



# Agricultural Journals

*Czech Journal of*

**FOOD SCIENCES**

[home](#) [page](#) [about us](#) [contact](#)

[us](#)

## Table of Contents

### **IN PRESS**

**CJFS 2014**

**CJFS 2013**

**CJFS 2012**

**CJFS 2011**

**CJFS 2010**

**CJFS 2009**

**CJFS 2008**

**CJFS 2007**

**CJFS 2006**

**CJFS 2005**

**CJFS 2004**

**CJFS 2003**

**CJFS 2002**

**CJFS 2001**

**CJFS Home**

## **Editorial Board**

### **For Authors**

- **Authors Declaration**
- **Instruction to Authors**
- **Guide for Authors**
- **Copyright Statement**
- **Submission**

### **For Reviewers**

- **Guide for Reviewers**
- **Reviewers Login**

---

### **Subscription**

# **Czech J. Food Sci.**

## **K. Hellerová, L. Čurda: Influence of Type of**

# Substrate and Enzyme Concentration on Formation of Galacto-oligosaccharides

Czech J. Food Sci., 27 (2009): S372-S374

Different substrates and different concentrations of enzyme (Maxilact LX 5000) for galacto-oligosaccharides synthesis were tested. Lactose in phosphate buffer (138 mmol/l), ultrafiltration permeate (115 mmol/l), recombined whey (136 mmol/l) were used as substrates. Concentrations of used enzyme were from 0.15 to 15 U/ml for lactose in buffer, from 0.12 U/ml to 1.5 U/ml for ultrafiltration permeate and 1.5 U/ml for recombined whey. Reaction products were analysed by HPLC. There was obtained  $6.4 \pm 0.4$  mmol/l of galacto-oligosaccharides (GOS) for lactose in buffer, it means that  $0.0633 \pm 0.0025$  g/g of lactose was converted to GOS. The conversions of lactose to GOS for recombined whey and ultrafiltration permeate were  $0.0669 \pm 0.0079$  and  $0.0920 \pm 0.0010$  g/g. There was

obtained  $7.3 \pm 0.1$  mmol/l of GOS for ultrafiltration permeate and for recombined whey  $5.9 \pm 0.1$  mmol/l of GOS.

**Keywords:**

galacto-oligosaccharides;  $\beta$ -galactosidase; permeate; whey; lactose

[ [fulltext](#) ]

---

© 2011 [Czech Academy of Agricultural Sciences](#)

XHTML1.1 VALID

CSS VALID