

ABSTRACT

Naringi crenulata is continuously used as a traditional facial cosmetics in Myanmar and Northern Thailand for sunscreen, anti – acne, anti – aging and whitening effects. However, scientific evidence relating to these efficacies is rarely presented in addition to difference of the part used that varied by region. Therefore, comparative amount of skin whitening agent, Arbutin, in bark, stem wood, leaf and fruit of *N. crenulata* was studied. The powder of air dried bark, stem wood and leaf were separately extracted similar to its fresh ripped fruit by maceration in MeOH (24 hr, 150 rpm) and reflux in water for 1 hr. The crude extracts were HPLC analyzed based on HPLC fingerprint of *N. crenulata* that successively eluted with a solvent system consisting of acetonitrile and 3% acetic acid (10:90 at t=0 and 55:45 at t = 45 min). Arbutin was found higher in water extract than MeOH extract both in bark (0.223 ± 0.0180 g/kg and 0.183 ± 0.0028 g/kg) and stem wood (0.472 ± 0.0928 g/kg and 0.195 ± 0.0030 g/kg). In similar, Arbutin content in leaf water extract was found higher than the MeOH extract (10.748 ± 0.2263 g/kg and 2.426 ± 0.0050 g/kg) as well as the fruit extract (8.2417 ± 0.1296 g/kg and 0.293 ± 0.0106 g/kg). The traditionally used is, therefore, scientifically confirmed and promising for further development of natural whitening cosmetics.

Keywords: *Naringi crenulata/Hesperethusa crenulata*/Arbutin/whitening agent/natural whitening cosmetics