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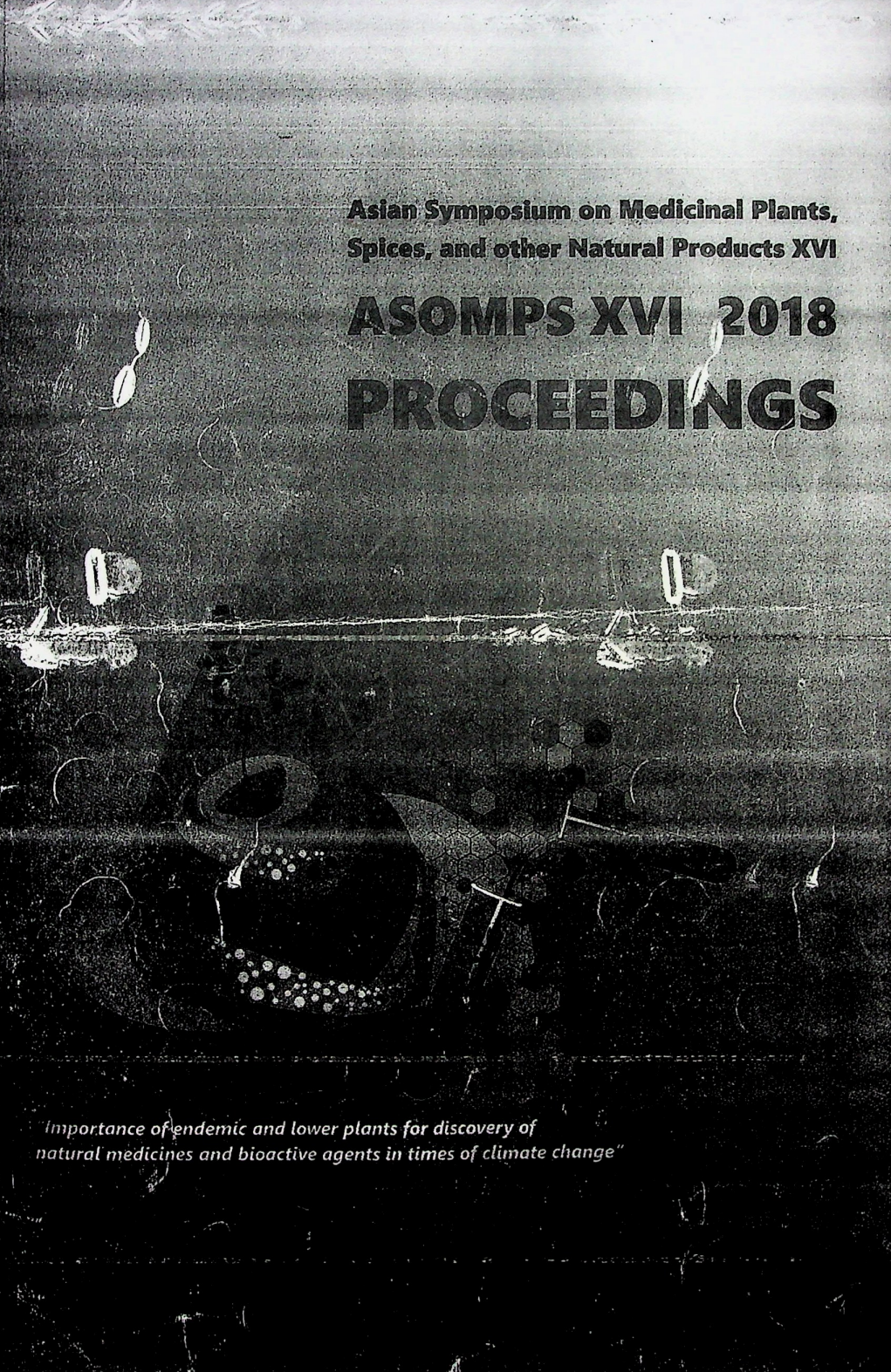

"Importance of endemic and lower plants for discovery of natural medicines and bioactive agents in times of climate change"

Anti bacterial screening and anatomy of the wood of *Bombax ceiba*

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*Bombaxceiba*is a traditional medicinal plant belonging to family widely used in Siddha preparations in Sri Lanka since ancient times. Review of literature revealed less work on this plant. Before recommending it for clinical use scientifically we need to test it for antibacterial activity. This was done by agar well diffusion method. Bacteria used were *E-coli, Proteus vulgaris, Klebsiella sp, Staphyllococcus aureus, Pseudomonas aeruginosa and Bacillus circulans.* This study revealed that some bacteria were inhibited differently (7 ±00 to 30 ± 00 mm) and some were not at all inhibited by the extracts used. Dried powder extracted with ethanol and water showed comparatively higher inhibition against test organisms than water and ethanol extracts of fresh parts of stem. But *Proteus vulgaris* was not inhibited by water extract of both fresh and dried stem powder. Ethanol extract of dried powder showed more or less equal inhibition like streptomycin. This varies from (15 ±00 to 24 ± 00 mm). Dried powder extracted with ethanol and water showed comparatively higher inhibition against test organisms and the results obtained were found to be higher than that with streptomycin for most of the bacteria. This may be due to the synergistic effect of the bio active compounds present in the crude extract. Control experiment indicated that the mixture of DMSO and acetone did not affect the growth of test pathogens. We used this mixture of Acetone in 1:1 ratio to dissolved the crude extract. Because of the oily nature of DMSO this prevents the vaporization of extract. DMSO:Acetone (1:1)mixture as control did not affect the growth of test pathogens. This study indicates the presence of active ingredients in the crude extracts. Water and ethanol extract of *Bombax ceiba* stem dried powder could be used for further isolation and purification of novel bio active molecules which may be used in siddha and other drug preparations.Anatomical studies were done using the stereo microscope. The wood is usually white/pale pink turning pale yellow on exposure. Further studies are required to do a comparative analysis between different species.

Keywords: *Bombax, Antibacterial, Anatomy, Inhibition*