



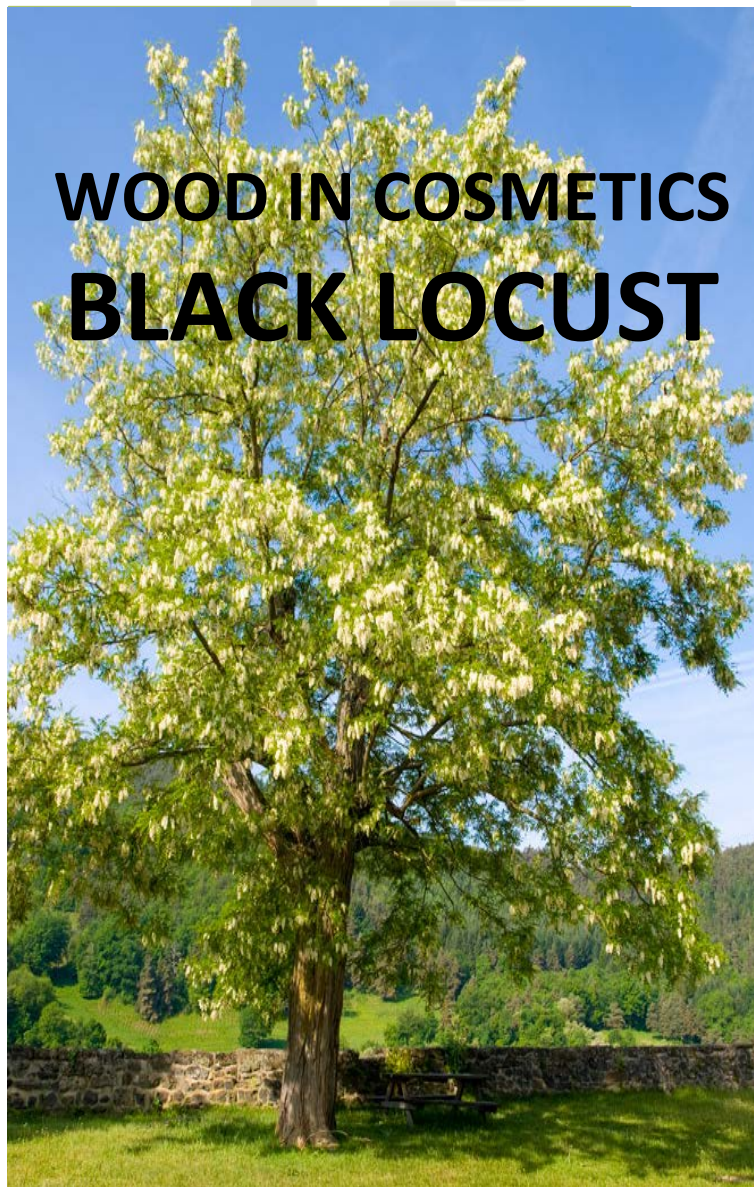
ValRob project - *Robinia pseudoacacia* wood valorisation : Characterization and production of biomolecules of cosmetic interest from local wood

Christian Breton (*INRA - Val de Loire - Orléans - UAGPF*)



WOOD IN COSMETICS

BLACK LOCUST



WOOD = Biomass



Oakscan™

ValRob :



Heartwood

BIOMOLECULES

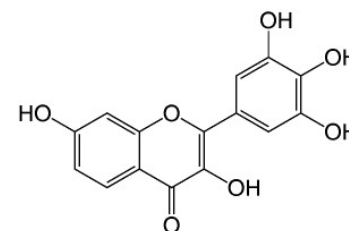


COSMETIC USES

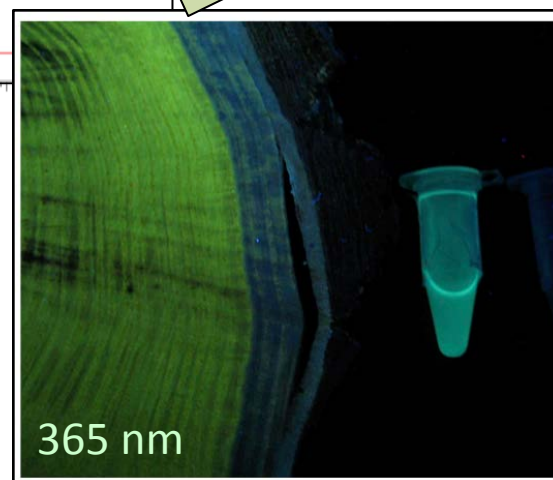
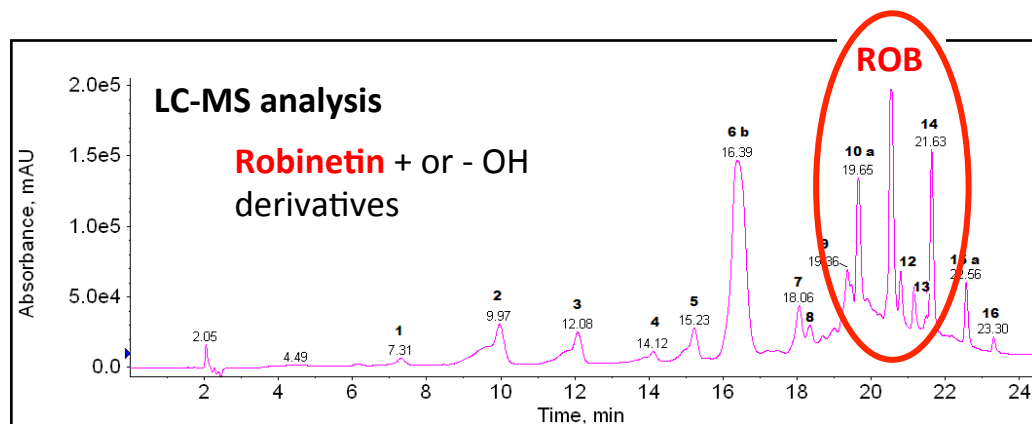
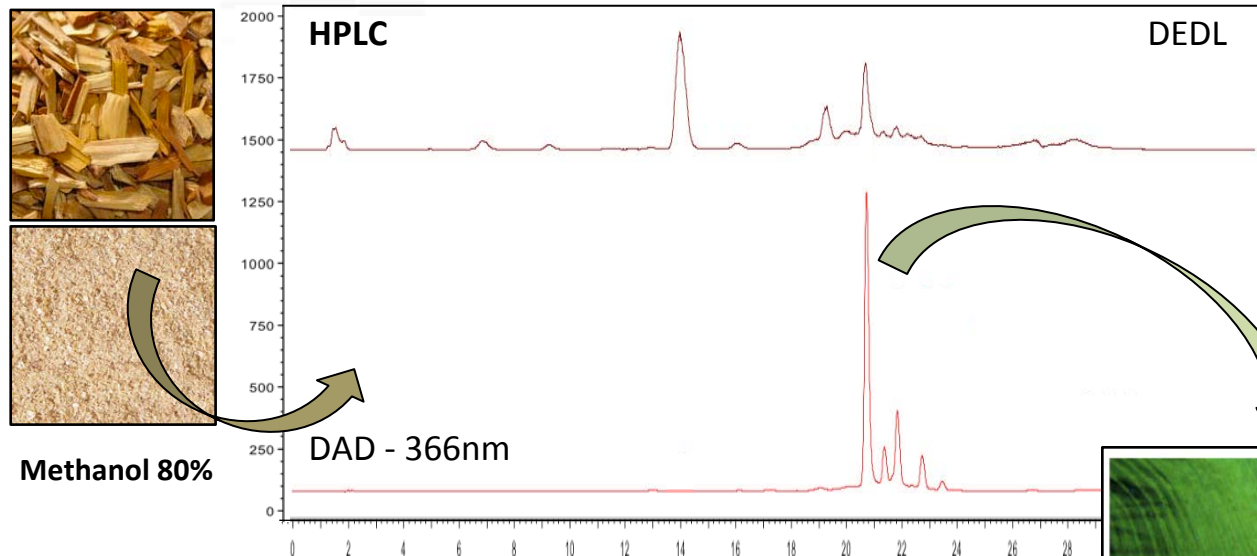
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COSMINNOV
COSMETIC INNOVATION DAYS

1) Identification of the fluorescent molecule :



Robinetin



2) Extraction process :

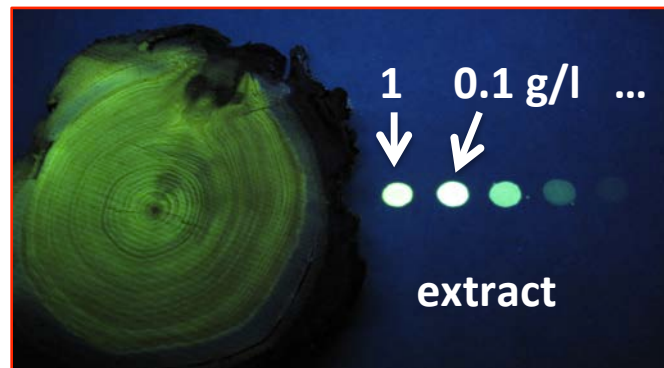
- Ethanol based
- Wood/solvent ratio
- Maceration temperature and time (depends on wood particle size but no degradation of robinetin up to 25h)



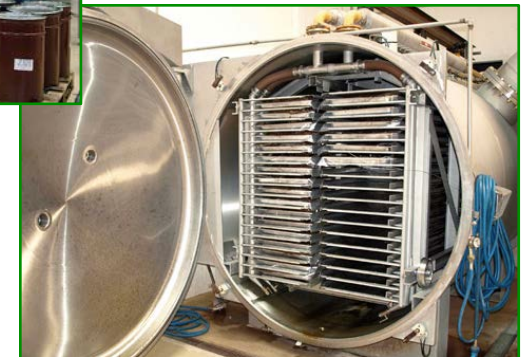
**Concentrated
Robinetin**

Lab pilot extraction with 3.2 kg of wood :

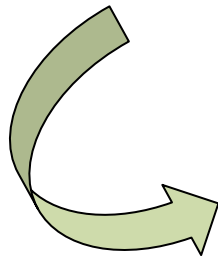
- ⇒ 121g dw of extract (**Robinetin 34%**)
- ⇒ Yellow and highly fluorescent
- ⇒ **Estimated yield : 8.5g Robinetin/wood kg (dw)**



3) Industrial transfer : Alban Muller International



- In progress ...
 - 2 trials with about 50kg of wood
- => Concentrated extracts : 17 and 22% of Robinetin (dw)**



- **Cost of production** (from forest to extract)
- **fluorescent applications testing**
- + **other properties**

CONCLUSIONS :

- Robinetin production is getting validated at the industrial level
- Integrated to the local wood industrial sector (resource availability)

MANY APPLICATIONS :

Extracts and wood powder

Formulation (make-up, body-painting, hair dye) + **packaging, accessories** (T-shirts...) and store decoration...

Hair dye

Invisible tracer

*L'essence de l'arbre
est dans son cœur*

« Tree spirit
is in its heart »

COSMETICS AND BEYOND ...

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Céline B. - Liliane B.



THANK YOU

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COSMETIC INNOVATION DAYS

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