

A Study on Antioxidant Status and Phytochemical Analysis of Four Indian Medicinal Plants

Himanshu Dhanda¹ and Dr. Nupur Sinha²

^{1,2}Amity University, Sector 125, Noida, Uttar Pradesh 201313
E-mail: ¹himanshu.dhanda.159@gmail.com, ²nsinha@amity.edu

Abstract—This study is aimed at investigating the comparative antioxidant potential in methanolic extracts of *Psidium guajava* (leaves), *Curcuma longa* (rhizome), *Cinnamomum verum* (bark) and *Rhapis excels* (leaves). The antioxidant parameters included are catalase, GST, GSH, DPPH and MDA. Phytochemical analysis included alkaloid, flavonoid, saponin, tannin, phenolic compounds, phytosterol and carbohydrates. Results demonstrated that flavonoid saponins and phytosterols were present in all the samples. Comparative study of anti-oxidants including catalase, GST, GSH, DPPH and MDA on extracts of *Curcuma longa* (rhizome), *Cinnamomum verum* (bark), *Psidium guajava* (leaves), and *Rhapis excels* (leaves) showed that the highest level of anti-oxidants are present in *Psidium guajava* (leaves) followed by *Curcuma longa* (rhizome), and *Cinnamomum verum* (bark) which showed moderate level of antioxidants whereas *Rhapis excels* (leaves) showed lowest level. Thus we can conclude from the study that *Psidium guajava* (leaves) has highest antioxidant potential amongst all the samples analyzed and *Rhapis excels* (leaves) has the lowest which aligns with the phytochemical analysis.