Erratum

Erratum: Macroscopic and microscopic model analysis of polarized proton scattering on ^{18}O [Phys. Rev. C 10, 1645 (1974)]

J. L. Escudié, R. Lombard, M. Pignanelli, F. Resmini, and A. Tarrats

Because of a computer error, it is necessary to change the normalization of the experimental cross section for some levels by a factor of "f." It then follows that the deformation parameters β (Table II) and the normalizing factors Λ (Table IV) are reduced by a factor $\sqrt{f}$ and changed to the values given in the following table:

J^π	E (MeV)	f	β_{DWBA}	Λ
4^+	3.55	2.5	0.20	0.9
0^+	3.63	2.5	0.08	1.26
2^+	3.92	2.73	0.18	1.91
1^-	4.45	2.73	0.13	3.81
3^-	5.09	2.73	0.39	2.36
2^+	5.25	2.5		3.16
2^-	5.52	2.5		2.00

The levels 0^+(g.s.), 2^+(1.98 MeV), and 4^+(7.11 MeV) are unchanged.

Coupled-channel calculations for the $0^+ - 3^-$ states (corrected data), using the vibrational model, have been performed with $\beta = 0.37$ and the following optical potential:

$$V = 52.99 \text{ MeV}, \quad r = 1.06 \text{ fm}, \quad a = 0.75 \text{ fm},$$

$$W_i = 5.37 \text{ MeV}, \quad r_i = 1.39 \text{ fm}, \quad a_i = 0.66 \text{ fm},$$

$$V_s = 4.90 \text{ MeV}, \quad r_s = 0.90 \text{ fm}, \quad a_s = 0.50 \text{ fm}.$$

The above changes have the following effects:
(1) The stated discrepancy for the measured β of the 2^+ level at 3.92 MeV with the (α, α') experiment is removed.
(2) The two 4^+ levels have about the same magnitude for their cross sections.
(3) For the 2^+ level at 3.92 MeV, Λ becomes nearly equal to λ_p (which remains unchanged) so that there is no longer evidence for a lack of neutron excitation.
(4) Apart from the 1^-(4.45 MeV) and 2^+(5.25 MeV) levels the values of Λ correspond to a reasonable effective charge ($\Lambda = 1 + 2l_0$, where l_0 is the isoscalar polarization charge).