SUGARS CONTAINING FOOD – NMR APPLICATIONS

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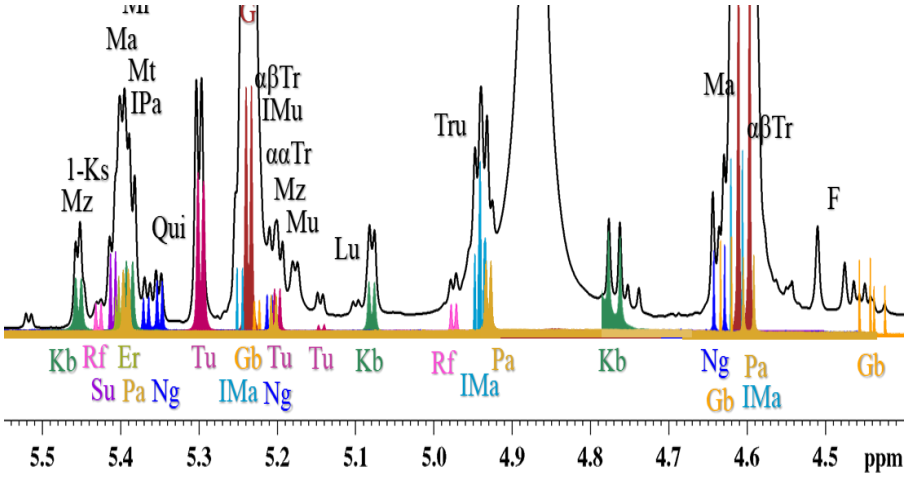
Saccharides, or sugars belong to the most abundant classes of biomolecules. Various types of saccharides, including mono-, oligo- and polysaccharides are traditionally studied by NMR spectroscopy, as one of the major tools to foster the advance of food chemistry. The structure, conformation and dynamics of mono- and oligosaccharides are of particular importance because of their biological relevance.



Determination of quality, authenticity and shelf life of food products are gaining increasing interest in recent years due to the importance for human health. Adulteration and improper labelling are still often encountered despite the efforts of the regulatory authorities. Combining NMR spectroscopy and chemometrics provides detailed insight in the characteristic properties, allowing distinction in the origin of various products.

Recent results to determine small differences in the chemical profile of sugar containing food – honey, jam, mead and wine will be presented. Elucidation of composition, determination of similarities and common components and proof of botanical, geographical and entomological origin will be discussed.

Acknowledgements: This research was supported by Project No BG05M2OP001-1.002-0012, Center for Competence "Sustainable utilization of bio-resources and waste from medicinal and aromatic plants for innovative bioactive products", funded by the Operational Program "Science and Education for Smart Growth" 2014-2020, co-financed by the European Union through the European Regional Development Fund. Research equipment of Distributed Research Infrastructure INFRAMAT, part of the Bulgarian National Roadmap for Research Infrastructures, supported by Bulgarian Ministry of Education and Science was used in this investigation.