Student name: _____ Date: _____ [tab-a025]

[Exercise]

- Carry out two simulations: the first one with $a_N > a_F$ (simulation 1) and the second with $a_F > a_N$ (Simulation 2).
- Print both simulations with the tree of successive splittings.
- Measure the length and the number of lines of the two simulated spectra and write down these values in the Table-a025.
- Number all lines of the spectrum simulated-1 and mark on it the central lines of the five septets that give place to the quintet originated by the coupling with the nitrogen. Measure and write the Table the heights of these five lines.
- Number all lines of the spectrum simulated-2 and mark on it the central lines of the seven quintets that will give a septet originated by the coupling with the fluorine. Measure and write in the Table the heights of these seven lines.
- Complete the Table and say which of the two simulations is more close to the experimental spectrum.
- Enclosed the result in the laboratory notebook.

Table of simulations of Bis (tri-fluoro methyl) semidiazoxide anion radical [a025].

Simulation 1 ($a_N > a_F$) N (spectrum) = ... lines. L (spectrum) = ... mT.

Intensities of quintets and position of lines					
	Line-.....	Line-.....	Line-.....	Line-.....	Line-.....
Pixels					
Normalized[a]					
Theoretical[b]					

Simulation 2 ($a_F > a_N$) N (spectrum) = ... lines. L (spectrum) = ... mT.

Intensities of septets and position of lines							
	Line-.....	Line-.....	Line-.....	Line-.....	Line-.....	Line-.....	Line-.....
Pixels							
Normalized[a]							
Theoretical[b]							

[a] Normalize the intensities so that the smallest one will worth the unit.
[b] Theoretical intensities.