In this new basis the **f** vector has the components $f'_1 f'_2 \ldots f'_n$ found by the transformation

$$(f'_1 f'_2 \ldots f'_n) = (f_1 f_2 \ldots f_n)\mathbf{M}\,. \tag{8}$$

Now it is obvious from the form (5) that with the help of this new basis $\mathbf{b}_1\,\mathbf{b}_2 \ldots \mathbf{b}_n$, the inner product can be written:

$$\mathbf{f}\cdot\mathbf{v} = \mathbf{F}'\mathbf{V} = (f'_1 \cdot v_1 + f'_2 \,.\, v_2 + \ldots f'_n \cdot v_n) \tag{9}$$

or for the length or the norm of the vector:

$$(\mathbf{f}\cdot\mathbf{f})^{1/2} = (f'_1 \cdot f_2 + f'_2 \cdot f_2 + \ldots f'_n \cdot f_n)^{1/2}\,. \tag{10}$$

To conclude, we state the fact that in any given vector space a reciprocal basis can be constructed with the help of the metric matrix. This reciprocal basis can be used to conserve the form (9) of an inner product. For a linear operator $\hat{P}$ it conserves the form of the matrix-element in the representation of this operator, namely:

$$P_{ij} = \mathbf{b}_i \cdot (\hat{P}\mathbf{a}_j)\,. \tag{11}$$

For the three-dimensional Euclidian space it can easily be verified that definition (7) is equivalent to definition (1). The difference is that definition (7) does not need the concept of a skew product of vectors, a concept which loses significance in spaces of more or fewer dimensions.

Acta Cryst. (1974). A**30**, 847

Coherent neutron scattering amplitudes. By G. E. BACON (for THE NEUTRON DIFFRACTION COMMISSION), *The University, Sheffield S*10 2*TN, England*

(*Received* 28 *May* 1974; *accepted* 28 *May* 1974)

A list is given which summarizes additions and significant changes which have been reported since the publication of a full list of scattering amplitudes in 1972 [*Acta Cryst.* (1972). A**28**, 357–358].

In Table 1 are listed additions and significant changes which have been reported since the publication of a full list of scattering amplitudes by Bacon (1972).

Table 1. *Coherent scattering amplitudes*

Z	Element for Isotope	b (10^{-12} cm)	Reference
7	^{15}N	0·65	Kuznietz & Wedgwood (1972).
12	^{24}Mg	0·55	Abul Khail, Amin, Al-Naimi, Al-Saji, Al-Shahery, Petrunin & Zemlyanov (1972).
	^{25}Mg	0·36	
	^{26}Mg	0·49	
52	Te	0·58	Lindqvist & Lehmann (1973).
60	Nd	0·75	Schobinger-Papamentellos, Fischer, Vogt & Kaldis (1973).
62	^{154}Sm	0·96	Koehler & Moon (1972).
63	Eu	0·68 at $\lambda = 1·067$ 0·61 at $\lambda = 0·75$ Å	W. C. Koehler & J. W. Cable (unpublished).
64	^{160}Gd	0·915	Koehler, Moon, Cable & Child (1972).
91	^{231}Pa	$1·3 \pm 0·2$	Wedgwood & Burlet (1974).
95	^{243}Am	0·76	Mueller, Lander & Reddy (1974).
96	^{244}Cm	$\sim$0·7	

References

ABUL KHAIL, A., AMIN, F. A., AL-NAIMI, A., AL-SAJI, A., AL-SHAHERY, G. Y., PETRUNIN, V. F. & ZEMLYANOV, M. G. (1972). *Acta Cryst.* A**28**, 473.
BACON, G. E. (1972). *Acta Cryst.* A**28**, 357–358.
KOEHLER, W. C. & MOON, R. M. (1972). *Phys. Rev. Lett.* **29**, 1468–1472.
KOEHLER, W. C., MOON, R. M., CABLE, J. W. & CHILD, H. R. (1972). *J. Phys. Radium*, **32** (C1), 296–298.
KUZNIETZ, M. & WEDGWOOD, F. A. (1972). *Acta Cryst.* A**28**, 655.
LINDQVIST, O. & LEHMANN, M. S. (1973). *Acta Chem. Scand.* **27**, 85–95.
MUELLER, M. H., LANDER, G. H., REDDY, J. F. (1974). *Acta Cryst.* A**30**, 667–671.
SCHOBINGER-PAPAMENTELLOS, P., FISCHER, P., VOGT, O. & KALDIS, E. (1973). *J. Phys. C*, 725–737.
WEDGWOOD, F. A. & BURLET, P. (1974). In the press.