

6th International Conference and Exhibition on

Traditional & Alternative Medicine

September 14-16, 2016 Amsterdam, Netherlands

Phenolic contents, antioxidant activity and spectroscopic characteristics of *Pterocarpus angolensis* DC stem bark fractions

Afsatou Ndama Traoré, Anokwuru C P, Sigidi M T, Zininga T, Tshisikawe M P, Shonhai A, Ramaite I D I and Potgieter N
University of Venda, South Africa

Oxidative stress has been implicated in the damage of biological molecules resulting in aging and diseases such as Alzheimer, cancer, diabetes, cardiovascular disorders. The study aimed at determining the phenolic contents and antioxidant activities of *Pterocarpus angolensis* crude extracts and fractions. The crude extract and fractions of *P. angolensis* were evaluated for their phenolic contents. UV-Visible and FT-IR were used to assess the spectroscopic characteristics of the fractions obtained. The antioxidant activities were evaluated using 2, 2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging and reducing power assays. We obtained 7 fractions from the crude extracts after elution with various solvents on silica gel 60. The results showed that fraction two (PaF2a) displayed the highest DPPH radical scavenging activity (18.7 µg/ml) but the lowest phenolic content while fraction three (PaF2b) exhibited the highest reducing power activity (44.28 µg/ml) with high phenolic content. Spectroscopic details showed that PaF2a had maximum absorbance at 287.1 nm while PaF2b displayed maximum absorbance at 288.2 nm. The infra-red spectroscopy showed a slight difference in the intensity of the spectra of PaF2a and PaF2b. This study has shown that PaF2a and PaF2b are the antioxidant rich fractions of *P. angolensis* stem bark and exhibited different spectroscopic characteristics.

Biography

Afsatou Ndama Traoré holds an MSc and a PhD in Biochemistry from the University of Johannesburg after undergraduate studies at the University Joseph Fourier (Grenoble I) in France. Her PhD research focused on the effect of iron overload on co-infection with HIV and TB – *in vitro*. This was a continuity of a large broader study, which had several phases looking at factors contributing to HIV infectivity as well as the development of an effective vaccine. Her research interest is the study of immunological responses to plants and infections.

afsatou.traore@univen.ac.za

Notes: