Supplementary of

Termites: The Marvelous Cladder in Nature Using Nanocellulose-Reinforced Lignin/Sand Composite: A New Discovery

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This PDF contains:

Section 1. Preparation of the experimental samples.

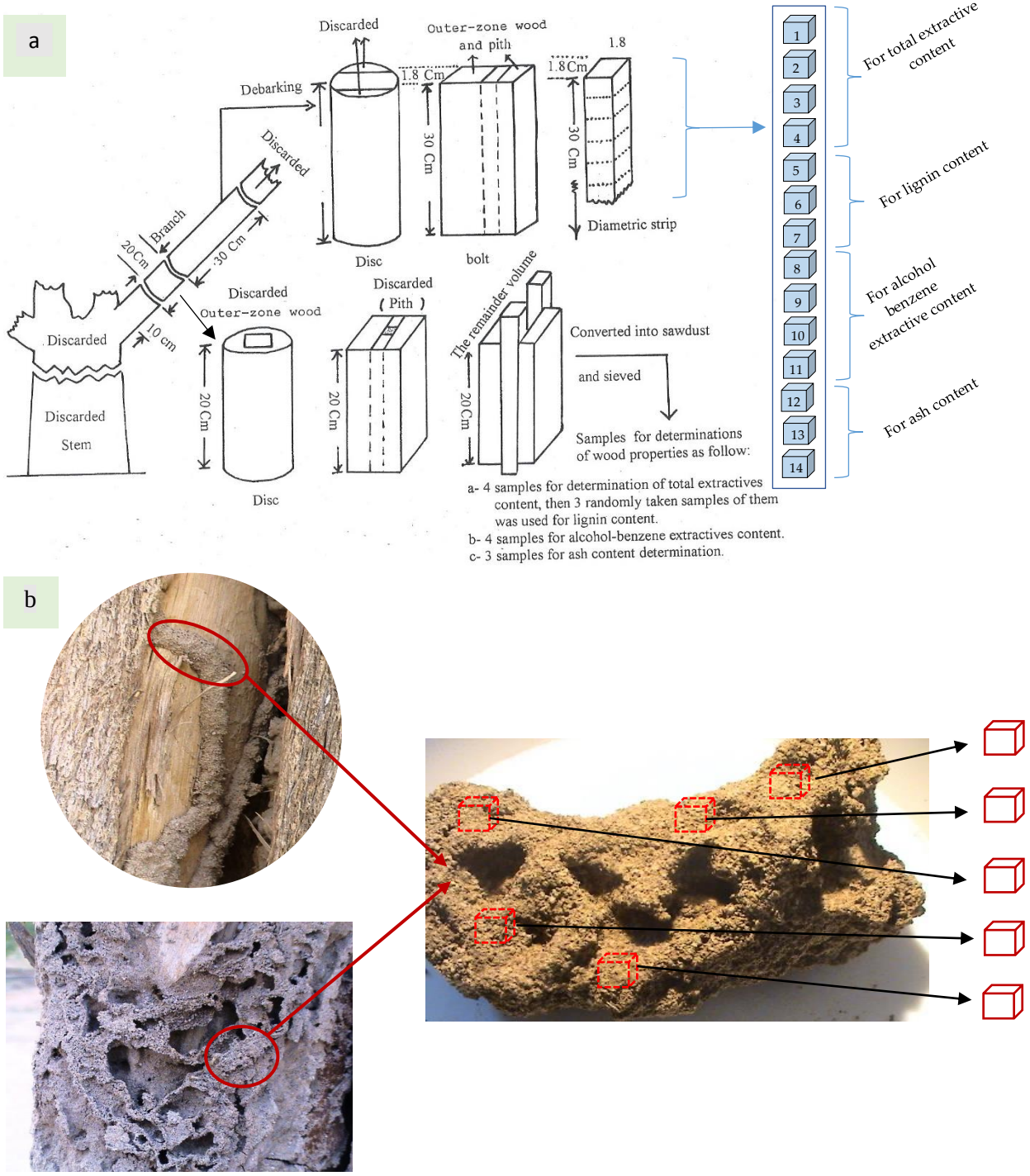


Figure S1. Schematic representation of the procedure used for preparation of the experimental samples: a) healthy wood (W_h), and b) Termite nest skeleton (TNS) of the six tree species.

Section S2. Technical machinery and glassware used in the present investigation

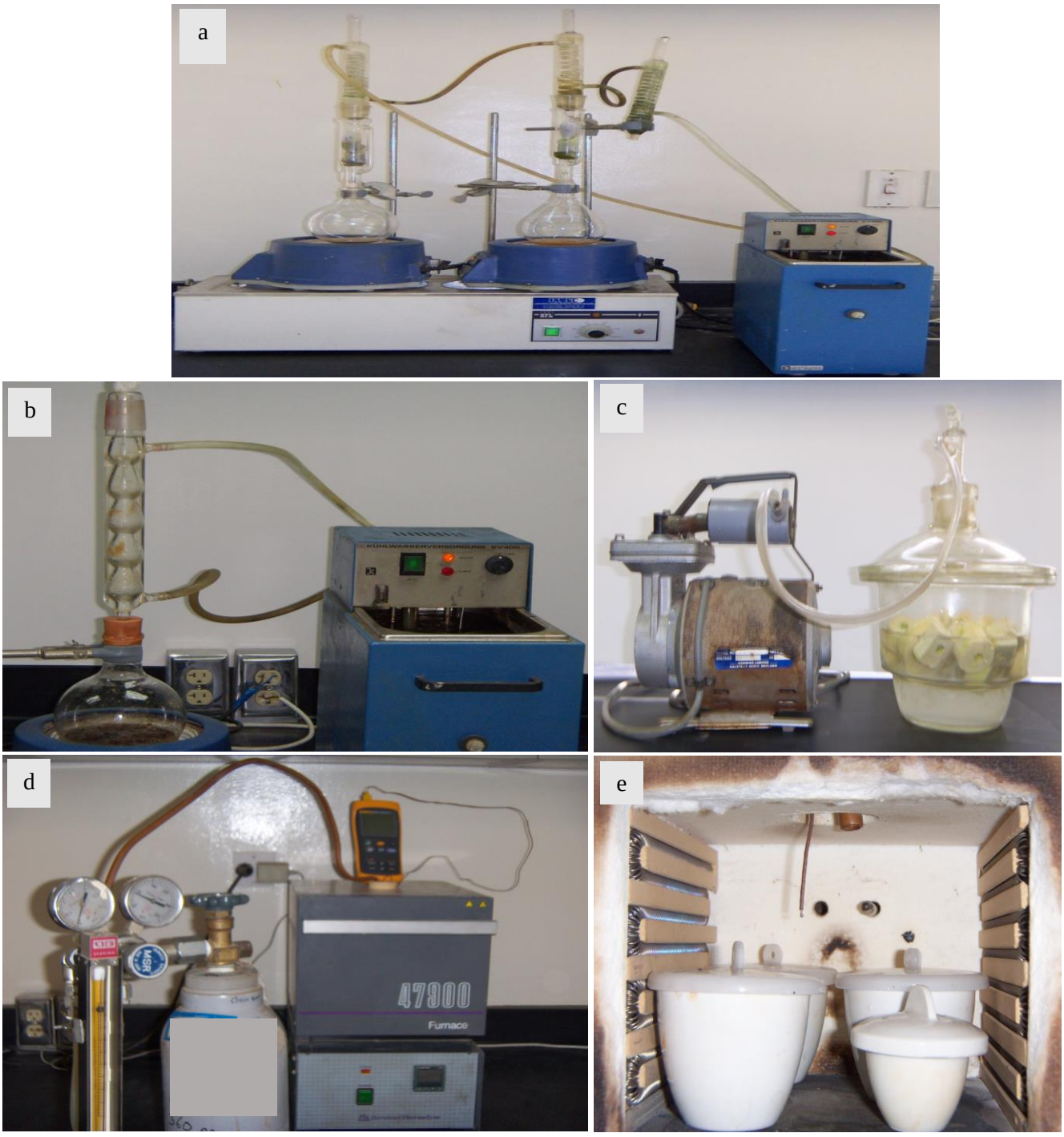
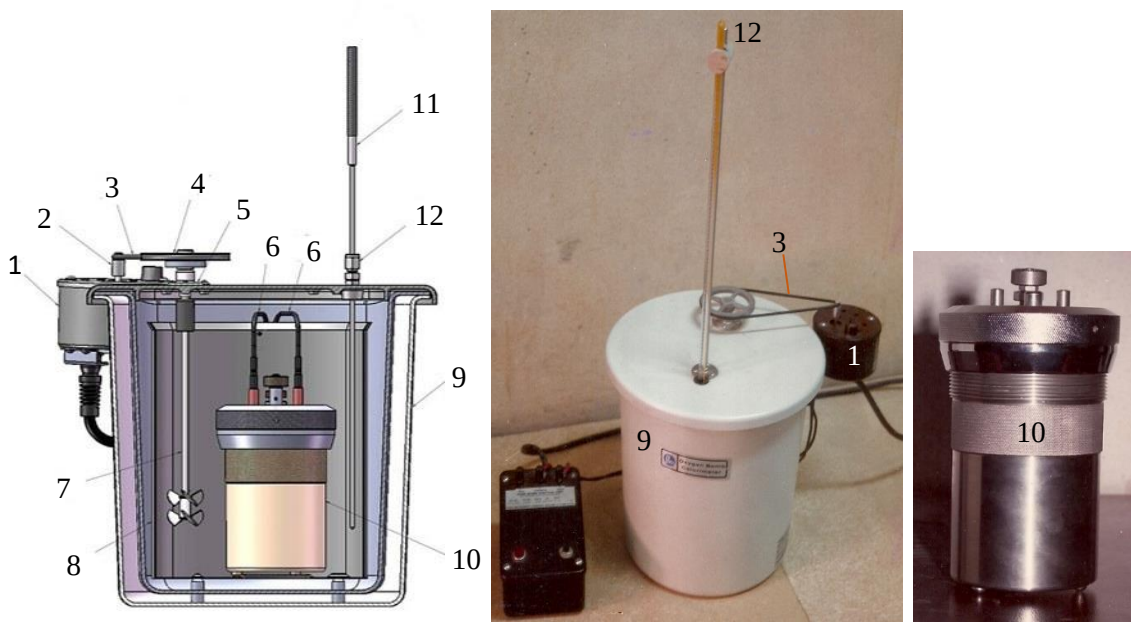


Figure S2. Technical procedures, machinery and/or glassware used for characterization of the each of the healthy wood (W_h) and/or termite nest skeleton (TNS): a) Soxhlet apparatus for extracting total extractives content (TEC) and alcohol benzene extractives (ABE), b) Refluxed Pyrex apparatus for chemical separation of Klason lignin content (KLC), c) Vacuum pump-assisted water-saturation of the W_h, d) Electric muffle furnace used for determination of ash content of W_h, and e) Porcelain crucibles containing W_h samples to be ashed within the muffle furnace.

Section S3. Determination of gross heat of combustion (GHC).

a

1- Motor Assembly with pulley, 230V 50/60 Hz.	7- Stirrer shaft with impeller.
2- Motor pulley.	8- Oval bucket.
3- Stirrer drive belt.	9- Calorimeter jacket with cover.
4- Stirrer pulley.	10- Oxygen combustion vessel.
5- Stirrer bearing assembly.	11- Male connector.
6- Ignition wire.	12-Thermometer.



b

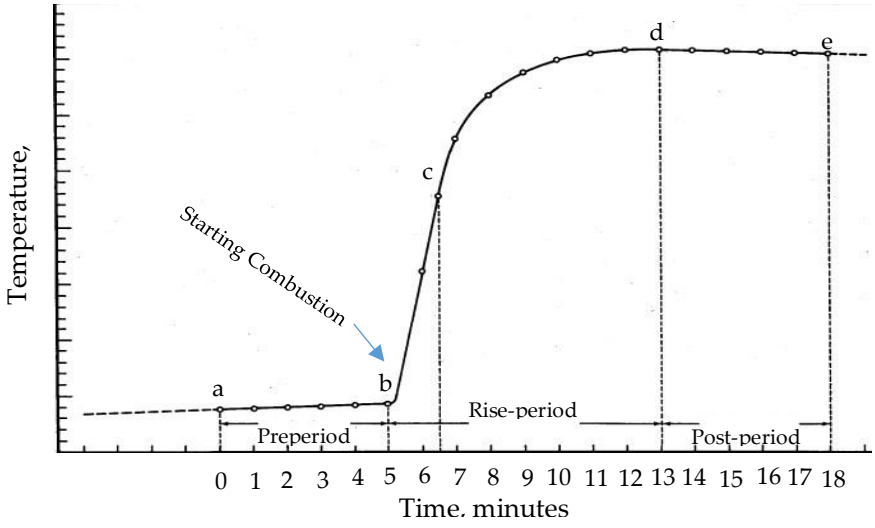


Figure S3. Gross heat of combustion determination (GHC): a) Parts of the oxygen bomb calorimeter used for measuring GHC of the healthy wood and the termite nest skeletons (TNS), and b) Typical temperature rising curve of a woody sample.