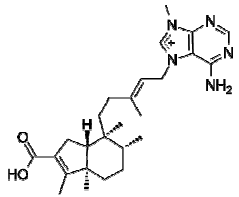
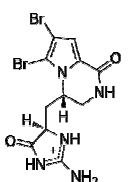
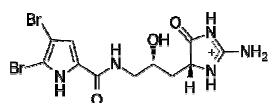
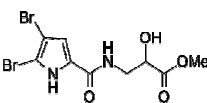


論 文 内 容 要 旨

報告 番号	甲 創 第 39 号	氏 名	Lee Sanghoon
学位論文題目	Chemical Studies on Okinawan Marine Sponges <i>Agelas</i> spp. (沖繩産 <i>Agelas</i> 属海綿由来の新規二次代謝産物の構造研究)		
<p>Natural products have long been a major source of therapeutic agents and their lead compounds. Although a number of therapeutic agents have been developed based on plant-derived natural products, marine natural products have also made an important contribution to drug discovery.</p> <p>Marine sponges belonging to the genus <i>Agelas</i> are known to produce bioactive natural products such as diterpene alkaloids and bromopyrrole alkaloids. In this study, constituents of four marine sponges <i>Agelas</i> spp. (SS-12, SS-1302, SS-159, and SS-516) collected at Okinawa were investigated to afford two new diterpene alkaloids and eight new bromopyrrole alkaloids.</p> <p>1) New diterpene alkaloids from marine sponge <i>Agelas</i> sp.</p> <p>The Okinawan marine sponge <i>Agelas</i> sp. (SS-12) was extracted with MeOH. The extract gave eight diterpene alkaloids including two new compounds, agelamasines A (1) and B (2). Their structures were elucidated on the basis of spectroscopic data. Agelamasines A (1) and B (2) are diterpene alkaloids with an <i>N</i>-methyladenine moiety. Agelamasine A (1) is the first rearranged clerodane diterpene with an alkaloidal partial structure, and is also the first example of a diterpene possessing this skeleton from a marine source, though several rearranged clerodane diterpenes have been isolated from terrestrial plants.</p> <p>2) New bromopyrrole alkaloids from marine sponges <i>Agelas</i> spp.</p> <p>The marine sponges <i>Agelas</i> spp. (SS-1302, SS-159, and SS-516) were individually extracted with MeOH. The extract of SS-1302 was separated by column chromatographies to give six new bromopyrrole alkaloids, agesamides C–E (9–11), 9-hydroxydihydrodispacamide (12), 9-hydroxydihydrooroidin (13), and 9-(<i>E</i>)-keramadine (14). Agesamide C (9) is a new bicyclic bromopyrrole alkaloid with a pyrroloketopiperazine and an aminoimidazolone rings, while 12 is a new linear brominated pyrrole alkaloid with an aminoimidazolone moiety. In addition, chromatographic separations of the extract of SS-516 gave structurally rare bromopyrrole alkaloid. Although, bromopyrrole alkaloids have an aminoimidazole moiety biogenetically derived from histamine in common, agesasine A (32) is a bromopyrrole alkaloid lacking an aminoimidazole moiety.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>agelamasine A (1)</p> </div> <div style="text-align: center;">  <p>agesamide C (9)</p> </div> <div style="text-align: center;">  <p>9-hydroxydihydrodispacamide (12)</p> </div> <div style="text-align: center;">  <p>agesasine A (32)</p> </div> </div>			