

TABLE II. Explicit comparison with experimental ${}^3P^e-{}^3D^0$ transitions.

Level(<i>n</i>)	λ (Å)	
	Calculated	Observed (vac.)
1	3014.46	3014.6 ± 3
2	2562.71	2561.76 ± 1
3	2400.91	2402.71 ± 1
4	2321.91	2319.69 ± 1

pansion results of Doyle *et al.*³ Careful optimization of the energy with respect to four nonlinear parameters still did not allow us to approach the $1/z$ results and we believe those results are too low.

The mass-polarization correction

$$E_M = - (2/M) \langle \Phi \vec{\nabla}_1 \cdot \vec{\nabla}_2 \Phi \rangle$$

is given for all the states in Table I. Finally, the positions of the D states, including the reduced mass and the mass-polarization corrections, with respect to the ground state of He are given in Table I.

Combining the ${}^3D^0(1)$ results with the position of ${}^3P^e$ state,⁵ we find the wavelength of the transition ${}^3P^e-{}^3D^0$ is equal to 3014.16 Å. This agrees with the results of Doyle *et al.*³ and also with the recent experimental results of Berry *et al.*⁶ An explicit comparison with the experimental ${}^3P^e-{}^3D^0$ transitions is given in Table II.

No ${}^1,{}^3D^0$ states in H^- were found in this calculation.

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¹A. K. Bhatia, Phys. Rev. A **6**, 120 (1972).

²A. K. Bhatia and A. Temkin, Rev. Mod. Phys. **36**, 1050 (1964).

³H. Doyle, M. Oppenheimier, and G. W. F. Drake, Phys. Rev. A **5**, 26 (1972).

⁴P. McCavert and M. R. H. Rudge, J. Phys. B **5**, 832 (1972).

⁵A. K. Bhatia, Phys. Rev. A **5**, 1667 (1970).

⁶H. G. Berry, J. Desesquelles, and M. Dufay, Phys. Rev. A **6**, 600 (1972).

ERRATUM

Electronic Transmission Spectroscopy: Core-Excited Resonances in Diatomic Molecules, L. Sanche and G. J. Schulz [Phys. Rev. A **6**, 69 (1972)]. Figure 10 has the band designations incorrectly labeled. Below we show the corrected Fig. 10.

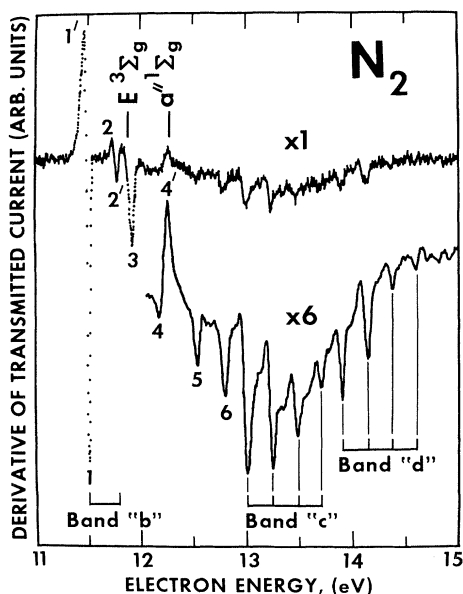


FIG. 10. Derivative of transmitted current vs electron energy in N_2 . The giant resonance 1-1' is a ${}^2\Sigma_g^+$, N_2^- state whose parents are the $E^3\Sigma_g^+$ and $a''^1\Sigma_g^+$ Rydberg states of N_2 . The grandparent of the structures 1-4 is the ground state of N_2^+ . The other resonances, including bands "c" and "d" which appear on the higher-sensitivity run at the bottom of the figure, have the $A^2\Pi_u$ state of N_2^+ as grandparent.