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MODERN SCIENTIFIC CHALLENGES AND TRENDS

COLLECTION OF SCIENTIFIC WORKS
OF THE INTERNATIONAL SCIENTIFIC CONFERENCE

Issue 5(39)
Part 2

Warsaw
2021

MODERN SCIENTIFIC CHALLENGES AND TRENDS

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June 2021

Collection of Scientific Works

WARSAW, POLAND
Wydawnictwo Naukowe "iScience"
7-9 June 2021

SCIENCECENTRUM.PL ISSUE 5(39) PART 2 ISBN 978-83-949403-3-1

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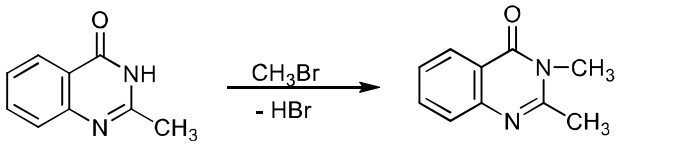
2-METILXINAZOLIN-4-ON METILBROMID BILAN TA'SIRLASHISH REAKSIYASINI O'RGANISH

Adabiyotlardan bizga ma'lumki tabiiy va sintetik geterotsiklik birikmalar xalq xo'jaligining turli sohalarida qo'llanilib kelinayotgan ko'pgina preparatlardan biridir. Mana shunday birikmalar qatoriga xinazolin qatori alkaloidlari va hosilalarini kiritishimiz mumkin. So'nggi yillardagi tadqiqotlar xinazolin halqasini saqlagan geterotsiklik birikmalar orasida turli farmakologik faol preparatlar ko'payib borayotganini ko'rsatadi. Shuning uchun xinazolin alkaloidlari, ularning analoglari va hosilalarining elektrofil va nukleofil reagentlar bilan hosil qilgan mahsulotlarining tuzilishini aniqlash va istiqbolli moddalarni maqsadli sintez qilish hamda ular asosida samarali biologik faol preparatlar yaratish dolzarb muammolardan biridir.

Biz oldingiz ishlarimizni davomi sifatida 2-metilxinazolin-4-onni elektrofil zarrachalar ishtirokida alkillash reaksiyalarini olib bordik. Bunda 2-metilxinazolin-4-onni metil bromid ishtrokida ta'sirlashish natijasida 64 % unum bilan 2-,3-dimetilxinazolin-4-on sintez qilindi.

Reaksiya quyidagi sxema asosida amalga oshadi:



2-metilxinazolin-4-on 2-,3-dimetilxinazolin-4-on

Ishni bajarish tartibi: 2-metilxinazolin-4-on 0,01mol ni KOH 0,01mol va etil spirt (20ml) ni tubi yumoloq kolbaga solib 10 daqiqa qaynatamiz. So'ngra hosil bo'lgan mahsulot biroz sovutilib ustiga CH_3Br 0,01mol ni solamiz va 12 soat davomida moy hammomida 90 ^oC da qaynatamiz. Yupqa qavat xromotografiyasida tekshirib boramiz orada. Keyin moddamizni sovutib KOH ni 5% li 20 ml eritmasida 5 daqiqa chayqatamiz va teng halimda xloroform 20ml qo'shib yana 10 daqiqa chayqatamiz. Ajratish voronkasiga solib xloroformga o'tgan qisimni ajratib olamiz, suvni yo'qotish maqsadida K_2SO_4 (2 g) qo'shib 3-4 soatga qo'yib qo'yamiz. So'ngra filtirdan o'tqazib moddamizdan xloroformni haydab biroz qismi qolganda olib petriy chashkaga quyib xloroform uchguncha ochiq qoldiramiz. Oq paxtaga o'xshash modda qoladi. Uni yupqa qavat xromotografiyada tekshirib olamiz. Sistema: benzol:ateston 1:1 nisbatda

Quyida sintez qilingan moddaning ^{1}H-YaMR spekti ko'rsatilgan:

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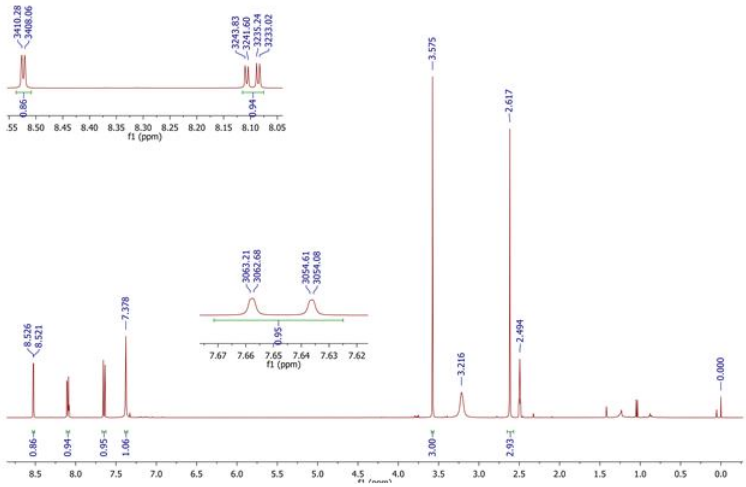

1-rasm: 2,3-dimetil xinazolin-4-on ^{1}H-YaMR spektri (O'MKI, Oxford/Varian firmasining 400 MHz li YaMR spektrometri (Buyuk Britaniya), erituvchi DMSO+CCl_4)

1-rasmdan moddaning ^{1}H-YaMR spektri haqida quyidagi xulosalarni olish mumkin: ikkita -CH_3 guruhiga tegishli signallar δ_H=2.61 va δ_H=3.57 da singlet tarzda ko'ringan; aromatik halqadagi ($HC_{(aromatik)}$) to'rtta protonga tegishli δ_H=7.38 (m), δ_H=7.64 (dd, 8.6, 0.53), δ_H=8.09 (dd, 8.59, 2.23) va δ_H=8.52 (d, 2.22) spektr chiziqlarni ko'rish mumkin.

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Executive Editor-in-Chief: PhD Oleh M. Vodianyi

June 2021

ISSUE 5(39)
Part 2

Founder: "iScience" Sp. z o. o.,
NIP 5272815428

Subscribe to print 11/06/2021. Format 60×90/16.
Edition of 100 copies.
Printed by "iScience" Sp. z o. o.
Warsaw, Poland
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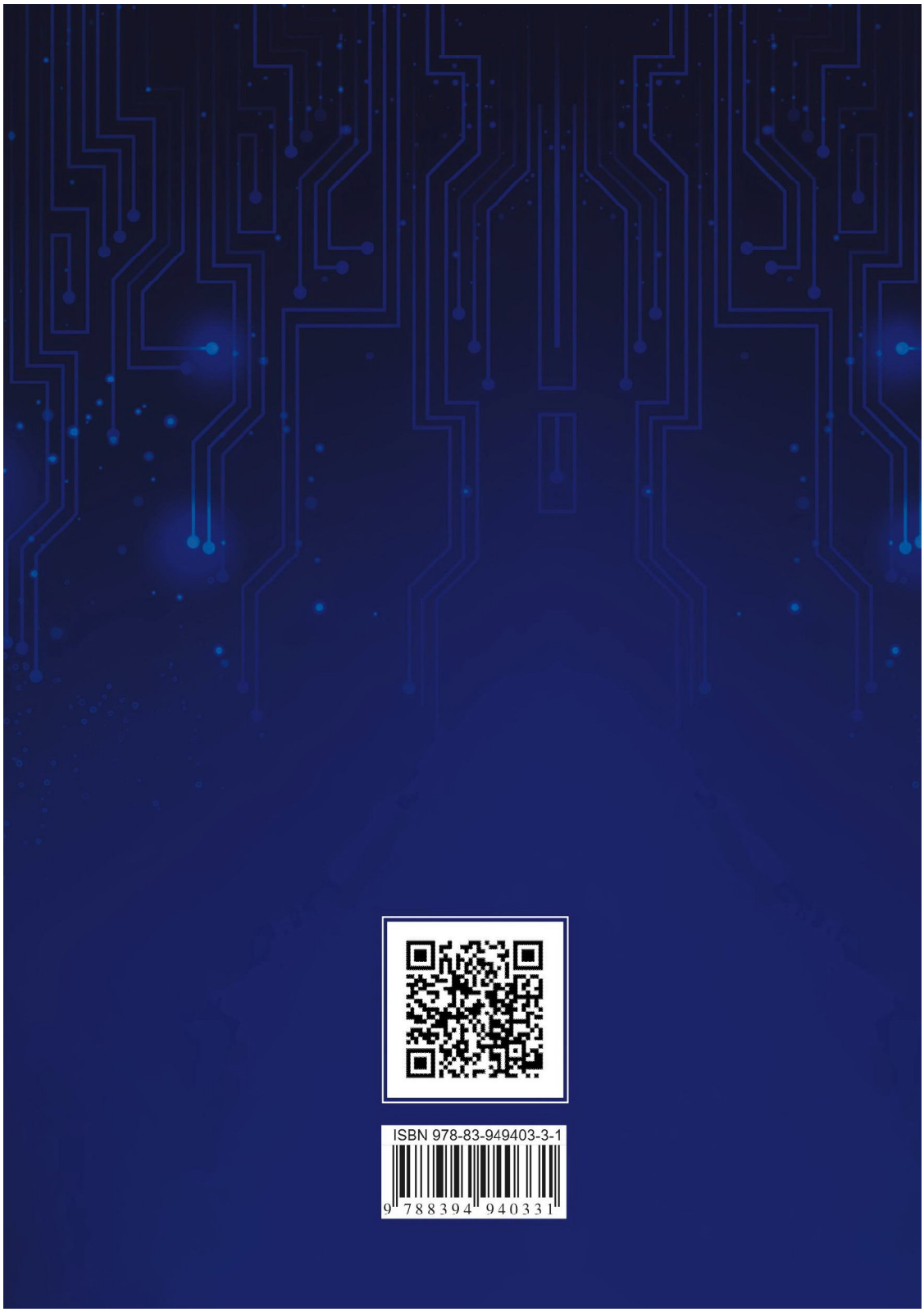

ISBN 978-83-949403-3-1