Antioxidant activity and total phenolic content of an isolated Morinda citrifolia L. methanolic extract from Poly-ethersulphone (PES) membrane separator

Abstract

Antioxidant activity and total phenolic content of an isolated Morinda citrifolia L. methanolic extract by using membrane separator were investigated. The extract of M. citrifolia L. fruit by methanol was separated into permeate and retentate by Polyethersulphone (PES). The effect of temperature in the range of 30–70 C, and pressure in the range of 0.5–1.5 bar on the antioxidant activity and total phenolic content was studied. The 2, 2-diphenyl-1-picrylhydrazyl (DPPH) scavenging activity exhibited a gradual increase in permeates' collection from membrane separation. The total phenolic content was also found to follow the same trend. The optimum magnitudes of DPPH radical scavenging activity and total phenolic content were found to be 55.60% and 43.18 mg GAE/10 gm of sample respectively