$ $[010]$	(13)	$\underline{m}^\star_x m^\star_y \underline{2}_z$ $m^\star_x \underline{m}^\star_y \underline{2}_z$	$\underline{m}^\star_x$ $\underline{m}^\star_y$	$\underline{m}^\star_x$ $\underline{m}^\star_y$	SR SR
$2_{x\bar{y}} 2_{xy} 2_z$	$2^\star_{xz}, 4_y$	$4_z 3_p 2_{xy}$	$[B2\bar{B}]$	(*k*)	$[101]$ $[\bar{1}B1]$	(12)	$2^\star_{xz}$ $\underline{2}^\star_{xz}$	$\underline{2}^\star_{xz}$	1 $\underline{2}^\star_{xz}$	AR* SI
$2_{x\bar{y}} 2_{xy} 2_z$	$m^\star_{xz}, \bar{4}_y$	$m_z \bar{3}_p m_{xy}$	$[B2\bar{B}]$	(*k*)	$[101]$ $[\bar{1}B1]$	(12)	$\underline{m}^\star_{xz}$ $m^\star_{xz}$	$\underline{m}^\star_{xz}$	$\underline{m}^\star_{xz}$ 1	SI AR*

Table 3.4.3.6 (*cont.*)

F_1	g_{1j}	$K(F_1, g_{1j})$	Axis **h**	Equation	Wall normals **n**	ω	$\bar{\mathsf{J}}_{1j}$	$\underline{t}^\star_{1j}$	T_{1j}	Classification
$m_xm_y2_z$	$m^\star_{x\bar y}, m^\star_{xy}$	$4^\star_zm_xm^\star_{xy}$	[001]		⎡ $[1\underline{1}0]$ ⎣ $[1\bar{1}0]$	(11)	$m^\star_{x\bar y}\underline{m}^\star_{xy}\underline{2}_z$ $\underline{m}^\star_{x\bar y}m^\star_{xy}\underline{2}_z$	$\underline{m}^\star_{xy}$ $\underline{m}^\star_{x\bar y}$	$\underline{m}^\star_{xy}$ $\underline{m}^\star_{x\bar y}$	SR SR
$m_xm_y2_z$	$2^\star_{x\bar y}, 2^\star_{xy}$	$\bar{4}^\star_zm_x2^\star_{xy}$	[001]		⎡ $[1\underline{1}0]$ ⎣ $[1\bar{1}0]$	(11)	$2^\star_{xy}\underline{2}^\star_{x\bar y}\underline{2}_z$ $\underline{2}^\star_{xy}2^\star_{x\bar y}\underline{2}_z$	$\underline{2}^\star_{x\bar y}$ $\underline{2}^\star_{xy}$	$\underline{2}^\star_{x\bar y}$ $\underline{2}^\star_{xy}$	SR SR
$m_xm_y2_z$	$m^\star_{x'}, m^\star_{y'}$	$6_zm_xm_y$	[001]		$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}10]$	(10)	$\underline{m}^\star_{x'}m^\star_{y'}\underline{2}_z$ $m^\star_{x'}\underline{m}^\star_{y'}\underline{2}_z$	$\underline{m}^\star_{x'}$ $\underline{m}^\star_{y'}$	$\underline{m}^\star_{x'}$ $\underline{m}^\star_{y'}$	SR SR
$m_xm_y2_z$	$2^\star_{x'}, 2^\star_{y'}$	$6_z/m_zm_xm_y$	[001]		$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}10]$	(10)	$2^\star_{x'}\underline{2}^\star_{y'}\underline{2}_z$ $\underline{2}^\star_{x'}2^\star_{y'}\underline{2}_z$	$\underline{2}^\star_{y'}$ $\underline{2}^\star_{x'}$	$\underline{2}^\star_{y'}$ $\underline{2}^\star_{x'}$	SR SR
$m_x2_ym_z$	$m^\star_{x'}, 2^\star_{y'}$	$\bar{6}_zm_x2_y$	[001]		$[\bar{1}\sqrt{3}0]_e$ $[\sqrt{3}10]$	(10)	$\underline{m}^\star_{x'}\underline{2}^\star_{y'}m_z$ $m^\star_{x'}2^\star_{y'}m_z$	$\underline{m}^\star_{x'}$	$\underline{m}^\star_{x'}\underline{2}^\star_{y'}m_z$ m_z	SI AR⋆
$2_xm_ym_z$	$m^\star_{x\bar y}, 2^\star_{xy}$	$4_z/m_zm_xm_{xy}$	[001]		$[1\underline{1}0]$ $[1\bar{1}0]_e$	(11)	$2^\star_{xy}m^\star_{x\bar y}m_z$ $\underline{2}^\star_{xy}\underline{m}^\star_{x\bar y}m_z$	 $\underline{m}^\star_{x\bar y}$	m_z $\underline{2}^\star_{xy}\underline{m}^\star_{x\bar y}m_z$	AR⋆ SI
$2_xm_ym_z$	$m^\star_{y'}, 2^\star_{x'}$	$\bar{6}_z2_xm_y$	[001]		$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}10]_e$	(10)	$2^\star_{x'}m^\star_{y'}m_z$ $\underline{2}^\star_{x'}\underline{m}^\star_{y'}m_z$	 $\underline{m}_{y'}$	m_z $\underline{2}^\star_{x'}\underline{m}^\star_{y'}m_z$	AR⋆ SI
$2_xm_ym_z$	$m^\star_{x'}, 2^\star_{y'}$	$6_z/m_zm_xm_y$	[001]		$[\bar{1}\sqrt{3}0]_e$ $[\sqrt{3}10]$	(10)	$\underline{m}^\star_{x'}\underline{2}^\star_{y'}m_z$ $m^\star_{x'}2^\star_{y'}m_z$	$\underline{m}^\star_{x'}$	$\underline{m}^\star_{x'}\underline{2}^\star_{y'}m_z$ m_z	SI AR⋆
$m_{x\bar y}m_{xy}2_z$	$2^\star_x, 2^\star_y$	$\bar{4}^\star_z2^\star_xm_{xy}$	[001]		⎡ [100] ⎣ [010]	(13)	$2^\star_x\underline{2}^\star_y\underline{2}_z$ $\underline{2}^\star_x2^\star_y\underline{2}_z$	$\underline{2}^\star_y$ $\underline{2}^\star_x$	$\underline{2}^\star_y$ $\underline{2}^\star_x$	SR SR
$m_{x\bar y}m_{xy}2_z$	$m^\star_{xz}, \bar{4}_y$	$\bar{4}_z3_pm_{xy}$	$[B2\bar{B}]$	(*k*)	$[\underline{1}01]_e$ $[\bar{1}B1]$	(12)	$\underline{m}^\star_{xz}$ $m^\star_{xz}$	$\underline{m}^\star_{xz}$	$\underline{m}^\star_{xz}$ 1	SI AR⋆
$m_{x\bar y}m_{xy}2_z$	$2^\star_{xz}, 4_y$	$m_z\bar{3}_pm_{xy}$	$[B2\bar{B}]$	(*k*)	$[\underline{1}01]$ $[\bar{1}B1]_e$	(12)	$2^\star_{xz}$ $\underline{2}^\star_{xz}$	 $\underline{2}^\star_{xz}$	1 $\underline{2}^\star_{xz}$	AR⋆ SI
$m_{x\bar y}2_{xy}m_z$	$m^\star_{xz}, 4_y$	$m_z\bar{3}_pm_{xy}(m^\star_{xz})$	$[B2\bar{B}]$	(*k*)	$[\underline{1}01]_e$ $[\bar{1}B1]$	(12)	$\underline{m}^\star_{xz}$ $m^\star_{xz}$	$\underline{m}^\star_{xz}$	$\underline{m}^\star_{xz}$ 1	SI AR⋆
$m_{x\bar y}2_{xy}m_z$	$2^\star_{xz}, \bar{4}_y$	$m_z\bar{3}_pm_{xy}(2^\star_{xz})$	$[B2\bar{B}]$	(*k*)	$[\underline{1}01]$ $[\bar{1}B1]_e$	(12)	$2^\star_{xz}$ $\underline{2}^\star_{xz}$	 $\underline{2}^\star_{xz}$	1 $\underline{2}^\star_{xz}$	AR⋆ SI
$m_xm_ym_z$	$m^\star_{xy}, m^\star_{x\bar y}$	$4^\star_z/m_zm_xm^\star_{xy}$	[001]		⎡ $[1\underline{1}0]$ ⎣ $[1\bar{1}0]$	(10)	$m^\star_{x\bar y}\underline{m}^\star_{xy}m_z$ $\underline{m}^\star_{x\bar y}m^\star_{xy}m_z$	$\underline{m}^\star_{xy}$ $\underline{m}^\star_{x\bar y}$	$\underline{2}^\star_{x\bar y}\underline{m}^\star_{xy}m_z$ $\underline{m}^\star_{x\bar y}\underline{2}^\star_{xy}m_z$	SR SR
$m_xm_ym_z$	$m^\star_{x'}, m^\star_{y'}$	$6_z/m_zm_xm_y$	[001]		$[\bar{1}\sqrt{3}0]$ $[\sqrt{3}10]$	(10)	$\underline{m}^\star_{x'}m^\star_{y'}m_z$ $m^\star_{x'}\underline{m}^\star_{y'}m_z$	$\underline{m}^\star_{x'}$ $\underline{m}^\star_{y'}$	$\underline{m}^\star_{x'}\underline{2}^\star_{y'}m_z$ $\underline{2}^\star_{x'}\underline{m}^\star_{y'}m_z$	SR SR
$m_{xy}m_{\bar xy}m_z$	$m^\star_{xz}, 4_y$	$m_z\bar{3}_pm_{xy}$	$[B2\bar{B}]$	(*k*)	$[\underline{1}01]$ $[\bar{1}B1]$	(12)	$2^\star_{xz}/\underline{m}^\star_{xz}$ $\underline{2}^\star_{xz}/m^\star_{xz}$	$\underline{m}^\star_{xz}$ $\underline{2}^\star_{xz}$	$\underline{m}^\star_{xz}$ $\underline{2}^\star_{xz}$	SR SR
4_z	$2^\star_{xz}, 4_y$	$4_z3_p2_{xy}$	[010]		$[\underline{1}01]$ $[\bar{1}01]_e$	(14)	$2^\star_{xz}$ $\underline{2}^\star_{xz}$	 $\underline{2}^\star_{xz}$	1 $\underline{2}^\star_{xz}$	AR⋆ SI
4_z	$m^\star_{xz}, \bar{4}_y$	$m_z\bar{3}_pm_{xy}$	[010]		$[\underline{1}01]_e$ $[\bar{1}01]$	(14)	$\underline{m}^\star_{xz}$ $m^\star_{xz}$	$\underline{m}^\star_{xz}$	$\underline{m}^\star_{xz}$ 1	SI AR⋆
$\bar{4}_z$	$m^\star_{xz}, \bar{4}_y$	$\bar{4}_z3_pm_{xy}$	[010]		$[\underline{1}01]$ $[\bar{1}01]$	(14)	$\underline{m}^\star_{xz}$ $m^\star_{xz}$	$\underline{m}^\star_{xz}$	$\underline{m}^\star_{xz}$ 1	SI AR⋆
$\bar{4}_z$	$2^\star_{xz}, 4_y$	$m_z\bar{3}_pm_{xy}$	[010]		$[\underline{1}01]$ $[\bar{1}01]_e$	(14)	$2^\star_{xz}$ $\underline{2}^\star_{xz}$	 $\underline{2}^\star_{xz}$	1 $\underline{2}^\star_{xz}$	AR⋆ SI
$4_z/m_z$	$m^\star_{xz}, 4_y$	$m_z\bar{3}_pm_{xy}$	[010]		$[\underline{1}01]$ $[\bar{1}01]$	(14)	$2^\star_{xz}/\underline{m}^\star_{xz}$ $\underline{2}^\star_{xz}/m^\star_{xz}$	$\underline{m}^\star_{xz}$ $\underline{2}^\star_{xz}$	$\underline{m}^\star_{xz}$ $\underline{2}^\star_{xz}$	SR SR
$4_z2_x2_{xy}$	$2^\star_{xz}, 2^\star_{x\bar z}$	$4_z3_p2_{xy}$	[010]		⎡ $[\underline{1}01]$ ⎣ $[\bar{1}01]$	(14)	$2^\star_{xz}\underline{2}^\star_{x\bar z}\underline{2}_y$ $\underline{2}^\star_{xz}2^\star_{x\bar z}\underline{2}_y$	$\underline{2}^\star_{\bar xz}$ $\underline{2}^\star_{xz}$	$\underline{2}^\star_{\bar xz}$ $\underline{2}^\star_{xz}$	SR SR
$4_z2_x2_{xy}$	$m^\star_{xz}, m^\star_{x\bar z}$	$m_z\bar{3}_pm_{xy}$	[010]		⎡ $[\underline{1}01]$ ⎣ $[\bar{1}01]$	(14)	$\underline{m}^\star_{xz}m^\star_{x\bar z}\underline{2}_y$ $m^\star_{xz}\underline{m}^\star_{x\bar z}\underline{2}_y$	$\underline{m}^\star_{xz}$ $\underline{m}^\star_{x\bar z}$	$\underline{m}^\star_{xz}$ $\underline{m}^\star_{x\bar z}$	SR SR
$4_zm_xm_{xy}$	$m^\star_{x\bar z}, 2^\star_{xz}$	$m_z\bar{3}_pm_{xy}$	[010]		$[\underline{1}01]$ $[\bar{1}01]_e$	(14)	$2^\star_{xz}m^\star_{x\bar z}m_y$ $\underline{2}^\star_{xz}\underline{m}^\star_{x\bar z}m_y$	 $\underline{2}^\star_{xz}$	m_y $\underline{2}^\star_{xz}\underline{m}^\star_{x\bar z}m_y$	AR⋆ SI
$\bar{4}_z2_xm_{xy}$	$m^\star_{xz}, m^\star_{x\bar z}$	$\bar{4}_z3_pm_{xy}$	[010]		⎡ $[\underline{1}01]$ ⎣ $[\bar{1}01]$	(14)	$\underline{m}^\star_{xz}m^\star_{x\bar z}\underline{2}_y$ $m^\star_{xz}\underline{m}^\star_{x\bar z}\underline{2}_y$	$\underline{m}^\star_{xz}$ $\underline{m}^\star_{x\bar z}$	$\underline{m}^\star_{xz}$ $\underline{m}^\star_{x\bar z}$	SR SR
$\bar{4}_zm_x2_{xy}$	$m^\star_{x\bar z}, 2^\star_{xz}$	$m_z\bar{3}_pm_{xy}$	[010]		$[\underline{1}01]$ $[\bar{1}01]$	(14)	$2^\star_{xz}m^\star_{x\bar z}m_y$ $\underline{2}^\star_{xz}\underline{m}^\star_{x\bar z}m_y$	 $\underline{m}^\star_{x\bar z}$	m_y $\underline{2}^\star_{xz}\underline{m}^\star_{x\bar z}m_y$	AR⋆ SR
$\bar{4}_z2_xm_{xy}$	$2^\star_{xz}, 2^\star_{x\bar z}$	$m_z\bar{3}_pm_{xy}$	[010]		$[\underline{1}01]$ $[\bar{1}01]$	(14)	$2^\star_{xz}\underline{2}^\star_{x\bar z}2_y$ $\underline{2}^\star_{xz}\underline{2}^\star_{x\bar z}2_y$	$\underline{2}^\star_{x\bar z}$ $\underline{2}^\star_{x\bar z}$	$\underline{2}^\star_{x\bar z}$ $\underline{2}^\star_{xz}\underline{2}^\star_{x\bar z}2_y$	SR SI
$4_z/m_zm_xm_{xy}$	$m^\star_{xz}, m^\star_{\bar xz}$	$m_z\bar{3}_pm_{xy}$	[010]		⎡ $[\underline{1}01]$ ⎣ $[\bar{1}01]$	(14)	$\underline{m}^\star_{xz}m^\star_{\bar xz}m_y$ $m^\star_{xz}\underline{m}^\star_{x\bar z}m_y$	$\underline{m}^\star_{xz}$ $\underline{m}^\star_{x\bar z}$	$\underline{m}^\star_{xz}\underline{2}^\star_{\bar xz}m_y$ $\underline{2}^\star_{xz}\underline{m}^\star_{x\bar z}m_y$	SR SR
3_p	$2^\star_x, 3_r$	2_z3_p	$[01\bar{1}]$		[100] $[011]_e$	(15)	$2^\star_x$ $\underline{2}^\star_x$	 $\underline{2}^\star_x$	1 $\underline{2}^\star_x$	AR⋆ SI
3_p	$m^\star_x, \bar{3}_r$	$m_z\bar{3}_p$	$[01\bar{1}]$		$[100]_e$ [011]	(15)	$\underline{m}^\star_x$ $m^\star_x$	$\underline{m}^\star_x$	$\underline{m}^\star_x$ 1	SI AR⋆
3_p	$2^\star_{xy}, 4_y$	$4_z3_p2_{xy}$	$[1\bar{1}0]$		$[001]_e$ [110]	(15)	$\underline{2}^\star_{xy}$ $2^\star_{xy}$	$\underline{2}^\star_{xy}$	$\underline{2}^\star_{xy}$ 1	SI AR⋆
3_p	$m^\star_{xy}, \bar{4}_y$	$\bar{4}_z3_pm_{xy}$	$[1\bar{1}0]$		[001] $[110]_e$	(15)	$m^\star_{xy}$ $\underline{m}^\star_{xy}$	 $\underline{m}^\star_{xy}$	1 $\underline{m}^\star_{xy}$	AR⋆ SI

Table 3.4.3.6 (*cont.*)

F_1	g_{1j}	$K(F_1, g_{1j})$	Axis **h**	Equation	Wall normals **n**	ω	$\bar{\mathsf{J}}_{1j}$	$\underline{t}^\star_{1j}$	T_{1j}	Classification
$\bar{3}_p$	$m^\star_x, 3_r$	$m_z\bar{3}_p$	$[01\bar{1}]$		[100] [011]	(15)	$2^\star_x/\underline{m}^\star_x$ $\underline{2}^\star_x/m^\star_x$	$\underline{m}^\star_x$ $\underline{2}^\star_x$	$\underline{m}^\star_x$ $\underline{2}^\star_x$	SR SR
$\bar{3}_p$	$m^\star_{xy}, 4_y$	$m_z\bar{3}_p m_{xy}$	$[1\bar{1}0]$		[001] [110]	(15)	$\underline{2}^\star_{xy}/m^\star_{xy}$ $2^\star_{xy}/\underline{m}^\star_{xy}$	$\underline{2}^\star_{xy}$ $\underline{m}^\star_{xy}$	$\underline{2}^\star_{xy}$ $\underline{m}^\star_{xy}$	SR SR
$3_p 2_{x\bar{y}}$	$2^\star_x, 2^\star_{yz}$	$4_z 3_p 2_{xy}$	$[01\bar{1}]$		[100] [011]	(15)	$2^\star_x\underline{2}^\star_{yz}\underline{2}_{y\bar{z}}$ $\underline{2}^\star_x 2^\star_{yz}\underline{2}_{y\bar{z}}$	$\underline{2}^\star_{yz}$ $\underline{2}^\star_x$	$\underline{2}^\star_{yz}$ $\underline{2}^\star_x$	SR SR
$3_p 2_{x\bar{y}}$	$m^\star_x, m^\star_{yz}$	$m_z\bar{3}_p m_{xy}$	$[01\bar{1}]$		[100] [011]	(15)	$\underline{m}^\star_x m^\star_{yz}\underline{2}_{y\bar{z}}$ $m^\star_x\underline{m}^\star_{yz}\underline{2}_{y\bar{z}}$	$\underline{m}^\star_x$ $\underline{m}^\star_{yz}$	$\underline{m}^\star_x$ $\underline{m}^\star_{yz}$	SR SR
$3_p m_{x\bar{y}}$	$2^\star_x, m^\star_{yz}$	$\bar{4}_z 3_p m_{xy}$	$[01\bar{1}]$		[100] $[011]_e$	(15)	$m^\star_{yz}m_{y\bar{z}}2^\star_x$ $\underline{m}^\star_{yz}m_{y\bar{z}}\underline{2}^\star_x$	 $\underline{m}^\star_{yz}$	$m_{y\bar{z}}$ $\underline{m}^\star_{yz}m_{y\bar{z}}\underline{2}^\star_x$	AR⋆ SI
$3_p m_{x\bar{y}}$	$m^\star_x, 2^\star_{yz}$	$m_z\bar{3}_p m_{xy}$	$[01\bar{1}]$		$[100]_e$ [011]	(15)	$\underline{m}^\star_x\underline{2}^\star_{yz}m_{y\bar{z}}$ $m^\star_x 2^\star_{yz}m_{y\bar{z}}$	$\underline{m}^\star_x$	$\underline{m}^\star_x\underline{2}^\star_{yz}m_{y\bar{z}}$ $m_{y\bar{z}}$	SI AR⋆
$\bar{3}_p m_{x\bar{y}}$	$m^\star_x, m^\star_{yz}$	$m_z\bar{3}_p m_{xy}$	$[01\bar{1}]$		[100] [011]	(15)	$\underline{m}^\star_x m^\star_{yz}m_{y\bar{z}}$ $m^\star_x\underline{m}^\star_{yz}m_{y\bar{z}}$	$\underline{m}^\star_x$ $\underline{m}^\star_{yz}$	$\underline{m}^\star_x\underline{2}^\star_{yz}m_{y\bar{z}}$ $\underline{2}^\star_x\underline{m}^\star_{yz}m_{y\bar{z}}$	SR SR

Expressions for obliquity ω as a function of spontaneous strain components and lattice parameters

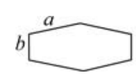
Expression	ω as a function of spontaneous strain components $\begin{pmatrix} q & v & u \\ v & r & t \\ u & t & s \end{pmatrix}$	ω as a function of lattice parameters $a, b, c; \alpha = \angle(b; c), \beta = \angle(a; c), \gamma = \angle(a; b)$  (*)
(1)	$\omega = 2\sqrt{t^2 + u^2}$	$\omega = \left\lvert \arccos \dfrac{\sqrt{1 - \cos^2\alpha - \cos^2\beta - \cos^2\gamma + 2\cos\alpha\cos\beta\cos\gamma}}{\sin\gamma} \right\rvert$
(2)	$\omega = 2\lvert v\rvert$	$\omega = \lvert\pi/2 - \gamma\rvert$
(3)	$\omega = \sqrt{(q - r)^2 + 4v^2}$	$\omega = \left\lvert \arcsin \dfrac{\sqrt{(2ab\cos\gamma)^2 + (b^2 - a^2)}}{b^2 - a^2} \right\rvert$
(4)	$\omega = \dfrac{\sqrt{3}}{2}\sqrt{(q - r)^2 + 4v^2}$	$\omega = \lvert\pi/2 - \psi_1 - \psi_2\rvert$ $\psi_1 = \operatorname{arccotan} \dfrac{c^2(a^2 + b^2 - 2d^2) - (a^2 - b^2)^2 + D(a^2 - b^2 - d^2)}{(D - b^2 + d^2)\sqrt{4a^2d^2 - (a^2 - b^2 - d^2)^2}}$ $\psi_2 = \operatorname{arccotan} \dfrac{b^2(a^2 - b^2) + d^2(a^2 - b^2) - D(a^2 - b^2 + d^2)}{(D - b^2 + d^2)\sqrt{4a^2d^2 - (a^2 - b^2 - d^2)^2}}$ $D = \sqrt{(a^2 - d^2)^2 - (a^2 - b^2)(b^2 - d^2)}$
(5)	$\omega = \sqrt{(q - r)^2 + 2t^2}$	$\omega = \left\lvert \arcsin \dfrac{c^2(a^2 + b^2)\sin^2\alpha - b^2(a + c\cos\alpha)(2Da + c\cos\alpha)}{\sqrt{c^2(a^2 + b^2)\sin^2\alpha + b^2(a + c\cos\alpha)^2}\sqrt{c^2(a^2 + b^2)\sin^2\alpha + b^2(2Da + c\cos\alpha)^2}} \right\rvert$ $D = \dfrac{ac\cos\alpha}{b^2 - a^2}$

Table 3.4.3.6 (*cont.*)

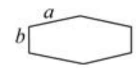
Expression	ω as a function of spontaneous strain components $\begin{pmatrix} q & v & u \\ v & r & t \\ u & t & s \end{pmatrix}$	ω as a function of lattice parameters $a, b, c; \alpha = \angle(b; c), \beta = \angle(a; c), \gamma = \angle(a; b)$  (*)
(6)	$\omega = \frac{\sqrt{3}}{2}\sqrt{(q-r)^2 + 4t^2}$	$\omega = \left\lvert \arcsin \frac{(4a^2 - b^2)\left[\left(1 - \frac{c\cos\beta}{a+b}\right)b\cos\beta - \frac{c}{2}\right] + \frac{3cb^2\sin^2\beta}{2}}{\sqrt{4a^2 - b^2(1 - 9\sin^2\beta)}\sqrt{(ac\sin\beta)^2 + (4a^2 - b^2)\left[1 - \frac{c\cos\beta}{a+b})b - \frac{c\cos\beta}{2}\right]^2}} \right\rvert$ (*)
(7)	$\omega = 2\lvert t\rvert$	$\omega = \lvert\pi/2 - \alpha\rvert$
(8)	$\omega = \frac{\sqrt{3}}{2}\sqrt{(q-r)^2 + 4t^2}$	$\omega = \left\lvert \arcsin \frac{3b^2c - c(4a^2 - b^2)\sin^2\alpha + 2b^2D\sqrt{4a^2 - b^2}\cos\alpha}{\sqrt{b^2 + (4a^2 - b^2)\sin^2\alpha}\sqrt{9b^2c^2 + (4a^2 - b^2)(c^2\sin^2\alpha + 4b^2D^2) + 12b^2Dc\sqrt{4a^2 - b^2}}} \right\rvert$ (*) $D = \frac{2ac\cos\alpha}{b^2 - a^2}$
(9)	$\omega = 2\sqrt{q^2 + f^2}$	$\omega = \left\lvert \arccos \frac{\sqrt{1 - \cos^2\alpha - \cos^2\beta - \cos^2\gamma + 2\cos\alpha\cos\beta\cos\gamma}}{\sin\alpha} \right\rvert$
(10)	$\omega = \frac{\sqrt{3}}{2}\lvert q - r\rvert$	$\omega = \left\lvert \arcsin \frac{b^2 - a^2}{a\sqrt{2b^2 + a^2}} \right\rvert$
(11)	$\omega = \lvert q - r\rvert$	$\omega = \left\lvert \arcsin \frac{a^2 - b^2}{b^2 + a^2} \right\rvert$
(12)	$\omega = \sqrt{(q-s)^2 + 2v^2}$	$\omega = \left\lvert \arcsin \frac{c^2(D\cos\gamma - 1) - a^2\sin^2\gamma}{\sqrt{c^2 + a^2\sin^2\gamma}\sqrt{4c^2(D^2 - D\cos\gamma) + c^2 + a^2\sin^2\gamma}} \right\rvert$ $D = \frac{2a^2\cos\gamma}{c^2 - a^2}$
(13)	$\omega = 2\lvert v\rvert$	$\omega = \lvert\pi/2 - \gamma\rvert$
(14)	$\omega = \lvert q - s\rvert$	$\omega = \left\lvert \arcsin \frac{a^2 - c^2}{c^2 + a^2} \right\rvert$
(15)	$\omega = 2\sqrt{2}\lvert v\rvert$	$\omega = \left\lvert \arcsin \frac{\sqrt{2}\cos\alpha}{1 + \cos\alpha} \right\rvert$

Table 3.4.3.6 (*cont.*)

Expressions for component B of wall normal as a function of spontaneous strain components and lattice parameters

Equation	B as a function of spontaneous strain components $\begin{pmatrix} q & v & u \\ v & r & t \\ u & t & s \end{pmatrix}$	B as a function of lattice parameters $a, b, c; \alpha = \angle(b; c), \beta = \angle(a; c), \gamma = \angle(a; b)$
(*a*)	$B = \frac{t}{u}$	
(*b*)	$B = \frac{2v + \sqrt{(q-r)^2 + 4v^2}}{q-r}$	$B = \frac{-2ab\cos\gamma + \sqrt{(2ab\cos\gamma)^2 + (b^2 - a^2)}}{b^2 - a^2}$
(*c*)	$B = \frac{(q-r) + 2\sqrt{3}v + 4\sqrt{(q-r)^2 + 4v^2}}{\sqrt{3}(r-q) + 2v}$	$B = 2\frac{a^2 - c^2 - \sqrt{(a^2-c^2)^2 - (a^2-b^2)(b^2-c^2)}}{a^2 - b^2} - 1$
(*d*)	$B = \frac{2t}{q-r}$	
(*e*)	$B = \frac{4t}{r-q}$	
(*f*)	$B = \frac{4t}{q-r}$	
(*g*)	$B = \frac{4t}{r-q}$	
(*h*)	$B = \frac{-u}{v}$	
(*k*)	$B = \frac{2v}{s-v}$	$B = \frac{2a^2\cos\gamma}{c^2 - a^2}$

3.4.3.6.4.1. *Explanation of Table 3.4.3.6*

Table 3.4.3.6 presents representative domain pairs of all classes of ferroelastic domain pairs for which compatible domain walls exist. The first five columns concern the domain pair. In subsequent columns, each row splits into two rows describing the orientation of two associated perpendicular equally deformed planes and the symmetry properties of the four domain twins that can be formed from the given domain pair. We explain the meaning of each column in detail.

The first three columns specify *domain pairs*.

F_1: point-group symmetry (stabilizer in K_{1j}) of the first domain state $\mathbf{S}_1$ in a single-domain orientation.

g_{1j}: switching operations (if available) that specify the domain pair $(\mathbf{S}_1, \mathbf{S}_j = g_{1j}\mathbf{S}_1)$. Subscripts x, y, z specify the orientation of the symmetry operations in the Cartesian coordinate system of K_{1j}. Subscripts x', y' and x'', y'' denote a Cartesian coordinate system rotated about the z axis through 120 and 240°, respectively, from the Cartesian coordinate axes x and y. Diagonal directions are abbreviated: $p = [111]$, $q = [\bar{1}\bar{1}1]$, $r = [1\bar{1}\bar{1}]$, $s = [\bar{1}1\bar{1}]$. Where possible, mirror planes and 180° rotations are chosen such that the two perpendicular permissible walls have crystallographic orientations.

K_{1j}: twinning group $K(F_1, g_{1j})$ of the domain pair $(\mathbf{S}_1, \mathbf{S}_j)$. For the pair with $F_1 = m_{x\bar{y}}2_{xy}m_z$ and $K = m\bar{3}m$, where the twinning group does not specify the domain pair unambiguously, we add after K_{1j} in parentheses a switching operation $2^{\star}_{xz}$ or $m^{\star}_{xz}$ that defines the domain pair.

Axis: axis of ferroelastic domain pair around which single-domain states must be rotated to establish a contact along a compatible domain wall. This axis is parallel to the intersection of the two compatible domain walls given in the column *Wall normals* and its direction $\mathbf{h}$ is defined by a vector product $\mathbf{h} = \mathbf{n}_1 \times \mathbf{n}_2$ of normal vectors $\mathbf{n}_1$ and $\mathbf{n}_2$ of these walls. The letter B denotes components of $\mathbf{h}$ which depend on spontaneous strain.

Equation: a reference to an expression, given at the end of the table, for the direction $\mathbf{h}$ of the axis, where the component B in the column *Axis* is expressed as functions of spontaneous strain components, and the matrices above these expressions give the form of the 'absolute' spontaneous strain.

Wall normals: orientation of equally deformed planes. As explained above, each plane represents two mutually reversed compatible domain walls. Numbers or parameters B, C given in parentheses can be interpreted either as components of normal vectors to compatible walls or as intercepts analogous to Miller indices: Planes of compatible domain walls $Ax_1 + Bx_2 + Cx_3 = 0$