

Faculté/Institut : SCIENCES EXACTES

Département : CHIMIE

1- Identification du laboratoire/Unité de recherche			
			اسم المخبر
Intitulé du Laboratoire	Laboratoire de synthèse de molécules d'intérêts biologiques		
Acronyme du labo	SYMOBIO		
Adresse électronique			
Site web ou URL			
Année d'Agrément :	Janvier 2012	Tel :	Fax :

2- Directeur du laboratoire/Unité de recherche			
Nom & Prénom	DEBACHE ABDELMADJID	Grade : PROFESSEUR	
Adresse Electronique	A_debache@yahoo.fr		
Nombre Equipes :	04	Nbre Chercheurs :	Nbre Personnel soutien : 00

3- Présentation du laboratoire
<p><b>Thèmes mis en œuvres :</b> <b>Le thème principal de recherche de notre laboratoire est la synthèse d'hétérocycles par les réactions à composants multiples.</b></p> <p><b>On essaye de mettre au point de nouvelles méthodologies dans des réactions multicomposants en travaillant en particulier sur l'utilisation de nouveaux catalyseurs.</b></p> <p><b>Mots-Clés : réaction à composants multiples, Biginelli, Hantzsch, Petasis, hétérocycles.</b></p>

4- Chefs d'équipes		
.Titre de l'Equipe1	Synthèse en série hétérocyclique	
Nom - Chef d'équipe <sup>1</sup>	DEBACHE Abdelmadjid	Grade : Professeur
.Titre de l'Equipe2	Synthèse asymétrique	
Nom - Chef d'équipe <sup>2</sup>	BOUMOUUD Boudjema	Grade : Professeur
.Titre de l'Equipe3	Etude et applications de quelques réactions à composants multiples	
Nom - Chef d'équipe <sup>3</sup>	BOUMOUUD Taous	Grade : Professeure
.Titre de l'Equipe4	Synthèse à composants multiples à partir de produits naturels	
Nom - Chef d'équipe <sup>4</sup>	BOULCINA Raouf	Grade : MCA

5- Liste des publications :
<p><b>1°/-<u>Abdelmadjid Debache</u>; Louisa Chouguiat; Raouf Boulcina and Bertrand Carboni; "A one-pot multi-component synthesis of dihydropyrimidinone/thione ans dihydropyridine derivatives via Biginelli and Hantzsch condensations using <i>t</i>-BuOK as a catalyst under solvent-free conditions"; <i>The Open Organic Chemistry Journal</i>, <b>2012</b>, 6, 12-20.</b></p>

**2°/-**Boudjemaa Boumoud; Amel Zetchi; Taous Boumoud; and Abdelmadjid Debache; *Journal Of Chemical and Pharmaceutical Research*; **2012**, 4, 2517-2521.

**3°/-**B. Boumoud; A.A. Yahyaoui; T. Boumoud; and A. Debache; *Journal Of Chemical and Pharmaceutical Research*; **2012**, 4, 795-799.

**4°/-** Boudjemaa Boumoud; Ahmed Yahyaoui; Imène Menana; Taous Boumoud; and Abdelmadjid Debache; "Chile saltpeter catalyzed one-pot synthesis of 3,4-dihydro-2(1H)-pyrimidinones and -thiones"; *Elixir Organic Chemistry*; **2012**, 49, 10038-10041.

**5°/-**Radia Tafer; Raouf Boulcina; Bertrand Carboni and Abdelmadjid Debache; "Cd(NO<sub>3</sub>)<sub>2</sub>.4H<sub>2</sub>O catalyzed one-potsynthesis of 1,4-dihydropyridine and polyhydroquinoline derivatives through the Hantzsch multicomponent condensation"; *Journal of The Chinese Chemical Society*, **2012**, 39, 1555-1560.

**6°/-**Sara Nemouchi; Raouf Boulcina; Bertrand Carboni and Abdelmadjid Debache; *Comptes Rendus Chimie*; "Phenylboronic acid as an efficient and convenient catalyst for a three-component synthesis of tetrahydrobenzo[b]pyrans"; **2012**, 15, 394-397.

**7°/-**Wassima Ghalem; Raouf Boulcina and Abdelmadjid Debache; "Synthesis of some new 1,4-dihydropyridine derivatives through a facile one-pot Hantzsch condensation catalyzed by triethylamine"; *Chinese Journal of Chemistry*; **2012**, 30, 733-737.

**8°/-** Boudjemaa Boumoud; Imène Menana; Taous Boumoud; and Abdelmadjid Debache; "A catalytic dual-activation approach to the significant 3,4-dihydropyrimidin-2(1H)-one system via the Bigineli reaction"; *Letters in Organic Chemistry*, **2013**, 10, 8-11.

**9°/-**Wassima Ghalem. Ramzy Hilal Sedrati; Nadjiba Benloucif; Fabienne Berrée; Boudjemaa Boumoud and Abdelmadjid Debache; "Triphenylphosphine-catalyzed one-pot three component synthesis of tetrahydrobenzo[b]pyrans in aqueous media"; *Letters In Organic Chemistry*, **2013**, 10, 150-154.

**10°/-** Imène Sehout, Raouf Boulcina, Boudjemaa Boumoud, Fabienne Berrée, Bertrand Carboni, and Abdelmadjid Debache, "Ascorbic acid-Catalyzed One-Pot Three-Component Biginelli Reaction: A Practical and Green Approach towards Synthesis of 3,4-dihydropyrimidin-2(1H)-ones/thiones", *Letters In Organic Chemistry*; **2013**, 10(7),463-467.

**11°/-**Chamseddine Derabli, Raouf Boulcina, Sofiane Bouacida, Hocine Merazig and Abdelmadjid Debache, "2-(4-chlorophenyl)-4-phenyl-1,2-dihydroquinazoline", *Acta Crystallographica Section E*, **2013**, E69, 1653-1654.

**12°/-** Chamseddine Derabli, Raouf Boulcina, Sofiane Bouacida, Hocine Merazig and Abdelmadjid Debache, "2-(4-chlorophenyl)-4-phenyl-1,2-dihydroquinazoline", *Acta Crystallographica Section E*, **2013**, E69, 1653-1654.

**13°/-** Chamseddine Derabli, Raouf Boulcina, Sofiane Bouacida, Hocine Merazig and Abdelmadjid Debache, "2-(2-chloro-8-methylquinolin-3-yl)-4-phenyl-1,2-dihydroquinazoline", *Acta Crystallographica Section E*, **2013**, E69, 1719-1720.

**14°/-** Chamseddine Derabli,<sup>a</sup> Raouf Boulcina,<sup>a,\*</sup> Gilbert Kirsch,<sup>b</sup> Bertrand Carboni,<sup>c</sup> and Abdelmadjid Debache<sup>a</sup>, DMAP-Catalyzed mild and efficient synthesis of 1,2-dihydroquinazolines via a one-pot three-component protocol; *Tetrahedron Letters*, **2014**, 55, 200-204.

**15°/-** Imène Amine Khodja; Wassima Ghalem; Zineb Dehimat; Raouf Boulcina; Bertrand Carboni; Abdelmadjid Debache. Solvent-free Synthesis of Dihydropyridines and Acridinediones Via a Salicylic Acid-catalyzed Hantzsch Multicomponent Reaction, *Synthetic Communications*, **2014**, 44, 959-967.

**16°/-** Boudjemaa Boumoud; Amina Debache, Taous Boumoud; Raouf Boulcina; Abdelmadjid Debache. Aqua Mediated One-pot Synthesis of 2-aminotetrahydrobenzo[b]pyran Derivatives Catalyzed by Mg(NO<sub>3</sub>)<sub>2</sub>.6H<sub>2</sub>O. *Letters In Organic Chemistry*, **2014**, 11, 475-479.

**17°/-** Imène Amine Khodja; Raouf Boulcina; Abdelmadjid Debache. Copper(II)acetate promoted facile synthesis of dihydropyrimidinone derivatives via a solvent free Biginelli multicomponent reaction. *Journal of Chemical and Pharmaceutical Research*, **2014**, 6, 1040-1045.

**18°/-** Louisa Chouguiat; Raouf Boulcina; Abdelmadjid Debache. Bi(OTf)<sub>3</sub> as a powerful and efficient catalyst for the synthesis of highly functionalized piperidines. *Journal of Chemical and Pharmaceutical Research*, **2014**, 6, 79-85.

**19°/-** Louisa Chouguiat; Raouf Boulcina; Sofiane Bouacida ; Hocine Merazig ; Abdelmadjid Debache. 4-(2-nitobenzyl)-3-phenyl-3,4-benzoxazin-2-ol. *Acta Crystallographica Section E*, **2014**, 70, 863-864.

**20°/-** Louisa Chouguiat, Raouf Boulcina, Bertrand Carboni, Albert Demonceau, Abdelmadjid Debache. A new and efficient one-pot synthesis of 2-hydroxy-1,4-dihydrobenzoxazines via a three-component Petasis reaction. *Tetrahedron Letters*, **2014**, 55, 5124-5128.

**21°/-** Imène Amine Khodja; Raouf Boulcina; Abdelmadjid Debache. Novel one-pot synthesis of 3,4-dihydropyrimidin-2(1H)-ones and 3,4,7,8-tetrahydroquinazoline-2,5-diones using pyridinium *p*-toluenesulfonate as catalyst. *Letters In Organic Chemistry*, **2015**, *12*, 77-84.

**22°/-** Besma Saoudi , Abderrahmane Teniou , Abdelmadjid Debache , Thierry Roisnel , Jean-François Soule', Henri Doucet a,\* . Cyclisation reaction between 3-methylquinoxaline-2-thione and benzaldehydes into 3-benzyl-2-aryl-thieno[2,3-b] quinoxaline promoted by Brønsted acids. *Comptes Rendus Chimie*, **2015**, *18*, 805-815.

**23°/-** Besma Saoudi, Abdelmadjid Debache, Jean-François Soulé and Henri Doucet. Synthesis of heteroarenes dyads from heteroarenes and heteroarylsulfonyl chlorides via Pd-catalyzed desulfurative C–H bond heteroarylations. *RCS Advances*, **2015**, *5*, 65175–65183.

**24°/-** Amine Khodja Imène, Ghalem Wassima, Boulcina Raouf, Boumoud Taous and Debache Abdelmadjid. Phenylboronic acid-catalyzed a four component synthesis of pyrano[2,3-c]pyrazole derivatives in aqueous media: an eco-friendly method. *Der Pharma Chemica*, **2015**, *7*, 175-180.

**25°/-** Faiza Boukezzoula, Taoues Boumoud, Boudjemaa Boumoud and Abdelmadjid Debache. An Efficient Organocatalyst for Environmentally Benign Synthesis of Pyranopyrazole Derivatives in Aqueous Medium. *Letters in Organic Chemistry*, **2015**, *12*, 734-740.

**26°/** Faiza Boukezzoula, Taoues Boumoud, Boudjemaa Boumoud and Abdelmadjid Debache. Multicomponent reaction, ionic liquid and aqua mediated: a perfect synergy for eco-compatible heterocyclic synthesis. *Chemical Science Transactions*, **2015**, *4(2)*, 611-619.

**27°/-** Imène Amine Khodja, Amina Fisli, Oumeima Lebour, Raouf Boulcina, Boudjemaa Bomoud and Abdelmadjid Debache. Four-component synthesis of pyrano[2,3-c]pyrazoles catalyzed by triphenylphosphine in aqueous medium. *Letters In Organic Chemistry*, **2016**, *13*, 85-91.

**28°/-** Chamseddine Derabli, Sara Mahdjoub, Raouf Boulcina, Boudjemaa Boumoud, Hocine Merazig, Abdelmadjid Debache. [C8dabco]Br: a mild and convenient catalyst for intramolecular cyclization of 2-aminochalcones to the corresponding 2-aryl-2,3-dihydroquinolin-4(1H)-ones. *Chemistry of Heterocyclic Compounds*, **2016**, *52*, 99-103.

**29°/-** Nora Chouha, Taoues Boumoud, Imane Tebanel, Boudjemaa Boumoud and

Abdelmadjid Debache. An efficient one-pot synthesis of 2,4,5-trisubstituted imidazole catalysed by citric acid. *Der Pharma Chemica*, **2016**, *8*, 202-206.

**30°/-** Imène Amine Khodja, Raouf Boulcina, Boudjemaa Boumoud, Taoues Boumoud, Abdelmadjid Debache. NaH<sub>2</sub>PO<sub>4</sub> catalyzed a three-component 4-arylidene-3-methylisoxazol-5(4H)-ones synthesis in solvent-free conditions. *Der Pharma Chemica*, **2016**, *8(8)*, 97-101.

**31°/-** Sara Mahdjoub, Chamseddine Derabli, Raouf Boulcina, Gilbert Kirsch, Abdelmadjid Debache. Design and synthesis of novel 2-hydroxy-1,4-benzoxazine derivatives through three-component Petasis reaction catalyzed by pyridinium toluene-*p*-sulfonique. *Journal of Chemical Research*, **2016**, *40*, 449-452.

**32°/-** Chaima Boureghda, Imène Amine Khodja, Bertrand Carboni, Raouf Boulcina, Kermiche Oumeima and Abdelmadjid Debache. A Facile One-Pot and Green Multi-Component Synthesis of 2-Amino-4H-pyrans Promoted by Pyridinium *p*-Toluenesulfonate in Aqueous Medium. *Letters In Organic Chemistry*, **2016**, *13 (7)*, 482-490.

**33°/-** Amel Zetchi, Boudjemaa Boumoud, Taoues Boumoud and Abdelmadjid Debache. PEG Mediated Eco-Friendly One Pot Synthesis of  $\beta$ -Amino Carbonyl Compounds under Ambient Temperature Conditions. *Der Pharma Chemica*, **2016**, *8(12)*, 84-187.

**34°/-** Adil Ziadi Chibane, Boudjemaa Boumoud, Taoues Boumoud and Abdelmadjid Debache. Aluminum Acetylacetonate as a Recyclable Organometallic Catalyst for One-Pot Four-Component Synthesis of Pyranopyrazoles *Der Pharma Chemica*, **2016**, *8(13)*, 35-40.

**35°/-** Imane Tebabel, Taous Boumoud, Boudjemaa Boumoud and Abdelmadjid Debache. Quaternary ammonium ionic liquid as a dual solvent-catalyst in Biginelli reaction. *Letters In Organic Chemistry*, **2016**, *13 (7)*, 526-530.