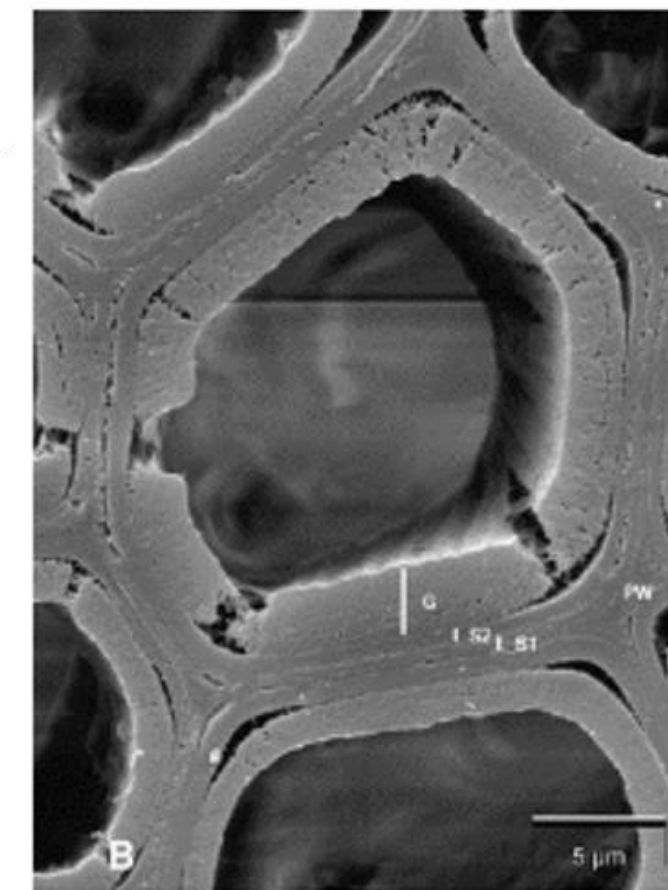
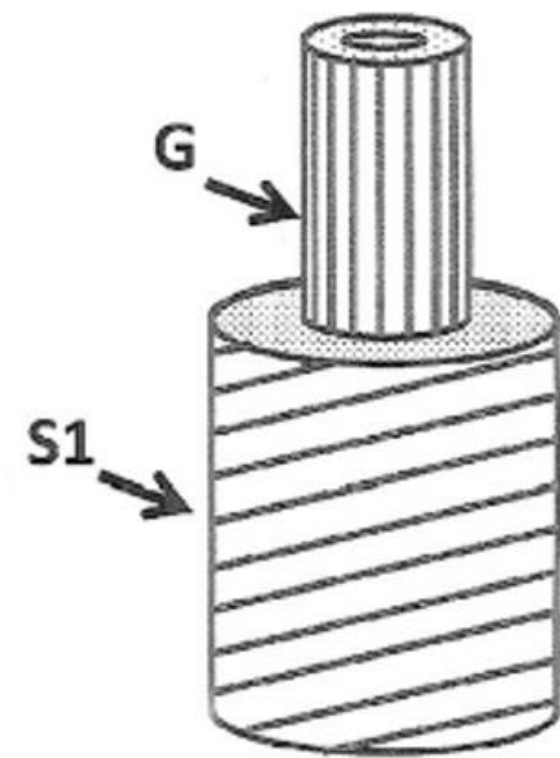
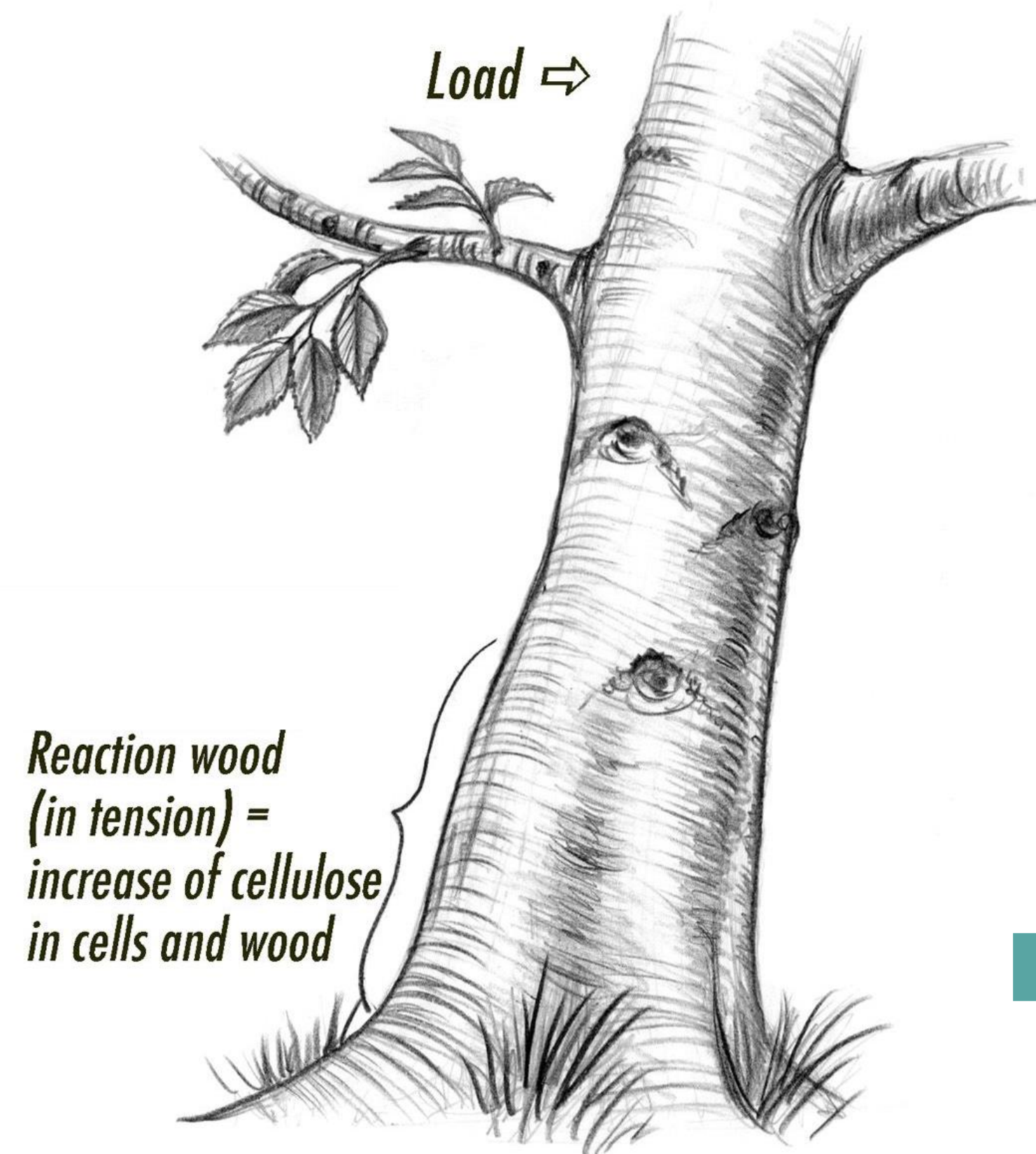
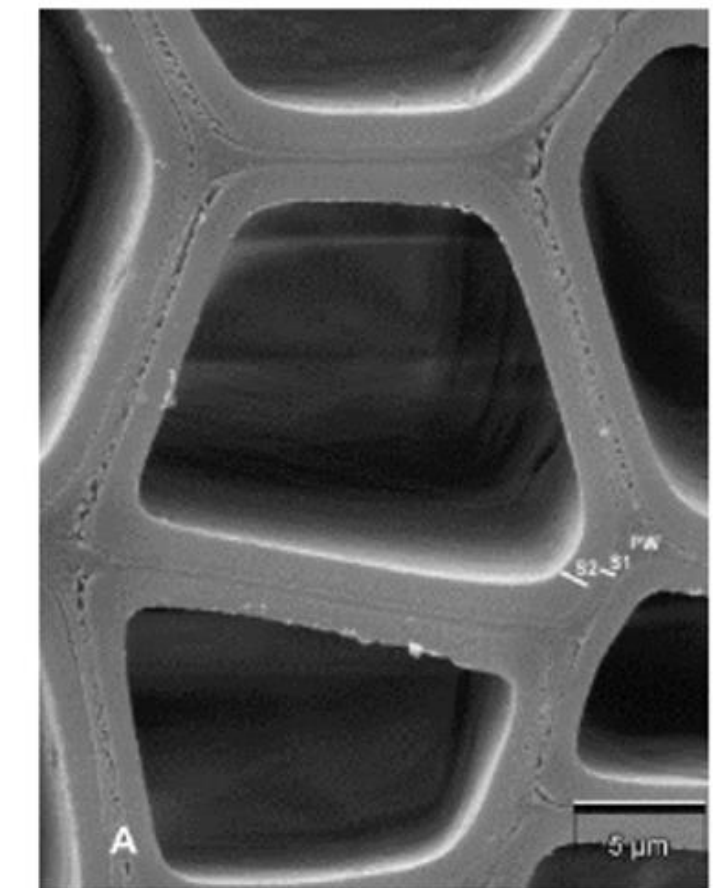
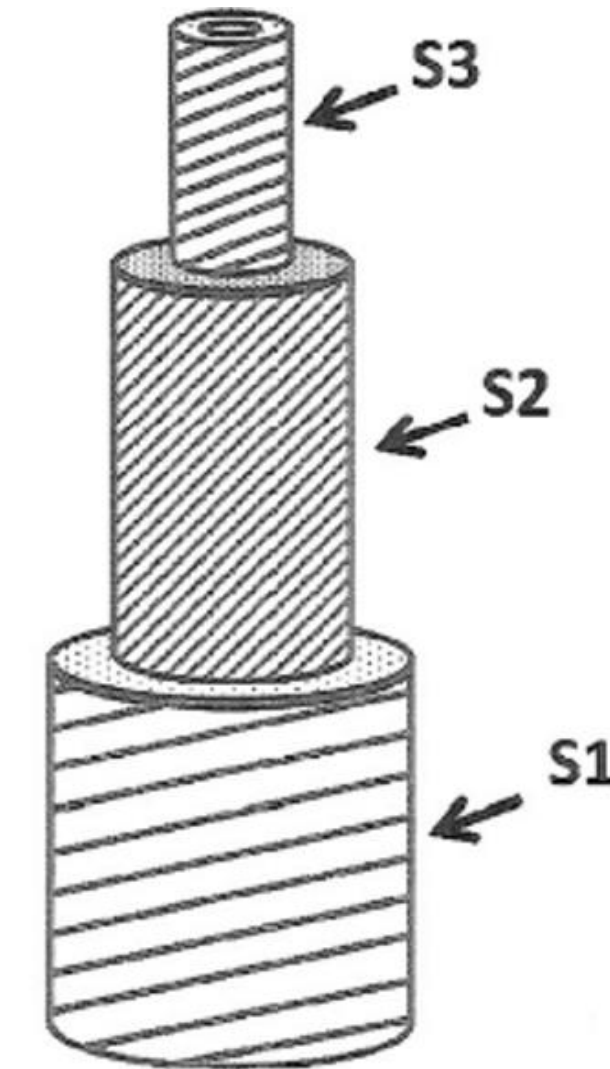


# Wood morphogenesis under abiotic stress at the nanoscale

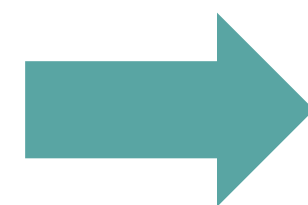
A. C. NORMAND, A. M. CHARRIER, R. H. FARAH, B. H. DAVISON, A. PASSIAN, A. L. LEREU



Tension wood



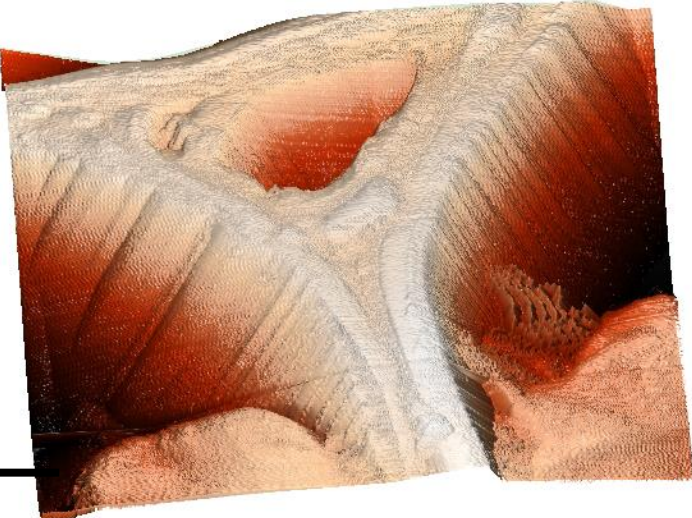
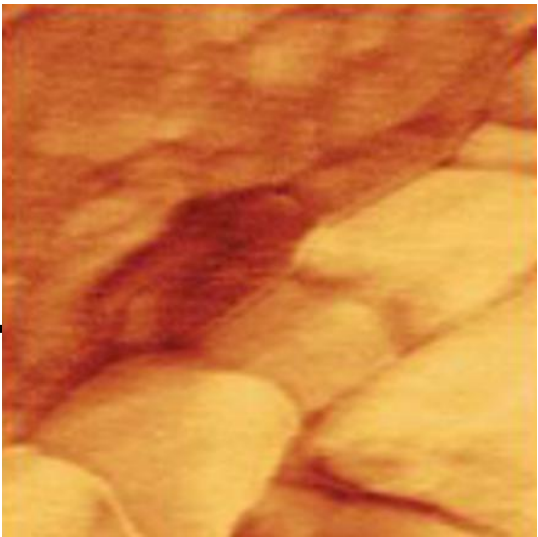
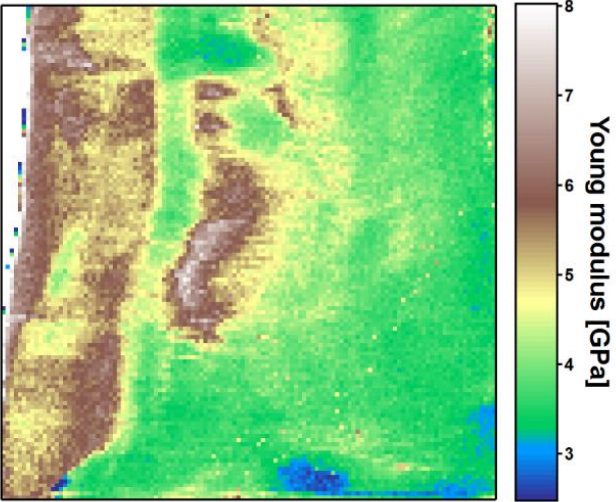
Normal wood



Établir une corrélation entre la structure, la composition chimique, et les propriétés mécaniques des parois de cellules à l'échelle nano.



Utilisation de techniques diverses pour cartographier les propriétés :

| PLANT PROPERTY        | MAPPING TECHNIQUE                 |                                                                                       |
|-----------------------|-----------------------------------|---------------------------------------------------------------------------------------|
| STRUCTURE             | SCANNING ELECTRON MISCROSCOPY     |    |
|                       | ATOMIC FORCE MICROSCOPY           |                                                                                       |
| CHEMICAL COMPOSITION  | TOF – SIMS                        |   |
|                       | CONFOCAL RAMAN MICROSCOPY         |                                                                                       |
|                       | MODE-SYNTHETIZED AFM              |                                                                                       |
| MECHANICAL PROPERTIES | HYBRID PHOTONIC FORCE MICROSCOPY  |  |
|                       | QUANTITATIVE FORCE-VOLUME MAPPING |                                                                                       |

