CHEMISTRY OF ISOQUINOLINEQUINONE ANTIBIOTICS

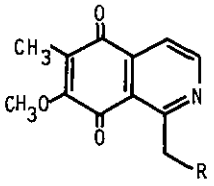
Akinori Kubo,* Yoshiyasu Kitahara,* Shinsuke Nakahara,* Naoki Saito,* Katsuhiro Takahashi,** and Tadashi Arai***

*Meiji College of Pharmacy, Setagaya-ku, Tokyo, Japan; **Chiba Cancer Center Research Institute, Chiba, Japan; ***Research Institute for Chemobiodynamics, Chiba University, Chiba, Japan

Recently several naturally occuring isoquinolinequinones have been isolated from Actinomycetes and from marine sponges.[1)]

We have described the isolation and structural elucidation of "dimeric" isoquinolinequinone antibiotics, saframycins and of "monomeric" antibiotics, mimosamycin and mimocin.[2)]

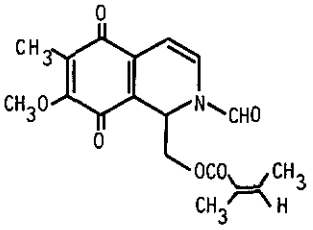
The results on the ceric ammonium nitrate(CAN) mediated synthesis of "monomeric" antibiotics(1-4) and the chemical properties of saframycin A(5) having the strongest antitumor activity among saframycins will be presented.



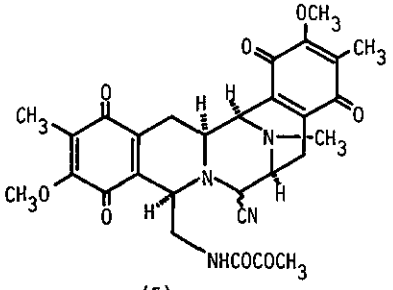
(1) R = $NHCOCOCH_3$

(2) R = OCO with CH_3, CH_3, H

(3) R = H



(4)



(5)

1) T.Arai and A.Kubo, "The Alkaloids" Vol.XXI, Academic Press, 1983, pp.55-100.

2) A.Kubo, S.Nakahara, R.Iwata, K.Takahashi, and T.Arai, Tetrahedron Lett., 3207 (1980) and references cited therein.