Student name: _____ Date: _____ [tab-a026]

[Exercise]

- Carry out two simulations: the first one with $a_N > a_H(NH)$ (Simulation 1) and the second with $a_H(NH) > a_N$ (Simulation 2).
- Print the correct simulation with the spectra without overlap and including the tree of successive splittings.
- Show on the tree of successive splittings the relative theoretical intensities of each multiplet. The interpretation of the radical [a024] (section 8.2.1 and Fig. 27) can help you with this problem.
- Mark with an arrow the lines of the spectrum that add their intensities and indicate their relative theoretical intensity.

[Exercise]

- Knowing that $a_D = a_H \cdot 0.1535$ do the simulation of the spectrum that it would obtain for the molecule $(CH_3 - CH_2)_2 \overset{\bullet +}{N} D$ (simulation-D).
- Print the final simulated spectrum.
- Fill the 2^{nd} and 3^{rd} rows of the following Table.

Table of hyperfine splittings. Diethyl amine cation radical [a026 y a027].

	[a026]	Simulation-D	[a027]
$a_H(CH_2)$			
a_N			
$a_H(NH)$ or $a_D(ND)$			