

Abstract

N-Heterocyclic conjugated compounds contain one or more nitrogen atoms in their ring(s). They compounds are being utilized in organic synthesis, and for applications in medicinal and organic electronics. 2,1,3-benzothiadiazole (BTD) is an N-heterocyclic precursor, an electron-deficient unit used for the synthesis of small conjugated molecules. Herein, BTD core is being utilized as a strong electron acceptor unit in the framework of new D-A-D molecules and these molecules contain benzene ring on the periphery with two different electron donating substituents. These compounds were synthesized via metal-catalyzed Stille and Suzuki coupling and were characterized by IR and NMR spectroscopy. Furthermore, their optical properties were assessed by UV-Visible absorption spectroscopy to see the influence of peripheral groups. The BTD core has proven useful for improving the properties and stability of new small conjugated molecules.