ADDITIONS AND CORRECTIONS

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Joseph Ivanic and Klaus Ruedenberg*: Rotation Matrices for Real Spherical Harmonics. Direct Determination by Recursion

Page 6342. Several misprints have been found in the original article. In eqs 6.7, 7.9b, and 7.9c a minus sign should be changed into a plus sign. In eq 7.9a an index should be changed from 1 to −1. The correct equations are as follows:

$$R^{l+1}_{-mm'} = a^{l+1}_{mm'}R_{00}R^{l}_{-mm'} + b^{l+1}_{mm'}[(1+\delta_{m1})^{1/2}R_{-10}R^{l}_{m-1,m'} + (1-\delta_{m1})R_{10}R^{l}_{-m+1,m'}]/2 + b^{l+1}_{-mm'}[R_{-10}R^{l}_{m+1,m'} - R_{10}R^{l}_{-m-1,m'}]/2 \quad (6.7)$$

$$R^{l+1}_{0,-m'-1} = c^{l+1}_{0,m'+1}(R_{0,-1}R^{l}_{0m'} + R_{01}R^{l}_{0,-m'}) - d^{\,l+1}_{0,m'+1}[R_{1,-1}R^{l}_{1m'} + R_{11}R^{l}_{1,-m'} + R_{-1,-1}R^{l}_{-1m'} + R_{-11}R^{l}_{-1,-m'}]/\sqrt{2} \quad (7.9a)$$

$$R^{l+1}_{m,-m'-1} = c^{l+1}_{m,m'+1}(R_{0,-1}R^{l}_{mm'} + R_{01}R^{l}_{m,-m'}) + d^{\,l+1}_{m,m'+1}[(1+\delta_{m1})^{1/2}(R_{1,-1}R^{l}_{m-1,m'} + R_{11}R^{l}_{m-1,-m'}) - (1-\delta_{m1}) \times (R_{-1,-1}R^{l}_{-m+1,m'} + R_{-11}R^{l}_{-m+1,-m'})]/2 - d^{\,l+1}_{-m,m'+1}[(R_{1,-1}R^{l}_{m+1,m'} + R_{11}R^{l}_{m+1,-m'}) + (R_{-1,-1}R^{l}_{-m-1,m'} + R_{-11}R^{l}_{-m-1,-m'})]/2 \quad (7.9b)$$

$$R^{l+1}_{-m,-m'-1} = c^{l+1}_{m,m'+1}(R_{0,-1}R^{l}_{-mm'} + R_{01}R^{l}_{-m,-m'}) + d^{\,l+1}_{m,m'+1}[(1+\delta_{m1})^{1/2}(R_{-1,-1}R^{l}_{m-1,m'} + R_{-1,1}R^{l}_{m-1,-m'}) + (1-\delta_{m1})(R_{1,-1}R^{l}_{-m+1,m'} + R_{11}R^{l}_{-m+1,-m'})]/2 + d^{\,l+1}_{-m,m'+1}[(R_{-1,-1}R^{l}_{m+1,m'} + R_{-11}R^{l}_{m+1,-m'}) - (R_{1,-1}R^{l}_{-m-1,m'} + \mathrm{R}_{11}R^{l}_{-m-1,-m'})]/2 \quad (7.9c)$$

The possibility of errors was mentioned to us by Mr. Hannes Edvardson of Uppsala University.

The correct Tables 1 and 2 are as follows:

TABLE 1: Definitions of the Numerical Coefficients $u^{\,l}_{mm'}$, $v^{\,l}_{mm'}$, and $w^{\,l}_{mm'}$ Occurring in Eqs 8.1

	$\lvert m'\rvert < l$	$\lvert m'\rvert = l$
$u^{\,l}_{mm'}$	$\left[\frac{(l+m)(l-m)}{(l+m')(l-m')}\right]^{1/2}$	$\left[\frac{(l+m)(l-m)}{(2l)(2l-1)}\right]^{1/2}$
$v^{\,l}_{mm'}$	$\frac{1}{2}\left[\frac{(1+\delta_{m0})(l+\lvert m\rvert-1)(l+\lvert m\rvert)}{(l+m')(l-m')}\right]^{1/2}(1-2\delta_{m0})$	$\frac{1}{2}\left[\frac{(1+\delta_{m0})(l+\lvert m\rvert-1)(l+\lvert m\rvert)}{(2l)(2l-1)}\right]^{1/2}(1-2\delta_{m0})$
$w^{\,l}_{mm'}$	$-\frac{1}{2}\left[\frac{(l-\lvert m\rvert-1)(l-\lvert m\rvert)}{(l+m')(l-m')}\right]^{1/2}(1-\delta_{m0})$	$-\frac{1}{2}\left[\frac{(l-\lvert m\rvert-1)(l-\lvert m\rvert)}{(2l)(2l-1)}\right]^{1/2}(1-\delta_{m0})$

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TABLE 2: Definitions of the Functions $U^{l}_{mm'}$, $V^{l}_{mm'}$, and $W^{l}_{mm'}$ Occurring in Eqs 8.1

	$m = 0$	$m > 0$	$m < 0$
$U^{l}_{mm'}$	${}_0P^{l}_{0m'}$	${}_0P^{l}_{mm'}$	${}_0P^{l}_{mm'}$
$V^{l}_{mm'}$	${}_1P^{l}_{1m'} + {}_{-1}P^{l}_{-1m'}$	${}_1P^{l}_{m-1,m'}(1 + \delta_{m1})^{1/2} - {}_{-1}P^{l}_{-m+1,m'}(1 - \delta_{m1})$	${}_1P^{l}_{m+1,m'}(1 - \delta_{m,-1}) + {}_{-1}P^{l}_{-m-1,m'}(1 - \delta_{m,-1})^{1/2}$
$W^{l}_{mm'}$		${}_1P^{l}_{m+1,m'} + {}_{-1}P^{l}_{-m-1,m'}$	${}_1P^{l}_{m-1,m'} - {}_{-1}P^{l}_{-m+1,m'}$

where the functions ${}_iP^{l}_{\mu m'}$ are given in terms of the matrix elements R_{ij} and $R^{l-1}_{\mu,m'}$, as follows:

	$\lvert m'\rvert < l$	$m' = l$	$m' = -l$
${}_iP^{l}_{\mu m'}$	$R_{i,0}R^{l-1}_{\mu,m'}$	$R_{i,1}R^{l-1}_{\mu,l-1} - R_{i,-1}R^{l-1}_{\mu,-l+1}$	$R_{i,1}R^{l-1}_{\mu,-l+1} + R_{i,-1}R^{l-1}_{\mu,l-1}$

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