

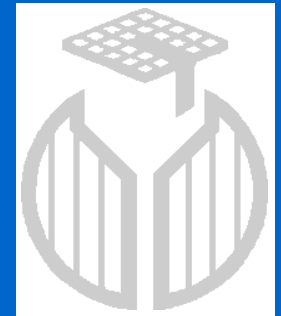
•
•
•

Unité de brasserie et des industries alimentaires

Université catholique de Louvain

Faculté d'Ingénierie Biologique,
Agronomique et Environnementale

Earth and Life Institute (ELIM)



INBR

Croix du Sud, 2 bte 7 - B-1348 Louvain-la-Neuve

Responsable : Prof. Sonia COLLIN

sonia.collin@uclouvain.be

• • • • • • • • • •

-
-
-

INBR in a few words

Identification of key-flavours

New methodologies in flavour research

Synthesis pathways

A. Flavour Quality (aromas, polyphenols ..)



FLAVOURS IN FERMENTED FOODS

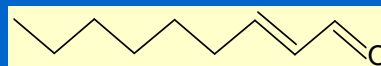


B. Flavour Stability through Food Processing and Storage

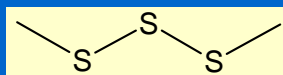
ELUCIDATION OF THE PATHWAYS LEADING TO BEER STALING

the main international contributions of our laboratory since 1990

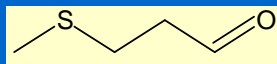
⇒ *trans*-2-Nonenal (cardboard)



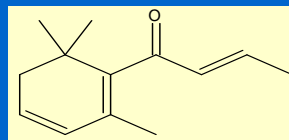
⇒ Dimethyltrisulfide (cabbage)



⇒ Methional (potato)

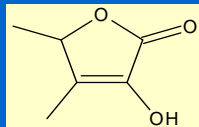


⇒ β -Damascenone (red fruit)



⇒ 4-Vinylsyringol (smoky, old)

⇒ Sotolon (Madeire)



⇒ Polyfunctional thiols (onion, empyreumatic, ribes)

PhD theses :

S. Noël (98) G. Lermusieau (02)
C. Liégeois (04)

L. Gijs (03)

Ph. Perpète (00)

D. Callemien (07)

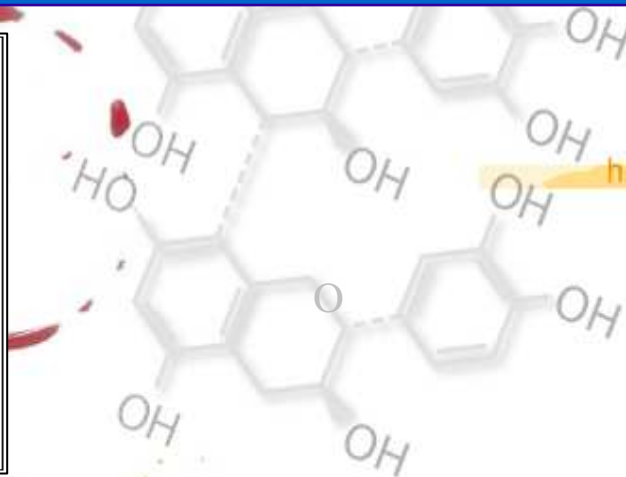
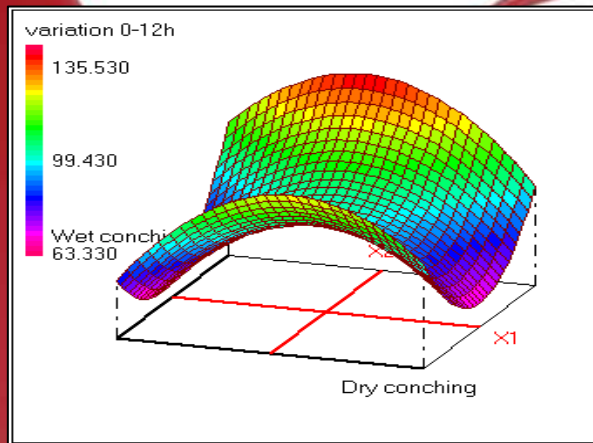
C. Vermeulen (05)
S. Bailly, J. Gros, Tran H.

C. Scholtes

NEW QUESTIONS : (CONSALIM, RW)

impact of organic raw materials, special malts, bottle refermentation, dry hopping...

Fundamental research in PhD theses → Discovery of resveratrol in cocoa (C. Counet 04) and hop (V. Jerkovic 07)



2008 • Louvain-la-Neuve
7 - 10 September

<http://www.declerckchair.com>

THE **POLYPHENOL** PARADOX
IN ALCOHOLIC BEVERAGES
A beer and wine paradox ?

CHAIR
J. DE CLERCK

M. BEGHERI
E. GLUYT
L. BELLESTE
V. DIEYONER
M. PASCAL
S. DE ROELINCK
S. GRIBONVARD
A. VERBRET
D. LAMUELA MONTAUDO
Ph. JAMMET
M. KENTIL
V. JERKOVIC

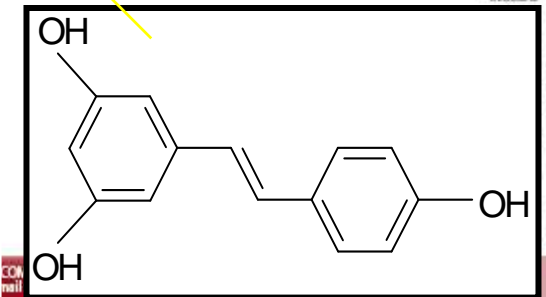
Applied research →

Patent n° EP1894473 : Method to increase the antioxidant activity of chocolate (with Puratos)

Patent n° WO2008 068344 : Spent hop products, their content in stilbenes and their use as antioxidant for comestible production (with AB-Inbev)

Service for industrials (CRQMB platform) →

Malt and beer analyses, yeast propagation, consultancy for improving the process, microbrewery, ..



CHAIR
J. DE CLERCK

-
-
-

QUALITY CONTROL AND ASSISTANCE FOR INDUSTRIALS

in more details ...

QUALITY CONTROL AND ASSISTANCE FOR INDUSTRIALS

New staff : +32 10 47....

Sonia Collin,
Marc Maudoux,
Sabrina Nizet 3594,
Paul Riguelle

Sonia Collin,
Marc Maudoux,
Paul Riguelle
8764

A. Beer and other fermented beverages

B. Yeast

CRQMB-INBR

C. Malt and Mycotoxins

D. Brewing Technology

Etienne Bodart 8764,
Sonia Collin,
Laurent Mélotte

Marc Maudoux 8764,
Sonia Collin,
Laurent Mélotte

ANALYTICAL POTENTIAL

- **SENSORIAL PLATFORM :**

- GC-Olfactometry
- GC-mass spectrometry
- 9 GC including static HS, Purge and Trap, SPME, on column&split/splitless AND FID, NPD, PFPD, Sievers)
- 6 HPLC including absorption UV, diode array, fluorescence, refractometer AND HPLC/MSⁿ : ESI & APCI
- Semi-preparative HPLC
- Antioxidant assays (AAPH, ..)
- Sensorial analysis (10 pers.)

- **BREWING TECHNOLOGY PLATFORM :**

- Fermentors/propagators : 300 & 30 L
- Beer production : 50L micro-brewery, 200l mash filter, continuous centrifugation
- **Yeast library**
- -80°C revco, microscopes, PCR, ultracentrifugators , ..

