

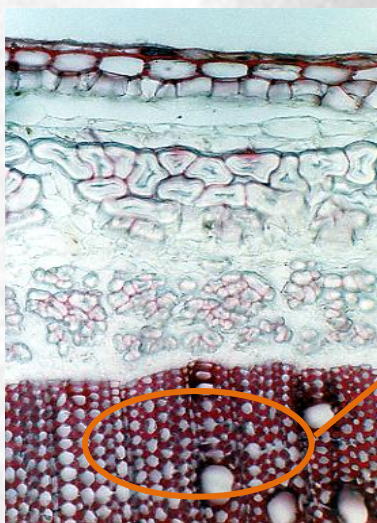
***Analysis of surface properties of both hemp fibers and wood like fibers***

**Jean-Eudes Maigret, Bernard Kurek**

*UMR 614, INRA-URCA, Fractionnement des Agroressources et Environnement, Reims, France*

# Hemp Samples

Hemp fibers (L<3 mm)



B. Chabbert, INRA

Wood like fibers



- Raw
- Heat treated

- Raw
- Enzymatic Hydrolysis
- Acid Hydrolysis (H<sub>2</sub>SO<sub>4</sub>) without washing
- Acid Hydrolysis (H<sub>2</sub>SO<sub>4</sub>) with washing

## Experimental Set Up

### Sessile Drop Test

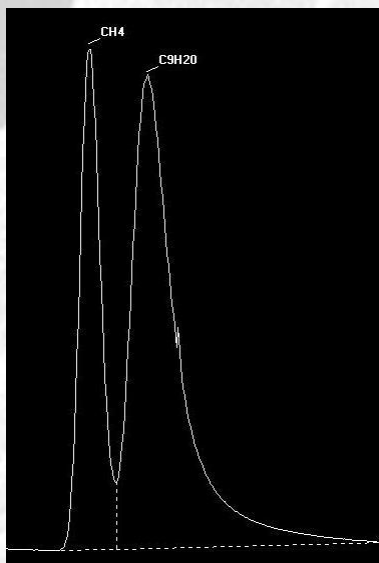


- Measure of the dispersive component of the surface energy ( $\gamma_s^D$ )
- Measure of the specific component of the surface energy ( $\gamma_s^{Spé}$ )

- Method very dependent on experimental conditions

- Necessity to grind the sample

### Inverse Gaz Chromatography



- Measure of the dispersive component of the surface energy ( $\gamma_s^D$ )
- Measure of the acid and basic parameters ( $K_A$  and  $K_D$ ) of the surface

- No sample preparation

- Independent of the size of the sample

***Analysis of surface properties of both hemp fibers and wood like fibers***

**Jean-Eudes Maigret, Bernard Kurek**

*UMR 614, INRA-URCA, Fractionnement des Agroressources et Environnement, Reims, France*