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**List of Chapters published in  
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Sr. No.	Name of faculty	Title of chapters Published	Year of Publication	National / International	ISBN Number	Name of the publisher
1	Dr. D. V. Bhagat	"Synthesis, Characterization and antimicrobial screening of N[4 methyl coumarin-7-yl-amino]-1-Aryl Thio-azolidinone derivative	2018-19	International	978-613-9-45834-9	LAMBERT Academic Publisher
2	Dr. S. D. Tupare	Efficient Synthesis of Substituted Benzimidazoles By Microwave Irradiation	2018-19	International	978-613-9-45834-9	LAMBERT Academic Publisher



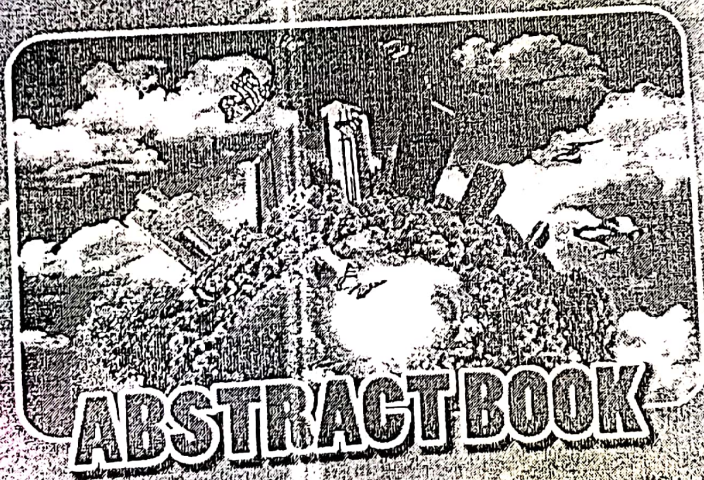
  
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# International Conference

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## Synthesis Characterization and Antimicrobial Screening of N [4-Methyl Coumarin -7-yl-Amino] -1-Aryl Thioazolidinone Derivative

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### Abstract

4-methyl-7- amino Coumarin on diazotization followed by reduction with  $\text{SnCl}_2/\text{HCl}$  at  $0^\circ\text{C}$  temperature gives 4 methyl [Coumarin-7-yl ] hydrazine hydrochloride salt (2a), which on action of aromatic aldehyde gives N [ 4-methyl Coumarin-7-yl amino] hydrazono-1-aryl methane (3a) .This on refluxed with mercapto acetic acid in presence of catalytic amount of anhydrous Zinc chloride in dry 1,4 dioxane for 7 hrs to yield corresponding Coumarin derivative i.e. N [ 4-methyl coumarin -7-yl-amino] -1-aryl thioazolidin - 4-[ H] one (4a). All compounds have been confirmed on the basis of their spectral and analytical data. All above compounds are screened for their microbial activities and have been found to exhibit significant antibacterial and antifungal activities.

**Keywords:** Coumarin, thiozolidinone, Mercapto acetic acid, antibacterial and antifungal activities.

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## CHAPTER 12

### Efficient Synthesis of Substituted Benzimidazole by Microwave Irradiation

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#### Abstract

Heterocyclic imidazolium ring is one of the most important structures found in the large number of natural products and pharmacologically active compounds. Imidazole derivatives have occupied a unique place in the field of medicinal chemistry. 2, 4, 5-triaryl-1H-imidazole derivatives have gained remarkable importance due to wide biological activities. These imidazole compounds play an important role in biochemical processes. Imidazole derivatives also showed estrogen receptor and cyclooxygenase cytotoxic inhibitors, antifungal, anthelmintic, pesticidal or herbicidal properties. Various substituted imidazole possesses potential and controlled therapeutic activities. They are active components in several drug molecules like Losartan, Olmesartan, Eprosartan, and Trifenagrel, peptides, etc. Imidazole's are well-known nitrogen containing bioactive heterocycles which are widely used in medicinal applications. The present paper focused on their synthesis and microbial activities.

**Key Words:** *bioactive, estrogen, imidazolium, losartan, pharmacologically*