

purification et identification des amides ferrocéniques et leurs activités biologiques et l'inhibition de la corrosion

Master II Organic chemistry

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Abstract

The discovery of the ferrocene had a giant reflection in the field of chemistry because of the interactions that the ferrocene was the basis of it and the great benefit it has in several areas. The goal of our work is the synthesis, separate and purification of some of the non-substitue and substitue nitro amid which is shown in the in the reaction , and a study of it biological and anti-oxidation efficacy.

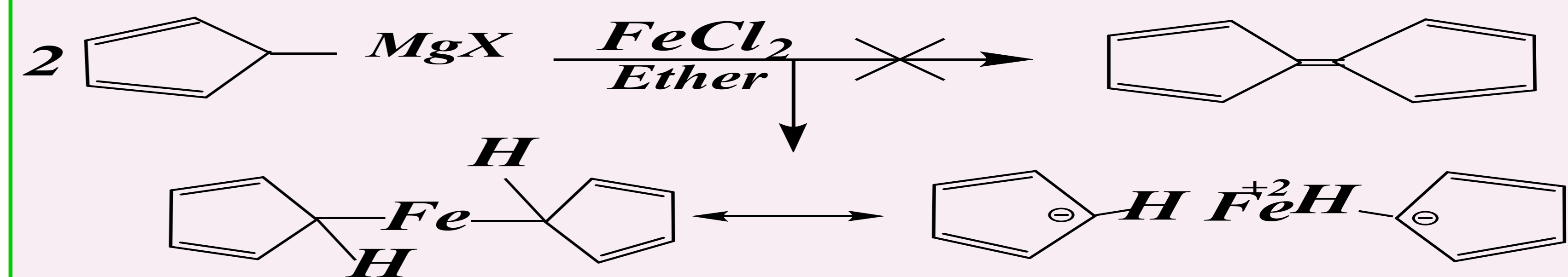
Key words: ferrocene, binitro amidat synthesis , purification, biological , anti-pxydation

Keywords: Amides ferrocéniques, purification, identification

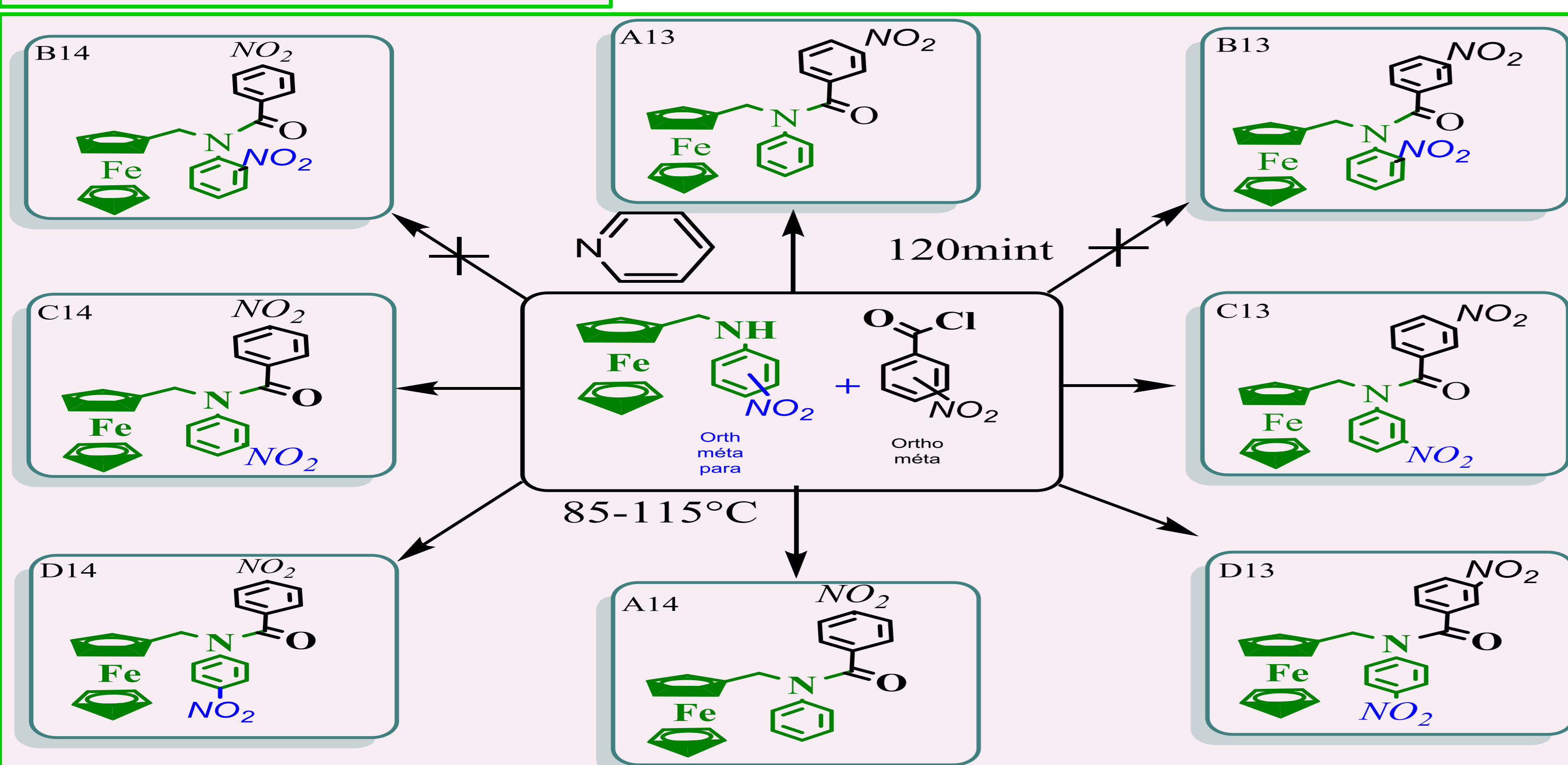
المخلص
اكتشاف الفيروسان كان بمثابة قفزة عملاقة في مجال الكيمياء لما انجر عليه من تفاعلات كان هو اساسها و كانت ذا فائدة كبيرة في عدة مجالات فالقد كان الهدف من عملنا هذا هو تصنيع و فصل وتنقية بعض أميدات فيرو سنية غير مستبدلة والمستبدلة بنيترو كما هو موضح في التفاعل ودراسة الفعالية البيولوجية و كذلك فاعليتها مضادة الاكسدة.
الكلمات المفتاحية : الفيروسان , بنيترو , تصنيع, تنقية, البيولوجية , مضاد الاكسدة

Introduction

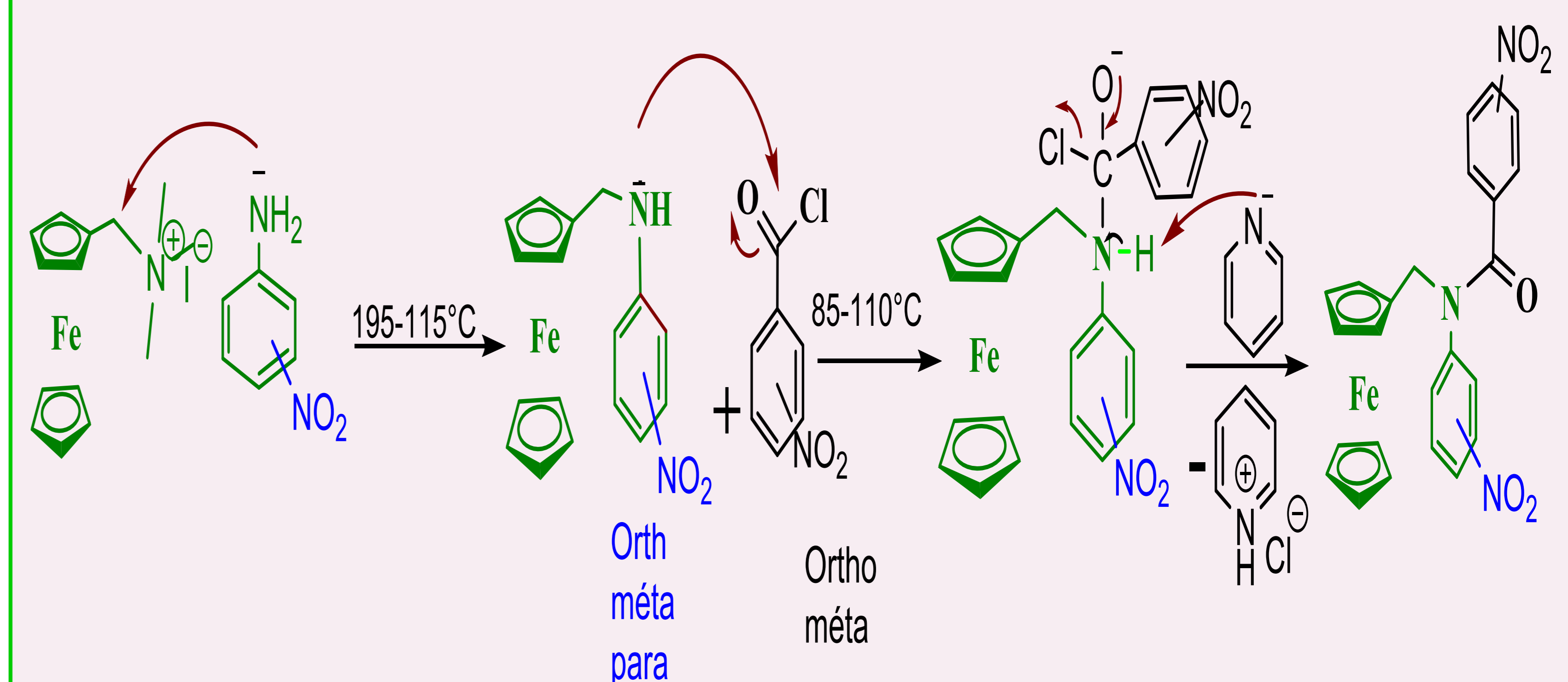
The nineteenth century saw a widespread interest in organometallic chemistry [1], especially after the discovery of the ferrocene in 1951 by P-L.Pauson and [2] T.J.Kealy. Whereas the latter were trying to prepare dihydrofulvalène by an oxidation reaction of the Grignard compound of C₅H₅MgBr with chlorid dioxide iron in the presence of ether ,they obtained a chemically stable orange compound with a camphor-like odor. [1] Pauson suggested a ring pattern for this new compound in which the iron is associated with the pentadenyl rings with the ionic bond sigma so in our work we tried to synthesis substitute and non substitute amin ferocinic and amide ferocinic based on ferocinic salt



General reaction



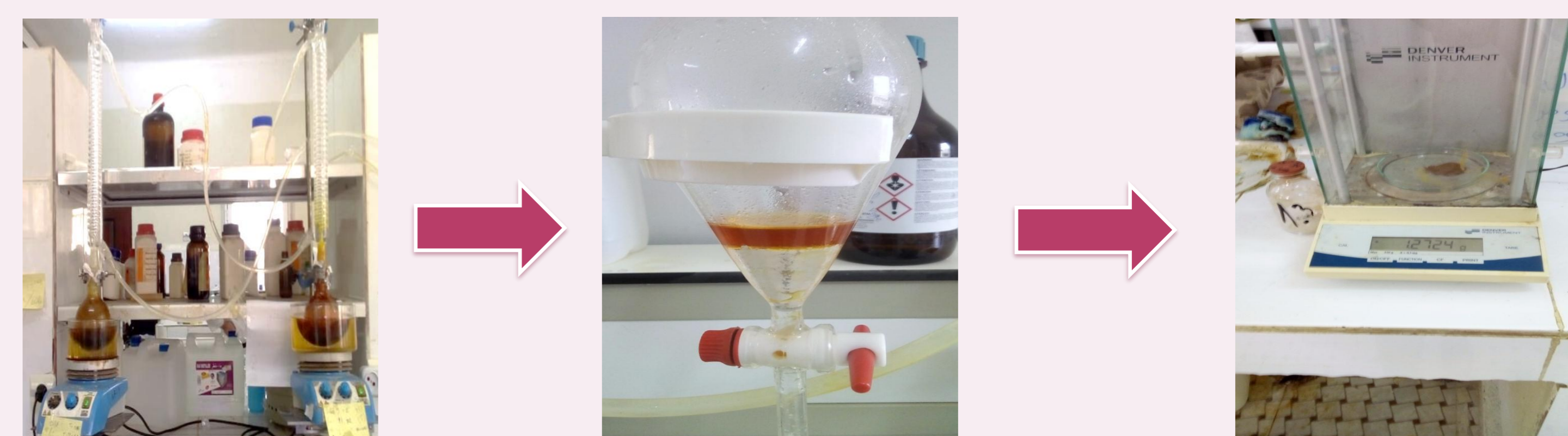
Reaction mechanism



Results and discussion

product	A13	A14	B13	B14	C13	C14	D13	D14
Characteristic								
Rf	0.40	0.39	-	-	0.44	0.4	0.3	0.28
R	62.47	60.76%	-	-	65.26%	94%	82.24%	47.13%
Colores	brown	red brown	-	-	Brown	Red brown	Brown	Dark brown

Materials and methods



synthesis

Cooling it and adding water

Final Product

Reffernces

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First observation

After finishing most of the work trying to synthesis ferocinic amines we were able to accomplish some good yields that was between 60% to 94%

Ferrocenylamine O nitro anline with 81% yields

Ferrocenylamine M nitro anline with 61,7% yields

Ferrocenylamine P nitro anline with 94%