

ERRATA

**Erratum: Lifetimes and Rydberg-valence state mixing of the $c' \ ^1\Sigma_g^+(v=4)$
and $c \ ^1\Pi_u(v=4)$ states of N_2
[Phys. Rev. A 48, 2762 (1993)]**

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PACS number(s): 33.70.Fd, 99.10.+g

The energies quoted for the $R(16)$ and $R(18)$ transitions in Table II are interchanged. $R(16)$ occurs at 13 838.469, and $R(18)$ at 13 786.888 cm^{-1} .

Due to a programming error, all entries in column 1 of Table III, and some in column 3 of Table III, are incorrect. The energy values derived from the experimental data (as they form the basis for the rotational constants in Table IV) are provided in the corrected table below.

Dr. Jean-Yves Roncin (Universite Jean Monnet, Saint Etienne) has kindly pointed out these typographical errors in Tables II and III. In addition, he has referred us to more precise values of the dissociation energy of molecular nitrogen than those that we used on several occasions in our paper. Following the work of J.-Y. Roncin, F. Launay, and M. Larzilliere [1], the dissociation energies of $^{14}N_2 X \ ^1\Sigma_g^+$ to the lowest four dissociation limits are given below.

$$\begin{aligned} D_0(N(^4S^o)+N(^4S^o)) & 78\,669 \pm 9 \text{ cm}^{-1} \\ D_0(N(^4S^o)+N(^2D^o)) & 97\,894 \pm 9 \text{ cm}^{-1} \\ D_0(N(^4S^o)+N(^2P^o)) & 107\,509 \pm 9 \text{ cm}^{-1} \\ D_0(N(^2D^o)+N(^2D^o)) & 117\,118 \pm 9 \text{ cm}^{-1} \end{aligned}$$

TABLE III. Term energies obtained in this work. The energy scale is referenced to the absolute energy given by Hanisco and Kummel [12] for $J=0$ of the $a'' \ ^1\Sigma_g^+$ state, 98 840.59 cm^{-1} .

J	Term energy			
	$a'' \ ^1\Sigma_g^+$ $v=0$	$c' \ ^1\Sigma_u^+$ $v=4$	$c \ ^1\Pi_u^+$ $v=4$	$b' \ ^1\Sigma_u^+$ $v=13$
0	98 840.590			
1	98 844.419		112 852.426	
2	98 852.075	112 771.416		
3	98 863.560	112 777.998		
4	98 878.872	112 787.871	112 870.994	112 921.892
5	98 898.010	112 801.005		112 931.497
6	98 920.972	112 817.386	112 902.930	112 943.725
7	98 920.972	112 836.916		
8	98 947.759	112 859.572	112 947.099	
9	98 978.368	112 885.198	112 971.907	
10	99 012.797	112 913.637	112 998.557	
11	99 051.047	112 944.614	113 026.042	
12	99 093.114	112 977.736	113 055.775	
13	99 138.999	112 012.513		
14	98 865.474	113 048.384	113 124.617	
15	99 242.218	113 084.994		
16	99 299.551	113 122.185		
17	99 360.701	113 160.208		
18	99 425.668	113 199.170		
19	99 494.455			
20	99 567.065	113 281.343		
21	99 643.502			
21	99 723.772	113 370.205		

[1] J.-Y. Roncin, F. Launay, and M. Larzilliere, Phys. Rev. Lett. 53, 159 (1984).