

الآية

قال تعالى:

(لَا يَكْفُرُ اللَّهُ نَفْسًا لَّا وَسَعَهَا لَهَا مَا كَسَبَتْ وَعَدَيْهَا مَا اكْتَسَبَتْ رَبَّنَا لَا
تُؤَاخِذْنَا بِإِسْرَارِنَا أَوْ خَطَايَا رَبَّنَا وَلَا تَحْمِلْ عَلَيْنَا إصْرًا كَمَا حَمَلْتَهُ عَلَى
الَّذِينَ مِنْ قَبْلِنَا رَبَّنَا وَلَا تَحْمِلْنَا مَا لَا طَاقَةَ لَنَا بِهِ وَاعْفُ عَنَّا وَعِظْ لَنَا
وَارْحَمْنَا أَنْتَ مَوْلَانَا فَانصُرْنَا عَلَى الْقَوْمِ الْكَافِرِينَ (286))

صدق الله العظيم

سورة البقرة الآية (286)

Dedication

I dedicate this work to

My parents

My brother

Acknowledgment

Thank to Allah The Most Gracious, The Compassionate for giving me strength and health to complete this work. I am deeply grateful to my supervisor: Prof. Dr. Ahmed Elsadig Mohammed Saeed, for suggesting the idea of this work. I wish to thanks ustaz Ahmed Abakar for being available willingly to provide help when being asked. I am grateful to the chemistry laboratory staff for their great help. Last, but not least special thanks are due to all those who have kindly helped me.

Abstract

In the present work a group of nine new 1,4-dihydropyridine derivatives (1,4-DHPs) were synthesized by the reaction between the different aldehydes and amines with ethyl acetoacetate. The selection of these compounds was based upon molecular modeling concept in which ACD/lab program was utilized. Physicochemical properties of a set of 25 compounds of a family of 1,4-dihydropyridine derivatives were obtained. The synthetic design of these compounds was achieved through retrosynthetic analysis.

The reaction progress for all synthetic compounds was checked by (TLC) technique, and the structures of the synthesized compounds were confirmed by IR Spectral data.

المستخلص

في هذا البحث تم تحضير مجموعة لتسعة مشتقات جديدة لمركبات 1,4-ثنائيهيدروبيريدين بواسطة التفاعل بين الدهيدات وامينات مختلفة مع ايثايل اسيتواسيتيت. اختيار هذه المركبات بني علي اساس استخدام مفهوم النمذجة الجزيئية لبرنامج ACD/lab. تم تحديد الخواص الفيزيوكيميائية ل 25 من هذه المركبات التي تنتمي الي طائفة مشتقات 1,4-ثنائي هيدروبيريدين. تم ايضا متابعة هذه المركبات وانجازها من خلال عملية التحليل الرجعي. تمت متابعة خطوات سير التفاعل للمركبات المحضرة بواسطة تقنية كروماتوجرافيا الطبقة الرقيقة, وكذلك معرفة تركيبها الكيميائي بواسطة بيانات طيف الاشعة تحت الحمراء.

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List of abbreviation:

D≡Density

M.R≡Molar Refractivity

M.V≡ Molar Volume

MF≡ Molecular Formula

M.wt≡ Molecular weight

St.vib≡ stretching vibration

Rec≡ Recrystallization

DHPs≡ Dihydropyridines