

## LIST OF FIGURES

- Figure 2.1: Zone of inhibition by aqueous extracts of 12 plants against different bacterial isolates.
- Figure 2.2: Zone of inhibition by decoction of 12 plants against different bacterial isolates.
- Figure 2.3: Zone of inhibition by butanol extracts of selected 4 plants against different bacterial isolates.
- Figure 2.4: Zone of inhibition by ether extracts of selected 4 plants against different bacterial isolates.
- Figure 2.5: MIC of different solvent extractions of *Dodonaea viscosa* against 7 different bacterial isolates.
- Figure 2.6: MIC of different solvent extractions of *Dodonaea viscosa* against 3 strains of *Staphylococcus*
- Figure 3.2: TLC showing all the 9 compounds of ether extract. The mobile phase used was 40% ethyl acetate: 60% hexane
- Figure 3.3a:  $^1\text{H}$  NMR of Dodochromen in  $\text{CDCl}_3$ ; Mol wt:178;  $\text{C}_{10}\text{H}_{10}\text{O}_3$  (X axis:  $\delta$  ppm; Y axis: peak height)
- Figure 3.3b:  $^1\text{H}$  NMR of Dodochromen in  $\text{CDCl}_3$ ; Mol wt:178;  $\text{C}_{10}\text{H}_{10}\text{O}_3$  (X axis:  $\delta$  ppm; Y axis: peak height)
- Figure 3.3c:  $^1\text{H}$  NMR of Dodochromen in  $\text{CDCl}_3$ ; Mol wt:178;  $\text{C}_{10}\text{H}_{10}\text{O}_3$  (X axis:  $\delta$  ppm; Y axis: peak height)
- Figure 3.4:  $^1\text{H}$  NMR of Dodochromen in  $\text{CDCl}_3$  with  $\text{D}_2\text{O}$  exchange; Mol wt:178;  $\text{C}_{10}\text{H}_{10}\text{O}_3$  (X axis:  $\delta$  ppm; Y axis: peak height)
- Figure 3.5:  $^{13}\text{C}$  NMR of Dodochromen in  $\text{CDCl}_3$ ; Mol wt:178;  $\text{C}_{10}\text{H}_{10}\text{O}_3$  (X axis:  $\delta$  ppm; Y axis: peak height)
- Figure 3.6: IR of Dodochromen in  $\text{CDCl}_3$ ; Mol wt: 178;  $\text{C}_{10}\text{H}_{10}\text{O}_3$
- Figure 3.7: GCMS of Dodochromen; Mol wt: 178;  $\text{C}_{10}\text{H}_{10}\text{O}_3$
- Figure 4.1: Use of mice model for demonstrating the abscesses caused by *Staphylococcus aureus*
- Figure 4.2: Time kill kinetic of Dodochromen
- Figure 4.3: Post antibiotic effect of Dodochromen
- Figure 4.4: In vivo bacterial growth curve with and without Dodochromen
- Figure 5.1: Gel photo of the *MecA* gene fragment cloned in multicopy *E.coli* vector pGEM T Easy

- Figure 5.2a: Dissociation curve analysis: NTC
- Figure 5.2b: Dissociation curve analysis: 500ng of template DNA
- Figure 5.2c: Dissociation curve analysis: 50ng of template DNA
- Figure 5.3: Nucleotide sequence (Genebank accession no: DQ836131)
- Figure 5.4: Conceptual amino acid sequence (Reading frame: -1; Translation table 11):
- Figure 6.1: Determination of LD50 of Dodochromen
- Figure 6.2a: Histopathological test of liver of mice showing the damages in T3 (96mg/kg Dodochromen) &T4 (144mg/kg Dodochromen) groups
- Figure 6.2b: Histopathological test of kidney of mice showing the damages in T3 (96mg/kg Dodochromen) &T4 (144mg/kg Dodochromen) groups
- Figure 6.3: Dose dependent response of Dodochromen on MCF-7 breast cancer epithelial cells at T48h
- Figure 7a: Dodonoea viscosa leaves
- Figure 7b: Dodonoea viscosa growing in extreme climatic condition.