

**XX ENCONTRO  
LUSO-GALEGO  
DE QUÍMICA**

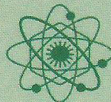
**26 A 28 NOVEMBRO 2014**

**PORTO - PORTUGAL**

**PATROCINADORES INSTITUCIONAIS**



**SOCIEDADE  
PORTUGUESA  
DE QUÍMICA**



**ASOCIACIÓN DE  
QUÍMICOS DE GALICIA**



**Colegio Oficial de  
Químicos de Galicia**

**TÍTULO**

Livro de Resumos do XX Encontro Luso-Galego de Química

**COORDENADORES**

Marcela A. Segundo, Susana Casal, Paula B. Andrade, José L. F. C. Lima

**EDIÇÃO**

Sociedade Portuguesa de Química  
Av. Da República, 45 – 3º Esq  
1050-187 Lisboa – Portugal

**DATA**

Novembro de 2014

**TIRAGEM**

400 Exemplares

**ISBN**

978-989-98541-7-8

**EXECUÇÃO GRÁFICA**

FFUP . Joana Macedo (design)  
Sersilito – Maia (impressão)

**CATALOGAÇÃO RECOMENDADA**

Livro de Resumos do XX Encontro Luso-Galego de Química  
Faculdade de Farmácia, U. Porto, 2014 – 460 p.  
ISBN 978-989-98541-7-8  
Química – Congressos

Reservados todos os direitos. Esta publicação não pode ser reproduzida ou transmitida, no todo ou em parte, por qualquer processo, eletrónico, mecânico, fotocópia, gravação ou outros, sem prévia autorização do Editor.

Os Coordenadores declaram que o conteúdo dos resumos científicos é da inteira responsabilidade dos respetivos autores.

## Comparative evaluation of Portuguese goat and sheep cheeses

Raquel P. F. Guiné<sup>1\*</sup>, Paula M. R. Correia<sup>1</sup>, Ana Cristina Correia<sup>2</sup>

<sup>1</sup>CI&DETS Research centre - IPV and Dep. Food Industry, Agrarian School of Polytechnic Institute of Viseu, Portugal

<sup>2</sup> Dep. Food Industry, Agrarian School of Polytechnic Institute of Viseu, Portugal

\*raquelguine@esav.ipv.pt

Cheese is a solid food made by coagulating milk of different animals. It has a great expression worldwide and there is a great diversity in the types of cheese between and within different countries. Maturation (or cure) plays a key role in the development of the individual characteristics of each cheese [1]. Sheep milk is very rich, containing higher amounts of total solids (19.3%), protein (4.5%) and fat (7.4%), of which most are glycerides (98%) [2,3]. Goat's milk is characterized by having 14.1% dry weight, 3.5% fat and 4.5% protein [4].

In this work, six Portuguese cheeses made exclusively from sheep or goat milk were evaluated at the physical (texture and colour), chemical (moisture, aw, ashes protein and fat) and sensory (preference profile) levels.

At the chemical level the results show some variability between samples by type of cheese, and the sample of sheep's cheese V presented higher values of protein and fat, 29.7% and 63.5%, respectively. This sample was also at the level of the physical parameters evaluated the one that stood out from the others, being darker (lower L\*) and with a greater predominance of red (higher positive a\*) and yellow (higher positive b\*). With respect to texture, specifically the parameters of hardness, gumminess and chewiness, the sample of sheep cheese V resented the highest values.

The samples of goat cheese were very similar among themselves in terms of chemical properties and also texture.

At the sensory level, the sensory profiles of samples from sheep's cheese V and goat's cheese C are very distinct from the rest. While sheep's cheese V has high intensity for the attributes of skin colour, colour of the paste, odour intensity, flavour intensity, acid taste and texture, the goat's cheese C has lower values except for the salty attribute. However, considering the preference of the panellists, sheep's cheese V was the least preferred of all samples, being the most appreciated the cheese samples goat B and sheep S.

Acknowledgment: Thanks to CI&DETS for financial support (PEst-OE/CED/UI4016/2014).

### REFERENCES

- [1] Narimatsu, A.; Dornellas, J.R.F.; Spadoti, L.M.; Pizaia, P.D.; Roig, S.M. *Ciência E Tecnologia Alimentar*. **2003**, *23*, 177-182.
- [2] Fox, P.F.; McSweeney, P.L.H.; Cogan, T.M.; Guinee, T.P. *Fundamentals of Cheese Science*; Springer: Amsterdam, .2000.
- [3] Park, Y.W.; Haenlein, G.F.W. *Handbook of Milk of Non-Bovine Mammals*; John Wiley & Sons: New York, 2008.
- [4] Talpur, F.N.; Bhangar, M.I.; Memon, N.N. *Journal of Food Composition and Analysis*. **2009**, *22*, 59-64.