



**Synthesis and antimicrobial evaluation of some novel 3,4-bis(substituted- phenyl)-7-(2,6-dichloro-4-(trifluoromethyl)phenyl)-5,7-dihydro-2H- pyrrolo[2,3-c:5,4-c']dipyrzole derivatives of 2,6-dichloro-4-trifluoro methyl aniline**

**Shankarsing Sardarsing Rajput\*<sup>1</sup>, Rahebar Ali Mohammed Ali Sayyed<sup>2</sup>**

<sup>1</sup>Department of Chemistry, SVS's Dadasaheb Rawal College Dondaicha, Dist.Dhule (M.S) 425408, India

<sup>2</sup>Department of Chemistry, PSGVPM's Arts, Commerce and Science College, Shahada, Dist.Nandurbar (M.S) 425409, India.

**Abstract :** Succinic anhydride was converted to 4-(2, 6-dichloro-4-(trifluoromethyl) Phenyl) amino)-4-oxobutanoic acid. It underwent cyclization in presence of acetyl chloride furnished 1-(2, 6-dichloro-4-trifluoromethyl-1-phenyl)-pyrrodine-2, 5-Dione. This pyrroline-2, 5-dione on condensation with substituted aromatic aldehydes in presence of acetic acid afforded (3E, 4E)-3, 4-bis (substituted benzylidene)-1-(2, 6-dichloro-4-(trifluoromethyl) phenyl) pyrrolidione-2, 5- Dione. These derivative underwent ring closer with hydrazine hydrate afforded 3, 4-bis (substituted phenyl)-7-(2, 6-dichloro-4-(trifluoromethyl) phenyl)-5, 7-dihydro-2H-pyrrole [2, 3-C: 5-4-C<sup>1</sup>] dipyrzole. All the synthesized compounds were analyzed by spectral and elemental analysis. Similarly these derivatives were screened for their microbial activity against S.aureus, E.coli, A. Alternaria and A.niger. Some of the derivatives showed potent activity against S.aureus and E.coli.

**Keywords :** Bis-chalcone, bis-pyrzole, anti-microbial activity.