



## Different phytochemical compositions of propolis samples collected in Ivory Coast, Africa

Submitted by Séverine Boisard on Mon, 01/16/2017 - 11:04

Titre Different phytochemical compositions of propolis samples collected in Ivory Coast, Africa

Type de publication Communication

Type Communication par affiche dans un congrès

Année 2015

Langue Anglais

Date du colloque 15-17/07 2015

Titre du colloque 2nd AFERP-STOLON International Symposium

Auteur Boisard, Séverine [1], Le Ray, Anne-Marie [2], Aumond, Marie-Christine [3], Blanchard, Patricia [4], Derbré, Séverine [5], Iritié, Bruno Marcel [6], Richomme, Pascal [7]

Pays France

Ville Lyon

Résumé en anglais Propolis, or bee glue, is a natural resinous hive product collected by honeybees from buds and exudates of various trees and plants. Mixed with beeswax and salivary enzymes, it is used to fill in cracks and holes in the hive as well as a chemical weapon against intruders. It is well known that the chemical composition of propolis depends on the flora at the site of collection. Therefore propolis are generally classified as "poplar-type" in temperate zones and "green Brazilian", "Clusia", "Macaranga" as well as Mediterranean-type in tropical zones [1]. The aim of this work was i) to study the phytochemical composition of EtOH extracts from six batches collected in different regions of Ivory Coast, using GC/MS and HPLC/UV/MSn profilings followed, when necessary, by 1D and 2D NMR analysis, and ii) to evaluate their antioxidant and anti-AGEs activities using respectively DPPH and BSA assays. One of the six propolis samples, originating from Katiola, exhibited an unusual chemical composition (flavonoids and phenolic acids derivatives) associated to a poplar-type propolis [2]. The EtOH extract showed a high antioxidant activity of  $1066 \pm 15$   $\mu\text{mol TE/g}$  (control: rosemary EtOH extract at  $591 \pm 21$   $\mu\text{mol TE/g}$ ) and an excellent anti-AGEs activity with an  $\text{IC}_{50}$  of 20  $\mu\text{g/mL}$  (control: *Styphnolobium japonicum* EtOH extract at 90  $\mu\text{g/mL}$ ). The other propolis extracts exhibited, as expected for tropical type samples, triterpenoids as major constituents accompanied with minor polyphenols such as prenylated flavanones, chlorogenic acid, or biflorin. Therefore the composition of the propolis collected in Katiola appears as quite unusual and we are now working on the analysis of its botanical origin.

URL de la notice <http://okina.univ-angers.fr/publications/ua15417> [8]

Lien vers le document en ligne <http://www.ecologiemicrobiennelyon.fr/spip.php?article907&lang=en> [9]

---

## Liens

- [1] <http://okina.univ-angers.fr/severine.boisard/publications>
- [2] <http://okina.univ-angers.fr/a.richomme/publications>
- [3] <http://okina.univ-angers.fr/mariechristine.aumond/publications>
- [4] <http://okina.univ-angers.fr/patricia.planchenault/publications>
- [5] <http://okina.univ-angers.fr/severine.derbre/publications>
- [6] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=25833>
- [7] <http://okina.univ-angers.fr/p.richomme/publications>
- [8] <http://okina.univ-angers.fr/publications/ua15417>
- [9] <http://www.ecologiemicrobiennelyon.fr/spip.php?article907&lang=en>

Publié sur *Okina* (<http://okina.univ-angers.fr>)