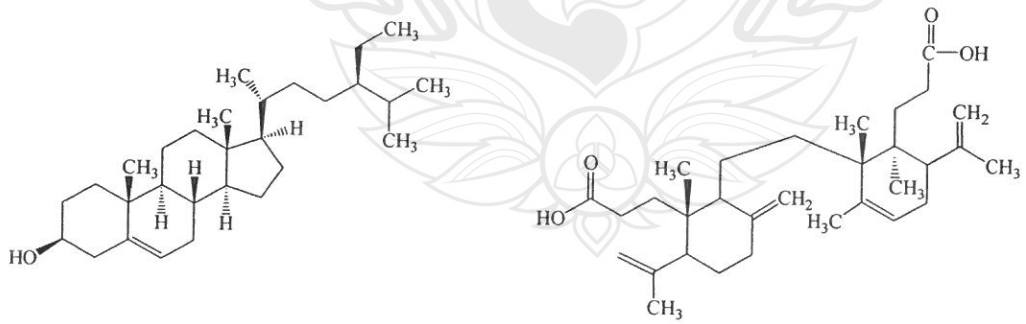
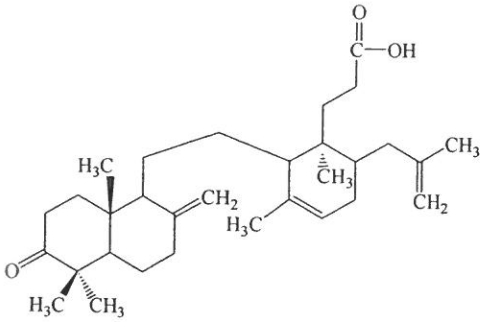
ABSTRACT

Study on the chemical constituents of the dried leaves of *Camellia sinensis* var. *assamica* resulted in isolation of a new compound: 13-methyl lansic acid (**2**) and eleven known compounds: β-sitosterol (**1**), lansionic acid (**3**), stigmasterol (**4**), (+)catechin (**5**), 21*R*-hydroxyonocera-8(2b),14-dien-3-one (**6**), lupeol (**7**), lupenone (**8**), (-)epigallocatechin gallate (**9**), (-)epicatechin gallate (**10**) and (-)epicatechin (**11**). Their structures were elucidated on the basis of UV, IR and NMR spectroscopic data.

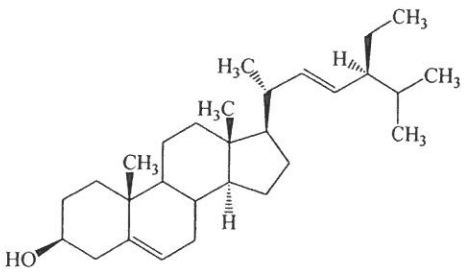
The compounds with sufficient quantity were evaluated for their antioxidation and antibacterial activities. Compounds **5**, **9**, **10** and **11** exhibited stronger antioxidant activity (IC_{50} 0.60, 0.23, 0.27 and 0.07 mM, respectively) than that of ascorbic acid (IC_{50} 1.75 mM) and BHT (IC_{50} 3.03 mM). These four compounds also showed the moderate activities to inhibit the growth of *Staphylococcus aureus*, *Escherichia coli*, *Bacillus cereus*, *Pseudomonas florescens* and *Salmonella typhimurium* with MIC 16-128 μg/mL compared to those of gentamycin and vancomycin (0.5 μg/mL).



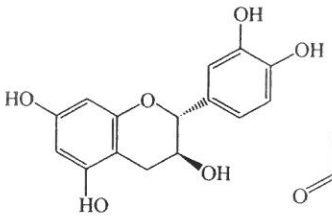
1 **2**



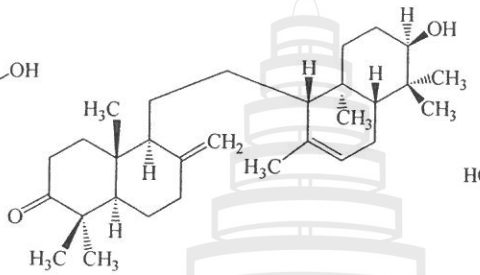
3



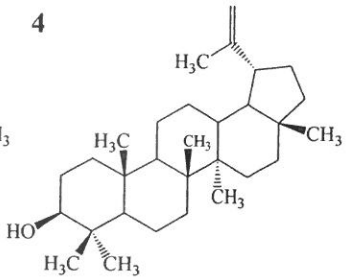
4



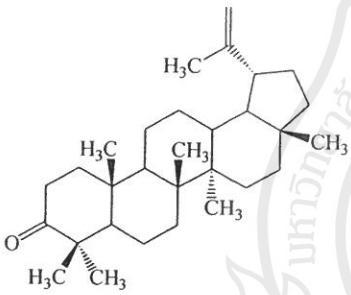
5



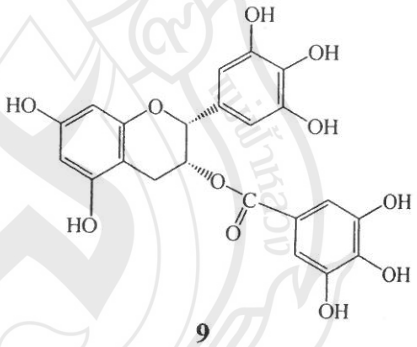
6



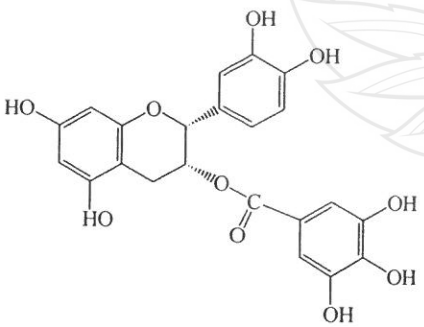
7



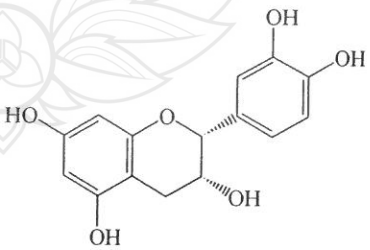
8



9



10



11