

Chemistry Department

Research Team:

Florina Danalache, Susana Ramos, Fabiana Botelho

Collaborations:

Ciência Viva



Anabela Raymundo – Instituto Piaget



Margarida Moldão and Vitor Alves – Instituto Superior de Agronomia



Paulina Mata

(Assistant Professor)

- Coordinator of the MSc in Gastronomical Sciences (FCT/UNL and ISA/UTL)
- Member of the Advisory Subcommittee of the Chemical Nomenclature and Structure Representation - Division (VIII) of IUPAC.

Objectives

- 1) Stereochemical Nomenclature: Development of the Cahn, Ingold and Prelog System for the Specification of Chirality in Organic Molecules.
- 2) Applications of Hydrocolloids in the Development of New Food Products.
- 3) New Strategies for Science Education and for Activities Aiming to Improve the Public Understanding of Science.

Methodology

- 1) Proposal of extensions and modifications to the 1982 revised CIP Sequence Rules, in order to coherently overcome omissions and ambiguities related with the ranking of ligands for the specification of stereogenic centres (Figure 1).
- 2) Use of a rheological approach for the development new food product, using hydrocolloids (Figure 2).
- 3) Involvement, in collaboration with Ciência Viva, in activities which use food related themes for the introduction of scientific knowledge. Two books were published on this subject. Involvement in projects aiming to improve scientific education of blind people and people with visual disabilities.

Expected Results

- 1) Approval of the proposed version of the CIP Sequence Rules by IUPAC .
- 2) Contribution for the development of new bread products for celiac disease sufferers and also healthy and convenient fruit products.
- 3) Contribution to link the everyday life to high quality natural science research and thus strengthen Science in Society. To contribute to a more inclusive Science Education.

Funding:

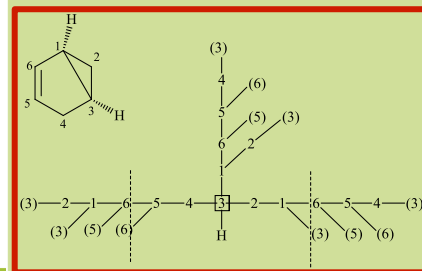


Figure 1

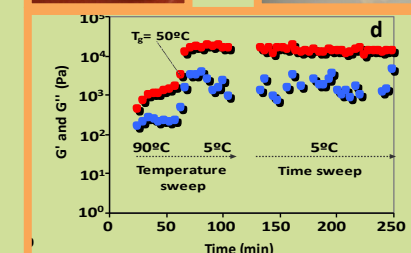
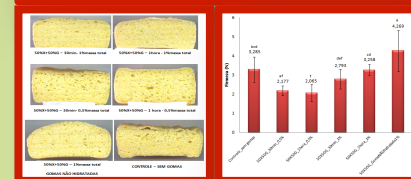
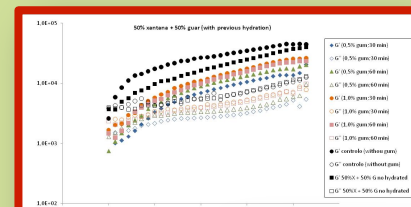


Figure 2