



INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI
SHORT ABSTRACT OF THESIS

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Programme of Study : Ph.D.

Thesis Title: Exploration of 4-hydroxydithiocoumarin for the synthesis of novel organosulfur compounds

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SHORT ABSTRACT

The Ph. D. thesis work 'Exploration of 4-hydroxydithiocoumarin in the synthesis of novel organosulfur compounds' describes some original and interesting research work. The dissertation contains six chapters. The thesis work is designed to employ 4-hydroxydithiocoumarin as an efficient starting material for the synthesis of new organosulfur molecules i.e. 1,3-thiazine, thiophene, thiopyran, 1,2-dithiole, sulfenamides, disulfides and sulfane based organosulfur molecules via fine tuning of the reaction conditions which are discussed in the successive chapters of this thesis. All these compounds are well characterized by spectroscopic techniques. Out of all the works in the thesis, four works have been published in various international journals and the last work will be communicated soon.