

The second level has split up into two adjacent levels, such that the $2p$ orbit is more stable than the $2s$ orbit.

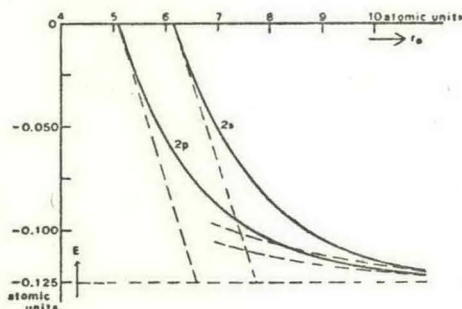


Fig. 2. Detail of the (E, r_0) -curves for the $2s$ - and $2p$ -levels. Dotted lines are the tangents at $E = 0$ and the asymptotes of the approximation of § 2. $E = -0.125$ is also an asymptote for both curves.

§ 3. *Nodes of the wave functions.* When certain values of the azimuthal quantum number $l = 0, 1, 2, \dots$ and of the energy E (corresponding with n by formula (2); n can eventually be imaginary

TABLE II

The $1s$ -level ($N = 1, l = 0$)			
n	E atomic units	r_0 atomic units	from section
1	-0.500	∞	3a
1.004	-0.4960	5.020	3b
1.017	-0.4834	4.068	3b
1.064	-0.4417	3.192	3b
1.123	-0.3965	2.807	3b
1.236	-0.3273	2.472	3b
1.467	-0.2323	2.200	3b
1.500	-0.2222	2.178	3b
2	-0.1250	2.000	3a
2.500	-0.0800	1.934	3b
3	-0.0566	1.902	3a
∞	0	1.835	3c
$3i$	0.0566	1.778	3d
$2i$	0.125	1.711	3d
i	0.500	1.448	3d
$0.573i$	1.928	1.15*	3f
$0.509i$	2.193	1.08*	3f
$0.446i$	2.518	1.01	3f
$0.382i$	3.427	0.91	3f
$0.318i$	4.935	0.81	3f
$0i$	∞	0	3e