



International Journal of Advanced Research in Biology, Engineering, Science and Technology (IJARBEST)

Vol. 2, Special Issue 8, February 2016 in association with

KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, VIRUDHUNAGAR

DEPARTMENT OF BIOTECHNOLOGY

ORGANIZES

DBT, NEW DELHI SPONSORED NATIONAL LEVEL CONFERENCE ON CONTEMPORARY TRENDS IN
BIOENERGY AND GREEN TECHNOLOGY: CHALLENGES AND OPPORTUNITIES [ORA-2016]

(25-26TH FEBRUARY 2016)

Evaluating antibacterial activity of *Curcuma longa* combination with silver nitrate and copper sulphate

R.Rajeswari and S.Rajeshwari.

I. Department of Biotechnology, P.S.R.Engineering College, Sivakasi-626 140, Virudhunagar (Dt)

Abstract

Tumeric (*Curcuma longa*) is a medicinal plant used in ayurveda, unani and siddha . *C.longa* botanically related to ginger (*Zingiberaceae* family), is a perennial plant having a short stem with large oblong leaf and bears ovate, pyriform or oblong rhizomes and brownish- yellow in colour.

Component of turmeric are named Curcuminoids, which include namely curcumin, demethoxycurcumin, and bisdemethoxycurcumin. It's having antiinflammatory antioxidant, anticarcinogenic, antiangiogenic antidiabetic, antibacterial, antifungal antiviral, antimicrobial, antiparasitic, antimutagenic, antifibrotic, antivenom, antiulcer, and antioxidant property.

In our work , the effect of acetone extracted curcumin, Standard curcumin, silver nitrate ,copper sulphate and its combination were studied against five different organisms namely *P.aeruginosa*, *N.meningitidis*, *B.cereus*, *E.coli* and *Brucella Spp* .0.5% concentration of anti-bacterial activity of these compounds were screened using agar well diffusion method . Acetone extracted curcumin with Silver nitrate and Copper sulphate showed maximum activity 34 mm,33 mm,21 mm,22mm and 17mm against *E.coli*, *B.cereus*,, *Brucella Spp* , *P.aeruginosa* and *N.meningitidis* respectively. The results revealed that the combination of these compounds showed better antibacterial effect than the individual compounds.

Keywords: *Curcuma longa*, acetone, copper sulfate, Silver nitrate, Antimicrobial activity.

IJARBEST

Research at its Best !!!