International Journal of ChemTech Research
CODEN(USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.10 No.6, pp 727-735,2017

Chemical characterization and antioxidant activity of a new potential functional ingredient of coffee silverskinextracts

[1]*AskalMaimulyanti and [2]Anton RestuPrihadi

[1]Department of Analytical Chemistry, Politeknik AKA Bogor, Jl.Pangeran Sogiri No. 283 Tanah Baru, Bogor, Indonesia (Email: Askal_m@yahoo.com)
[2]Department ofFood IndustralQuality Assurance, Politeknik AKA Bogor, Jl.Pangeran Sogiri No. 283 Tanah Baru, Bogor, Indonesia

Abstract: The coffee industry still generates large amount of waste representing serious enviromental problem. Coffeesilverskin, a byproduct of roasted coffee beans, might be an important source of several bioactive compounds such as dietary fiber, phenolic content, caffeine, chlorogenic acid, tannic acid, and antioxidant activity. The compositions of coffee silverskin extract were investigated in this study. Extraction was using water and ethanol solvent with maceration method.Thepercentage yield of extract from coffee silverskin in water and ethanol solvent are 16.97% and 2.65% respectively. The result showed that this material in water extract has 7.78 % of phenolic content, 0.14 % ofchlorogenic acid, 3.12 % of caffeine, 4.15 % tannic acid, 23.82% of dietary fiberandantioxidant activity with IC_{50} = 52, 12 µg/ml. Extract of ethanol showed 0,62 % of phenolic content, 0,33 % of chlorogenic acid , 3.49 % of caffeine, 0.6 % of tannic acid, 8,48 % of dietary fiber andantioxidant activity with IC_{50} 13,29 µg/ml. The composition of extract from coffee silverskin can be used as ingredient for functional food.
Key words: Coffeesilverskin, antioxidant, chemical ingredients.

*****