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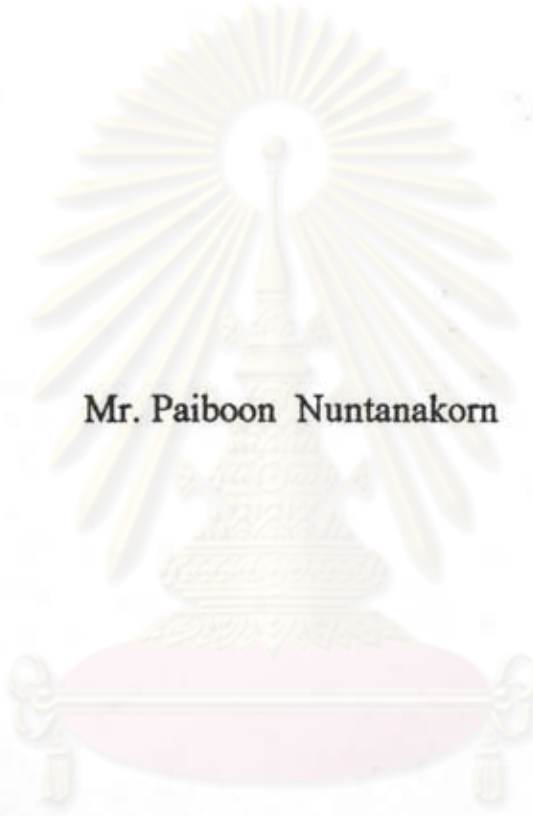
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DEGRADATION PRODUCTS OF KETOCONAZOLE



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จุฬาลงกรณ์มหาวิทยาลัย

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พิมพ์ต้นฉบับบทคัดย่อวิทยานิพนธ์ภายในกรอบสี่เหลี่ยมเพียงแผ่นเดียว

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การศึกษาการสลายตัวของคีโตโคนาโซลด้วยแสง ในตัวทำละลายอินทรีย์สี่ชนิดในระบบเปิด พบว่าการใช้เมธานอลเป็นตัวทำละลายภายหลังจากฉายแสงอุลตราไวโอเล็ตนาน 15 ชั่วโมง จะให้สารจากการสลายตัวของคีโตโคนาโซลปริมาณมากที่สุด เมื่อเปรียบเทียบกับการใช้ตัวทำละลายอะซิโตน เอธิลอะซิเตต และคลอโรฟอร์ม สารสลายตัวที่แยกได้คือ 1-อะซิติล-4-[4-[[[(1เอช-อิมิดาโซ[2,1-เอ] 3,4-ไคโซโคโร-7-คลอโร-ไอโซควิโนลิล)-6-สไปโร-2'-(1,3-ไคออกโซเลน-4-อิล)เมธอกซี]พีนิล] พิเพอราซีน ซึ่งพิสูจน์เอกลักษณ์ของสารนี้โดยอาศัยสเปกโทรสโกปีเทคนิค กลไกการสลายตัวของ คีโตโคนาโซลด้วยแสง คาดว่าผ่านอนุมูลอิสระ และการปิกเป็นวง



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จุฬาลงกรณ์มหาวิทยาลัย

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ลายมือชื่อนิสิต โทบูลย์ น.

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Photolysis of ketoconazole in four organic solvents with free access to air studied. It is found that the degradation products occurred when using methanol as solvent and with the optimum UV irradiation duration of 15 hours give better yields than acetone, ethylacetate and chloroform in the same condition. The isolated degradation products is 1-acetyl-4-[4-[[[(1H-imidazo[2,1-a]3,4-dihydro-7-chloro-isoquinoly1)-6-spiro-2'-(1,3-dioxolan-4-yl)] methoxy]phenyl]piperazine. The structure was elucidated by spectroscopic techniques. Photolytic reaction mechanism is proposed via free radical and cyclization.




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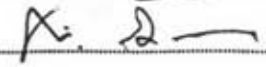
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ABBREVIATIONS

°C	=	Degree celcius
CDCl ₃	=	Deuterated chloroform
¹³ C NMR	=	Carbon-13 nuclear magnetic resonance
cm	=	Centrimeter
δ	=	Chemical shift
COSY	=	Correlated spectroscopy
COLOC	=	Correlated via long range coupling
J	=	Coupling constant
d	=	Doublet (for NMR spectra)
dd	=	Doublet of doublet (for NMR spectra)
DEPT	=	Distortionless enhancement by plarization transfer
EIMS	=	Electron impact mass spectrum
EtOH	=	Ethanol
g	=	Gram
¹ H-NMR	=	Proton nuclear magnetic resonance
Hz	=	Hertz
IR	=	Infrared
MS	=	Mass spectrum
m/z	=	Mass to charge ratio
MeOH	=	Methanol
mg	=	Milligram
ml	=	Milliliter
ε	=	Molar absorptivity

M^+	=	Molecular ion
MW	=	Molecular weight
m	=	Multiplet (for NMR spectra)
nm	=	Nanometer
NMR	=	Nuclear magnetic resonance
ppm	=	Part per million
s	=	singlet (for NMR spectra)
t	=	Triplet (for NMR spectra)
TLC	=	Thin layer chromatography
TMS	=	Tetramethylsilane
λ_{max}	=	wavelength at maximum absorption
UV	=	Ultraviolet



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