3.3 NEW WORK

A survey of literature revealed that only a little work has been reported on tetrahydroimidazoles and therefore, present studies were devoted to the syntheses and biological evaluation of tetrahydroimidazoles. Fourteen new naphthalene incorporated tetrahydroimidazole derivatives were synthesized. The scheme followed in synthesizing these compounds consisted in preparing diSchiff’s base by reacting ethylenediamine with 1-naphthaldehyde when solid derivative was obtained. This compound was reduced with NaBH$_4$ to obtain the tetrahydrodiSchiff’s base. Finally, this derivative was condensed with appropriate aldehyde to give corresponding naphthalene incorporated tetrahydroimidazole. The structure of all these compounds were established on the basis of IR, NMR ($^1$H NMR and $^{13}$C NMR) and mass spectral data.

The above compounds were evaluated for their anti-inflammatory, analgesic, ulcerogenic and lipid peroxidation actions. Besides, these compounds were also tested for their antibacterial and antifungal activities. The details of investigations and characterization of the compounds are being reported in experimental and discussion parts of this chapter.