



**NANYANG  
TECHNOLOGICAL  
UNIVERSITY**

**PART I : SYNTHESIS OF SEX PHEROMONE OF THE  
PINE SAWFLY, *MACRODIPRION NEMORALIS***  
**PART II : SYNTHETIC STUDIES TOWARDS THE TOTAL  
SYNTHESIS OF IRIOMOTEOLIDE-1A**

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**SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES**  
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