

International Meeting on
**WOMEN'S HEALTH, GYNECOLOGY,
OBSTETRICS AND BREAST CANCER 2018**
November 19-20, 2018 Sydney, Australia

Comparative phytochemical constituents of *Leucaena leucocephala* (Lam.) leaves, fruits, stem barks and wood branches grown in Egypt using GC-MS method coupled with multivariate statistical approaches

Mohamed Zaky Zayed and Sobhy Sallam
Alexandria University, Egypt

This work for the first time identified the phytochemical constituents of leaves, fruits, stem barks and wood branches extracted from the tree pruning wastes of *Leucaena leucocephala* (Lam.) de Wit. Grown in Egypt, showing 49, 29, 34 and 27 phytocomponents, respectively, as assayed by Gas chromatograph-Mass Spectroscopy (GC-MS) analysis. The major components of leaves were 1,2-benzenedicarboxylic acid, mono (2-ethylhexyl) ester (17.67%), betulin (15.68%), lupeol (14.67%), androstan-17-one,3-ethyl-3-hydroxy-, (5 α)- (12.34%), 9,12,15-octadecatrienoic acid, methyl ester, (Z,Z,Z)- (11.63%), betamethasone (9.73%), and α -sitosterol (9.08). The major phyto components of fruits were α -sitosterol (55.66%), 3 β -hydroxy-5-cholen-24-oic acid (48.70%), 1,2-benzenedicarboxylic acid, mono(2-ethylhexyl) ester (42.86%), lupeol (29.33%), betulin (15.76%), stigmaterol (12.83%), and campesterol (7.55%). The major phyto components of stem barks were 1,2-benzenedicarboxylic acid, di-isooctyl ester (65.73%), α -sitosterol (27.16%), betulin (22.06%), lupeol (21.08%) and 9,12-octadecadienoic acid (Z,Z)-, methyl ester (8.81%). Wood branches contained α -sitosterol (60.09%), 1,2-benzenedicarboxylic acid, mono (2-ethylhexyl) ester (47.18%), lupeol (22.53%), campesterol (15.64%), and stigmaterol (14.09%). Most identified compounds have been reported to possess important biological activities, like antimicrobial, anti-inflammatory, anticancer, anti-arthritis, antioxidant, and anti-diabetic activities, etc. The four constituents of *L. leucocephala* were statistically independent in these phyto components. The phyto components in five solvents were mixed in describing the four traits. These traits of *L. leucocephala* are potential bio-resources for phytopharm.

Biography

Mohamed Zaky Zayed is a Lecturer and Researcher of the Department of Forestry and Wood Technology at Alexandria University, Alexandria, Egypt. He has worked as a Visiting Associate Professor at South China University, China. He has completed his Bachelor's degree from Alexandria University, Egypt in Agriculture Science and Masters in Forestry from the Alexandria University, Egypt. He has completed his PhD in Forestry from University Malaysia Sarawak, Sarawak, Malaysia. He has worked as an Assistant Lecturer at the Department of Forestry and Wood Technology at Alexandria University, Egypt.

zaky_tree@yahoo.com

Notes: