

^{77}Se and ^{125}Te NMR Spectroscopy: Tools For Reaction and Structure Investigations

Prof. Dr. Márcio Santos da Silva
Centro de Ciências Químicas, Farmacêuticas e de Alimentos – CCQFA
Universidade Federal de Pelotas - UFPel

silva.ms@ufpel.edu.br

Nuclear magnetic resonance (NMR) is a consolidated tool for structure elucidation, conformational analysis and spatial configuration. However, in the last decades, NMR has started to change and, currently, this equipment has become also an important instrument for dynamic and quantitative evaluations.

NMR spectroscopy has many characteristics of a good quantitative analytical method: it requires minimal sample, is rapid and nondestructive, yields information on both the identify and relative amount of each analyte present, and is now readily accessible to most universities. Based on this features, ^{77}Se and ^{125}Te nuclides emerges as a specific probe to evaluate reactions, structures and molecular dynamics. Thus, chalcogen compounds and their related process take advantages from these NMR possibilities.

Accordingly, our research involves exploring these opportunities, to understand the reactions and optimizations, compounds stability, chirality and molecular dynamic, giving more information of chalcogen compounds and indicating the pathway for future research.

