

Abstract

The dried seed kernels of *Camellia sinensis* (collected from Pan, Chiang Rai; Doi Saked, Chiang Mai and Muang, Nan) were extracted with hexane by using Soxhlet extraction. After removal of solvent under reduced pressure, the light yellow oils were obtained in the percentage yield range of 21-24. The screw pressing was also applied to extract tea oil from the dried seed kernels of *C. sinensis*, and yielded extra virgin oil as yellowish oil with the percentage yield of 1.92 - 2.55. The extracted oils were identified their compositions by using GC-MS technique. The result shown that the hexane extracted oils composed of hexadecanoic acid (4.89-6.09 %), 9-octadecenoic acid (20.73-27.15%), 9,12-octadecadienoic acid (3.29-7.83%), 9-octadecenal (30.42-36.12%), and 9,12-octadecadienal (2.15-4.28%). Moreover chemical compositions of the extra virgin oils were analyzed and found to compose of hexadecanoic acid (9.48-10.84 %), 9-octadecenoic acid (21.96-24.94%), 9,12-octadecadienoic acid (5.02-6.21%), 9-octadecenal (22.21-30.23%), and 9,12-octadecadienal (4.10-6.46%). The oils were evaluated for biological activities such as antibacterial activities, antifungal activities, antioxidant activities, antitumors, antituberculosis, anti-inflammatory, and antivirals. The oils were found that they could not exhibit the bioactivities.