

Saïd El Kazzouli

Associate Professor at the Euro-Mediterranean University of Fes, Morocco.

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EDUCATION

- 2004: **Ph.D. in Organic Chemistry**
University of Orléans, Institute of Organic and Analytical Chemistry, Orléans, France.
Supervisor: Professor Gérard Guillaumet, President of University of Orléans in collaboration with Professor Abderrahim Mouaddib University of Cadi Ayyad.
Dissertation Title: "Solid support synthesis of various heterocycles from a common synthon. Development and pharmacological evaluation of imidazo[1,2-*a*]pyridine derivatives as melatonin analogues", Expertise: multi-step synthesis, imidazo[1,2-*a*]pyridines, melatonin analogues, palladium and copper-catalyzed reactions, solid support synthesis, microwave synthesis.
- 2000: **M.S. in Organic Chemistry**
Universities of Orléans, Paris V and Paris XI
Thesis Title: "Support solid synthesis of large C-terminal peptide aldehyde: application to chemoselective ligation". Expertise: solid phase synthesis, peptide chemistry.
Centre National de la Recherche Scientifique (CNRS), Centre de Biophysique Moléculaire, Orléans, France.
Supervisor: Agnès Delmas, Ph.D.
- 1997: **B.S. in Chemistry**, Faculté des Sciences et Techniques (FST), Beni-Mellal, Morocco.

EXPERIENCE

- 2013-Present: **Euro-Mediterranean University of Fes (UEMF), Morocco.** Design and synthesis of bioactive molecules, drugs delivery by macromolecules, environmental chemistry, green chemistry, phosphate forth flotation and catalysis.
- 2009-2013: **Institute of Nanomaterials and Nanotechnology**, Moroccan Foundation for Advanced Sciences, Innovations and Research (MAScIR), Rabat, **Morocco.** Design and synthesis of bioactive molecules, drugs delivery by dendrimers, phosphate forth flotation, homogenous catalysis.
- 2006-2009: **National Institutes of Health (NIH), National Cancer Institute (NCI)**, Frederick, Maryland, Centre for Cancer Research, Laboratory of Medicinal Chemistry, **USA.**
Supervisor: Victor E. Marquez, Ph.D., Chief.
Postdoctoral Fellow (IRTA Fellow): Rational drug design and multi-step synthesis of antitumor agents, purification and characterization of biologically active diacylglycerol-lactones (DAG-lactones). Expertise: solid phase synthesis, parallel synthesis, combinatorial chemistry, diacylglycerol-lactones (DAG-lactones), protein kinase C (PKC), C1-domains.
- 2004-2006: **University of Orléans**, Institute of Organic and Analytical Chemistry, Orléans, **France.**
2005-2006: Supervisor: Professor Sabine Berteina-Raboin,
Postdoctoral Fellow in Heterocyclic Chemistry: Synthesis of herbicide, Expertise: indole chemistry, anionic reactions, in collaboration with Syngenta, Basel, **Switzerland.**
2005: Supervisor: Professor Luigi Agrofroglio,
Postdoctoral Fellow in Nucleosides Chemistry: Synthesis of new antiviral drugs, Expertise: nucleosides chemistry, palladium-catalyzed reactions, solid support synthesis, microwave synthesis. **France**
2004: Supervisor: Professor Gérard Guillaumet, President
Postdoctoral Fellow in Heterocyclic Chemistry: Synthesis of new pyrimido[4,5-*b*][1,4]oxazines, Expertise: pyrimido[4,5-*b*][1,4]oxazines, palladium-catalyzed *N*-arylation, microwave synthesis. **France**

MANAGEMENT AND TEACHING

- ◆ Supervision of practical work and teaching assistant in organic chemistry at the “Institut Universitaire de Technologie (IUT)”, Orléans, **France (2003 to 2005)**.
- ◆ Supervision of practical work and teaching assistant in combinatorial chemistry (DESS and Master 2) at the Institut de Chimie Organique et Analytique (ICOA), Orléans, **France (2003 to 2005)**.
- ◆ Assistant research manager of chemical science degree student. Subject: "Solid support synthesis of imidazo[1,2-*a*]pyridines", **France (2003)**.
- ◆ Assistant research manager of PhD student (Latifa Bouissane). Subject: "Synthesis and biological evaluation of new substituted indazoles", **France (2003 to 2004)**
- ◆ Assistant research manager of PhD student (Jamal Koubachi). Subject: "Design and synthesis of new imidazo[1,2-*a*]pyridines", **France (2004 to 2006)**.
- ◆ Supervision of PhD students (Nabil El Brahmi, Ali Ben-Yahia, Houda Mâati) **(2009 to 2013)**
- ◆ Supervision of a PhD student (Moahammed Naas) **(2012 to present)**
- ◆ Supervision of Post-docs (Nabil El Brahmi and Joachim Caron) **(2013-2014)**
- ◆ Supervision of a PhD student (Abdelmoula El Abouchi) **(Since March 2015)**.
- ◆ Supervision of a PhD student (Soukaina Farasse, Cotutelle with Orleans University, France scholarship) **(Since December 2015)**.
- ◆ Supervision of a PhD student (Khadija Gambouz, Supervision with Hassan II University, CNRST scholarship) **(Since December 2015)**.
- ◆ Teaching of general chemistry at INSA Euro-Med, UEMF **(2015)**
- ◆ Teaching of analytical chemistry for Master Students at the Euro-Mediterranean Faculty of Engineering, UEMF **(2016)**.
- ◆ Since **2014**, Responsible of the Master on environmental engineering at the Euro—Mediterranean University of Fes.
- ◆ **2015-2016**, Preparation and submission of the accreditation document for a Master on environmental engineering and water management”. In collaboration with École nationale des ponts et chaussées de Paris.

SKILLS

- Language: Fluent in Arabic, French and English.
- Broad knowledge of synthetic organic chemistry including:
 - Multi-step synthesis in organic chemistry.
 - Peptide and nucleoside chemistry, solid support synthesis and combinatorial chemistry, microwave synthesis.
 - Retrosynthetic analysis and access to target molecules of biological interest.
 - Interpretation of biological results and writing publications.
 - Knowledge and understanding of modern analytical technique: NMR (1 and 2D), IR, MS, HPLC.
 - Proficient in computer access of chemical information database (Chemical Abstracts, Beilstein, SciFinder, Win NMR, Pack Office, Endnote, Chemdraw).

PUBLICATIONS

1. Functionalization of Indazoles by Means of Transition Metal-Catalyzed Cross-Coupling Reactions. **El Kazzouli, S.**; Guillaumet, G. **2016**, *Tetrahedron*, under press (**IF = 2.64**)
2. A novel class of ethacrynic acid derivatives as promising drug-like potent generation of anticancer agents with established mechanism of action. Mignani, S. El Brahmi, N. **El Kazzouli, S.**; Eloy, L.; Courilleau, D.; Caron, J. S. Bousmina, M. Caminade, A-M. Cresteil, T. Majoral, J-P. *Eur. J. Med. Chem.* **2016**, 122, 656. (**IF = 3.9**)

3. Synthesis and characterization of nanostructured palladium perovskites: Evaluation of their catalytic activity in cross-coupling chemistry, Essoumhi, A. Solhy, A. **El Kazzouli, S.** *J. Mater. Environ. Sci.* **2016**, 7, 1080. (IF = 1.2)
4. Palladium-catalyzed oxidative direct C3- and C7-alkenylations of indazoles: Application to the synthesis of Gamendazole. Naas, M. **El Kazzouli, S.**; Essassi, EM. Bousmina, M.; Guillaumet, G. *Org. Lett.* **2015**, 17, 4320. (IF = 6.4)
5. Advances in direct C-H arylation of 5,5, 6,5 and 6,6- fusedheterocycles containing heteroatoms (N, O, S). **El Kazzouli, S.**; Koubachi, J.; El Brahmī, N.; Guillaumet, G. *RSC Advances*, **2015**, 7, 3915. (IF = 3.84)
6. Investigations in dendrimer space reveal solid and liquid tumor growth-inhibition by original phosphorus-based dendrimers and corresponding monomers and dendrons with ethacrynic acid motifs. El Brahmī, N.; Mignani, S.; Caron, J.; **El Kazzouli, S.**; Bousmina, M.; Caminade, A-M.; Cresteil, T.; Majoral, J-P. *Nanoscale*, **2015**, 7, 3915. (IF = 7.4)
7. Palladium-catalyzed direct C7-arylation of substituted indazoles. Naas, M.; **El Kazzouli, S.**; Essassi, E. M.; Bousmina, M.; Guillaumet, G. *J. Org. Chem.* **2014**, 79, 7286. (IF = 4.6)
8. Ceria-supported copper nanoparticles: A highly efficient and recyclable catalyst for N-arylation of indole. Amadine, O.; Maati, H.; Abdelouhadi, K.; Fihri, A.; **El Kazzouli, S.**; Len, C.; El Bouari, A.; Solhy, A. *Journal of Molecular Catalysis A: Chemical*, **2014**, 395, 409. (IF = 3.7)
9. Functionalization of imidazo[1,2-a]pyridines by means of metal-catalyzed cross-coupling reactions – A review. Koubachi, J.; **El Kazzouli, S.**; Bousmina, M.; Guillaumet, G. *Eur. J. Org. Chem.* **2014**, 24, 5119. (IF = 3.03)
10. Review on Palladium-containing perovskites: Synthesis, physico-chemical properties and applications in catalysis. Essoumhi, A.; **El Kazzouli, S.**; Bousmina, M. *J. Nanosci. Nanotechnol.* **2014**, 14, 2012. (IF = 1.56)
11. Dendrimer Space Exploration: Inhibition of protein-protein interactions for the next generation of pharmaceuticals. Mignani, S.; **El Kazzouli, S.**; Bousmina, M.; Majoral, J-P. *Chem. Rev.* **2014**, 114, 1327. (IF = 46.7)
12. Dendrimer space concept for innovative nanomedicine: a futuristic vision in medicinal chemistry. Mignani, S.; **El Kazzouli, M.**; Bousmina, M.; Majoral, *Progress in Polymer Science*, **2013**, 38, 993. (IF = 26.84)
13. Original multivalent copper(II)-conjugated phosphorus-dendrimers and corresponding mononuclear copper(II) complexes with anti-tumoral activities. El Brahmī, N. **El Kazzouli, S.**; Mignani, S. Essassi, E. Aubert, G. Laurent, R. Caminade, A-M. Bousmina, M. Cresteil, T. Majoral, J-P. *Molecular Pharmaceutics*, **2013**, 10, 1459. (IF = 4.4)
14. Expand classical drug administration ways by emerging routes using dendrimer drug delivery systems: a concise overview. Mignani, S.; **El Kazzouli, M.**; Bousmina, M.; Majoral, J-P. *Advanced Drug Delivery Reviews*, **2013**, 65, 1316. (IF = 15.04)
15. Copper in dendrimer's synthesis and applications of copper dendrimer systems in catalysis: a concise overview. El Brahmī N.; **El Kazzouli, M.**; Mignani, S.; Bousmina, M.; Majoral, J-P. *Tetrahedron*, **2013**, 69, 3103. (IF = 2.64)
16. Microwave-assisted Suzuki-Miyaura cross-coupling of free (NH) 3-bromoindazoles. Benyahia, A.; Naas, M.; El Brahmī, N.; **El Kazzouli, S.**; Essassi, EM. Majoral, J-P. Guillaumet, G. *Current Org. Chem.* **2013**, 17, 304. (IF = 2.16)
17. Direct C3-Arylations of 1H-Indazoles. Benyahia, A. Naas, M. **El Kazzouli, S.**; Essassi, EM. Guillaumet, G. *Eur. J. Org. Chem.* **2012**, 36, 7075. (IF = 3.03)

18. From Metallo drugs to Metallo dendrimers for Nanotherapy in Oncology: a Concise Overview. **El Kazzouli, S.**; El Brahmi, N.; Mignani, S.; Bousmina, M.; Zablocka, M.; Majoral, J-P. *Current Med. Chem.* **2012**, 4995. (IF = 3.85)
19. Molecular basis for the failure of the "atypical" C1 domain of Vav1 to bind diacylglycerol/phorbol ester. Gerzy, T.; Peach, M. L.; **El Kazzouli, S.**; Sigano, D. M.; Lewin N. E.; Marquez, V. E.; Blumberg, P. M. *J. Bio. Chem.* **2012**, 287, 13137. (IF = 4.4)
20. Synthesis and fonctionnalisation of imidazo[1,2-*a*]pyridines and imidazo[1,2-*a*]pyrimidines on solid phase using Suzuki-Miyaura cross-coupling reactions. **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Lett. Org. Chem.* **2012**, 10, 118. (IF = 0.67)
21. Dendrimer therapeutics: covalent and ionic attachments. **El Kazzouli, S.**; Mignani, S.; Bousmina, M.; Majoral, J-P.; *New J. Chem.* **2012**, 36, 227. (IF = 3.08)
22. Design and synthesis of 2-phenylimidazo[1,2-*a*]pyridines as a novel class of melatonin receptor ligands. **El Kazzouli, S.**; Griffon du Bellay, A.; Berteina-Raboin, S.; Delagrangue, P.; Caignard, D.-H. Guillaumet, G.; *Eur. J. Med. Chem.* **2011**, 46, 4252. (IF = 3.45)
23. *N*-methyl-substituted fluorescent DAG-indololactone isomers exhibit dramatic differences in membrane interactions and biological activity. Gal N.; Kolusheva S.; Kedei N.; Telek A.; Naeem T. A.; Lewin N. E.; Lim, L.; Mannan P.; Garfield S. H.; **El Kazzouli, S.**; Sigano, D. M.; Marquez, V. E.; Blumberg, P. M.; Jelinek R. *ChemBioChem.* **2011**, 12, 2331. (IF = 3.09)
24. Membrane-surface anchoring of charged diacylglycerol-lactones correlates with biological activities. Raifman, O.; Kolusheva, S.; **El Kazzouli, S.**; Sigano, D. M.; Kedei, N.; Lewin, N. E.; Lopez-Nicolas, R.; Ortiz-Espin, A.; Gomez-Fernandez, J. C.; Blumberg, P. M.; Marquez, V. E.; Corbalan-Garcia, S.; Jelinek. R. *ChemBioChem.* **2010** 11, 2003. (IF = 3.09)
25. Conformationally constrained analogues of diacylglycerol. 30. An investigation of diacylglycerol-lactones containing heteroaryl groups reveals compounds with high selectivity for Ras Guanyl Nucleotide-Releasing Proteins. **El Kazzouli, S.**; Lewin, N. E.; Blumberg, P. M.; Marquez V. E. *J. Med. Chem.*, **2008**, 51, 5198. (IF = 5.45)
26. New and efficient Pd(0)-mediated microwave-assisted direct C-3 alkenylation of imidazo[1,2-*a*]pyridines. Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Synthesis*, **2008**, 2537. (IF = 2.7)
27. Conformationally constrained analogues of diacylglycerol (DAG). 29. Cells sort DAG-lactone chemical zip codes to produce diverse and selective biological activities. Duan, D.; Sigano, D. M.; Kelley, J. A.; Lai, C.; Lewin, N. E.; Kedei, N.; Peach, M. L.; Lee, J.; Abeyweera, P. T.; Rotenberg A. S.; Kim, H.; Kim, H. Y.; **El Kazzouli S.**; Chung, J-U.; Howard Y. A.; Matthew Y. R.; Alyson B.; Colburn N. H.; Friedman, A. H.; Truman, P. J.; Parrish D. H.; Deschamps J. R.; Perry, N. A.; Surawski, J. R.; Blumberg, P. M.; Marquez, V. E. *J. Med. Chem.*, **2008**, 51, 5371. (IF = 5.45)
28. Efficient microwave-assisted Suzuki-Miyaura cross-coupling reaction of 6-halogenoimidazo[1,2-*a*]pyridines. Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *J. Mar. Chim. Heterocycl.* **2008**, 7, 1. (IF = 0.82)
29. Efficient and regioselective functionalization of imidazo[1,2-*b*]pyridazines via palladium-catalyzed cross-coupling reaction and S_NAr. Akkaoui, A.; Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Tetrahedron Letters*, **2008**, 49, 2472. (IF = 2.4)
30. Development of new access roads to the imidazo[1,2-*b*]pyridazines di and trisubstituted. El Akkaoui, A.; Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Scientific study & research* **2008**, 9, 259.

31. Synthesis of polysubstitued imidazo[1,2-*a*]pyridines via microwave-assisted one-pot cyclization/Suzuki coupling/palladium-catalyzed heteroarylation. Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *J. Org. Chem.* **2007**, *72*, 7650. (IF = 4.6)
32. An efficient synthesis of camalexin analogous. Chigr, M.; Oukani, E. H.; **El Kazzouli, S.**; Mouaddib, A.; Guillaumet, G. *Scientific Study & Research* **2007**, *8*, 111.
33. Supported synthesis and fonctionnalization of 2'-deoxyuridine by Suzuki-Miyaura cross-coupling. **El Kazzouli, S.**; Berteina-Raboin, S.; Agrofoglio, L. *Nucleosides, Nucleotides, Nucleic Acids*, **2007**, *26*, 1395. (IF = 1.02)
34. Regioselective palladium-catalyzed arylation and heteroarylation of imidazo[1,2-*a*]pyridines. Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Synlett*, **2006**, 3237. (IF = 2.42)
35. A mild and selective method for *N*-Boc deprotection by Na₂CO₃. **El Kazzouli, S.**; Koubachi, J.; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Tetrahedron Letters*, **2006**, *47*, 8575. (IF = 2.4)
36. Synthesis and functionalization of 2-hydroxypyrimido[4,5-*b*][1,4]oxazine. **El Kazzouli, S.**; Lavecchia, G.; Berteina-Raboin, S.; Guillaumet, G. *Tetrahedron Letters*, **2006**, *47*, 4437. (IF = 2.4)
37. Nouvelle voies d'accès aux imidazo[1, 2*a*]pyridines substituées en 3 et 6 par des alcényles et (hétéro)aryle via des réactions pallado-catalysées. Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Scientific study & research* **2006**, *7*, 51.
38. Fonctionnalisation "one pot" des positions 3 et 6 d'imidazo[1,2-*a*]pyridines sous irradiation micro-ondes. Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Scientific study & research* **2006**, *7*, 895.
39. Une méthode simple, douce et efficace de déprotection du *N*-boc par Na₂CO₃. Koubachi, J.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Scientific study & research* **2006**, *7*, 893.
40. Synthesis and biological evaluation of *N*-(7-indazolyl)benzenesulfonamide derivatives as potent cell cycle inhibitors. Bouissane, L.; **El Kazzouli, S.**; Rakib, E. M.; Khouili, M.; Guillaumet, G. *Bioorg. Med. Chem.*, **2006**, *14*, 1078. (IF = 2.8)
41. Solution and solid phase functionalization of imidazo[1,2-*a*]pyridines. **El Kazzouli, S.**; Berthault, A.; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Lett. Org. Chem.* **2005**, *2*, 184. (IF = 0.67)
42. New and efficient synthesis of bi- and trisubstitued indazoles. Bouissane, L.; **El Kazzouli, S.**; Leger, J.-M.; Jarry, C.; Rakib, E.M.; Khouili, M.; Guillaumet, G. *Tetrahedron*, **2005**, *61*, 8218. (IF = 2.64)
43. Synthesis of 4-substitued and 3, 4-disubstitued indazole derivatives by palladium cross-coupling reactions. **El Kazzouli, S.**; Khouili, M.; Bouissane, L.; Guillaumet, G. *Tetrahedron Letters*, **2005**, *46*, 6163. (IF = 2.4)
44. Nouvelle synthèse de thiazoles sur résine clivable par transestérification. **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *J. Mar. Chim. Heterocycl.* **2004**, *3*, 1. (IF = 0.82)
45. Synthesis and 1,3-dipolar cycloaddition reactions of new pyrazolo[1,5,4-*ef*][1,5]benzodiazepines. Bouissane, L.; **El Kazzouli, S.**; Rakib, E. M.; Khouili, M.; Hannioui, A.; Benchidmi, M.; Essassi, E. M.; Guillaumet, G. *Heterocycles*, **2004**, *63*, 1651. (IF = 1.08)

46. Solid-phase synthesis of imidazo[1,2-*a*]pyridines and imidazo[1,2-*a*]pyrimidines. **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Tetrahedron Letters*, **2003**, 44, 6265. (IF = 2.4)
47. Solid support synthesis of 2,4-disubstituted thiazoles and aminothiazoles. **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Tetrahedron Letters*, **2002**, 43, 3193. (IF = 2.4)
48. Influence of polar support for the synthesis of large C-terminal peptide aldehyde: application to chemoselective ligation. Lelièvre, D.; Turpin, O.; **El Kazzouli, S.**; Delmas, A. *Tetrahedron*, **2002**, 58, 5525. (IF = 2.64)

Publications "Proceeding"

49. Drug-dendrimers: an overview. Mignani, S.; **El Kazzouli, S.**; Bousmina, M.; Majoral, J-P.; *Polymer Processing Society* **2011**.
50. Synthesis and characterization of new organophilic clays: Preparation of polystyrene/clay nanocomposites. Ben-Yahia, M. A.; **El Kazzouli, S.**; Essassi, E. M.; Bousmina, M. *Polymer Processing Society* **2011**.

BOOK CHAPTERS

1. First-in-class anticancer nanoparticle copper(II) phosphorus dendrimers as proapoptotic Bax activators, Serge Mignani, Saïd El Kazzouli, Nabil El Brahimi, Thierry Cresteil and Jean-Pierre Majoral, **2016** under press.
2. Dendrimer space concept: a futuristic vision in nanomedicine to develop new drugs, Serge Mignani, Saïd El Kazzouli and Jean-Pierre Majoral, **2016** under press.

PATENT

Novel imidazopyridine derivatives having an affinity with respect to melatonin receptors, method for the preparation thereof and pharmaceutical composition containing said derivatives.

PCT, Int. Appl. WO 027474, 2006; *Chem. Abstr.* **2006**, 144, 254132.

Guillaumet, G.; Berteina-Raboin, S.; **El Kazzouli, S.**; Delagrangé, P.; Caignard, D.-H.

RECENT CONFERENCES

1. **Plenary lecture** : *Copper(II)-conjugated phosphorus dendrimers: Synthesis and antitumoral activities*. 1ère Rencontre Internationale de Chimie Moléculaire, Chimométrie et Applications (1ère RICMCA), 29-30 Mai **2014** à la FST de Beni Mellal, Morocco.
2. **Invited lecture** : Présentation des applications biotechnologiques & nanotechnologiques dans le domaine pharmaceutique et Drug Design, Journée de la Biotechnologie, 19 March **2015**, CNRST, Rabat, Morocco.
3. **Invited lecture** : Functionalisation of indazoles by direct arylation and oxydative alkenylation, 30 June **2015**, Centre international universitaire pour la recherche, Orleans, France.
4. **Invited lecture** : Synthesis of phosphorus dendrimers functionalized by copper or ethacrynic acid derivatives: Evaluation of their anticancer activities. 08 July **2015**, Institut de Chimie Organique et Analytique, University of Orléans, France.
5. **Invited lecture** : Direct C-H arylation and alkenylation of indazoles. 11 March **2016**, 5th Spanish-Moroccan Symposium on Organic Chemistry, Casablanca, Morocco.
6. **Invited lecture** : Fonctionnalisation de l'imidazo[1,2-*a*]pyridine et de l'indazole par des réactions d'arylation directe et d'alcénylation oxydative, 6^{ème} Rencontre Internationale sur la Chimométrie, la Qualité et la Chimie Moléculaire, 22 April **2016**, Beni Mellal, Morocco.
7. **Oral presentation** : Synthesis of new drug-phosphorus dendrimer conjugates and their evaluation as anticancer agents 28 July **2016**, Lyon, France.

ORAL AND POSTER PRESENTATIONS

- ✓ *Solid-phase synthesis of unprotected peptide bearing two aldehydes for orthogonal peptide ligation by oxime bond P128*, 26th, European peptide symposium, 10-15 September, **2000, Montpellier**, (France), Lelièvre, D.; **El Kazzouli, S.**; Turpin, O.; Buré, C.; Delmas, A.
- ✓ *Synthèse de chimères peptidiques par ligation chimiosélective via deux liaisons oximes.*, Symposium de chimie organique en centre-auvergne-Limousin. 04-07 March, **2001, La Bourboule (Puy de Dôme)**, (France), Lelièvre, D.; Buré, C.; **El Kazzouli, S.**; Turpin, O.; Laot, F.; Chabane. ; H.; Delmas, A.
- ✓ *Synthèse de différents hétérocycles sur support solide.*, Science en sologne, (France), 14-15 June, **2001, Orléans, El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Synthèse de thiazoles et d'imidazo[1,2-a]pyridines sur support solide.*, Journées de chimie organique (JCO), **Paris**, (France), 11-13 September, **2001, Palaiseau-Paris, El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Synthèse de thiazoles, d'imidazo[1,2-a]pyridines et d'imidazo[1,2-a]pyrimidines sur support solide.*, X^{EMES} Conférences Europeennes du Groupement des Pharmacochimistes de l'Acr Atlantique (GP2A), 29-30 October, **2001, Nantes**, (France), **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Synthèse de nouveaux composés hétérocycliques sur support solide*, Congrès National de Chimie Hétérocyclique, 8-9 May, **2002, Kenitra** (Morocco), Belkhouya, N.; **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Nouvelles voies de synthèse sur support solide.*; Le défi des nouvelles technologies en chimie moléculaire., 15-18 April, **2002, Rennes**, (France), **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Nouvelles voies de synthèse sur support solide.*; 2^{ème} Colloque Franco-Roumain de Chimie Appliquée (COFrRoCA) 10-11 October, **2002, Bacău** (Rumania), **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Fonctionnalisations de la position 3 d'imidazo[1,2-a]pyridine et d'imidazo[1,2-a]pyrimidine, optimisation et adaptation de la synthèse en phase solide et sous irradiations micro-ondes*, SyCOCAL II- Pierrefitte, from 30 September to 3 October, **2002, Limoges**, (France), **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Synthèse de longs peptides aldéhyde sur support solide : Application à la synthèse chimiosélective*, SyCOCAL II- Pierrefitte, from 30 September to 3 October **2002, Limoges**, (France), Lelièvre, D.; **El Kazzouli, S.**; Turpin, O.; Chabane, H.; Delmas, A.
- ✓ *Synthèse en phase solide d'imidazo[1,2-a]pyridines et pyrimidines diversement substituées en 2 et 3 via des couplages catalysés par le palladium de type Suzuki et Sonogashira*, 10^{ème} Journée Jeunes Chercheurs, January, **2003, Paris**, (France), **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Synthèse sur support solide d'imidazo[1,2-a]pyridines et pyrimidines (cyclisation sous irradiation micro-ondes) et fonctionnalisation des positions 3 et 6 via des couplages catalysés par le palladium*, SECO, May, **2003, Montpellier**, (France), **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
- ✓ *Synthèse sur support solide d'imidazo[1,2-a]pyridines et pyrimidines (cyclisation sous irradiation micro-ondes) et fonctionnalisation des positions 3 et 6 via des couplages catalysés par le palladium*, XII^{èmes} Conférence Européennes du Groupement des Pharmacochimistes de l'Arc Atlantique GP2A, 1-3 October, **2003, La Rochelle**, (France), **El Kazzouli, S.**; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G.
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- ✓ *Supported synthesis and functionalization of 2'-deoxyuridine by Suzuki-Miyaura cross-coupling*, XVII International Roundtable (IRT), September **2006, Bern** (Switzerland). **El Kazzouli, S.**; Berteina-Raboin, S.; Agrofoglio, L.
- ✓ *Synthesis of DAG-lactones containing heterocyclic moieties: Small focused libraries in search of C1-specific domain interactions*, 234th ACS National Meeting, August 19-23, **2007, Boston, MA**, (USA). **El Kazzouli, S.**; Lewin, N. E.; Blumberg, P. M.; Marquez V. E.
- ✓ *Analytical strategies for the rapid characterization of diacylglycerol-lactone combinatorial libraries utilizing mass spectrometry*. 55th annual conference of the American society for mass spectrometry, June, **2007, Indianapolis, IN**, (USA). Lai, C. C.; **El Kazzouli, S.**; Garcia, A. M.; Marquez V. E.; Kelly, J. A.
- ✓ *DAG-lactones containing 4-alkylpyridinium cations in the alpha-arylidene position: Evaluation of their interaction with protein kinase C (PKC) and membranes*. 236th ACS National Meeting, August 17-21, **2008, Philadelphia, PA**, (USA). **El Kazzouli, S.**; Lewin, N. E.; Blumberg, P. M.; Raz Jelinek, Marquez V. E.
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- ✓ *Synthesis and characterization of new organophilic clays: Preparation of polystyrene/clay nanocomposites*. Polymer Processing Society Meeting-27, **Marrakech** (Morocco) **2011**. Ben-Yahia, M. A.; **El Kazzouli, S.**; Essassi, E. M.; Bousmina, M.
- ✓ *Nanostructured Palladium-Perovskites: Interesting "Release and Catch" Catalytic System in Cross-Coupling Chemistry*. Polymer Processing Society Meeting-27, **Marrakech** (Morocco) **2011**. Essoumhi, A.; **El Kazzouli, S.**; Bousmina, M.; Solhy, A.; El Kadib A.
- ✓ *Synthesis, Characterization and Evaluation of new Conjugated Copolymers*. Polymer Processing Society Meeting-27, **Marrakech** (Morocco) **2011**. Ben-Yahia, M. A.; **El Kazzouli, S.**; Essassi, E. M.; Bousmina, M.
- ✓ *Synthesis, Characterization and Biological Evaluation of New Drug-Loaded Phosphorus Dendrimers*. Polymer Processing Society Meeting-27, **Marrakech** (Morocco) **2011**. El Brahmî, N.; **El Kazzouli, S.**; Hameau, A.; Mignani, S.; Essassi, E. M.; Bousmina, M.
- ✓ *Synthèse, caractérisation et évaluation biologique de nouveaux complexes dendrimères-cuivre*. 3^{ème} Colloque Scientifique Franco-Marocain du LIA. **Rabat**, Maroc 15-17 Octobre 2012. El Brahmî, N. **El Kazzouli, S.** Laurent, R. Mignani, S. Cresteil, T. Essassi, M. Caminade, A-M. Costes, J-P. Bousmina, M. Majoral, J-P.
- ✓ *Synthesis, Characterization and Biological Evaluation of New Drug-Loaded Phosphorus Dendrimers*. 3rd International Symposium on Biological Applications of Dendrimers. **Toledo, Spain** 5th-8th September, 2012. El Brahmî, N. **El Kazzouli, S.** Laurent, R. Mignani, S. Cresteil, T. Essassi, M. Caminade, A-M. Costes, J-P. Bousmina, M. Majoral, J-P.
- ✓ *Functionalization of indazoles by Suzuki-Miyaura and C-H activation*. 1^{ère} Rencontre Internationale de Chimie Moléculaire, Chemiométrie et Applications (1^{ère} RICMCA), 29-30 Mai **2014** à la FST de Beni Mellal, Maroc.
- ✓ *Copper(II)-conjugated phosphorus dendrimers: Synthesis and antitumoral activities*. 1^{ère} Rencontre Internationale de Chimie Moléculaire, Chemiométrie et Applications (1^{ère} RICMCA), 29-30 Mai **2014** à la FST de Beni Mellal, Maroc.

Awards and Recognitions

- ◆ 7th on the **Top 25** Hottest Chemistry articles on ScienceDirect™ October- December **2006**, and, 3th on the **Top 25** Hottest Tetrahedron Letters articles on ScienceDirect™ October- December **2006**. El Kazzouli, S.; Koubachi, J.; Berteina-Raboin, S.; Mouaddib, A.; Guillaumet, G. *Tetrahedron Letters*, **2006**, 47, 8575.
- ◆ **The inside cover picture of ChemBioChem**. Raifman, O.; Kolusheva, S.; El Kazzouli, S.; Sigano, D. M.; Kedei, N.; Lewin, N. E.; Lopez-Nicolas, R.; Ortiz-Espin, A.; Gomez-Fernandez, J. C.; Blumberg, P. M.; Marquez, V. E.; Corbalan-Garcia, S.; Jelinek, R. *ChemBioChem*. **2010** 11, 2003.
- ◆ **The top 10** of the most accessed articles from the online version of *New Journal of Chemistry*, September 2011, **El Kazzouli, S.**; Mignani, S.; Bousmina, M.; Majoral, J-P.; *New J. Chem.* **2012**, DOI: 10.1039/c1nj20459a
- ◆ **The top 10** of the most accessed articles 07/2014 to 06/2015, from the online version of *Eur. J. Org. Chem.* Koubachi, J.; **El Kazzouli, S.**; Bousmina, M.; Guillaumet, G. *Eur. J. Org. Chem.* **2014**, 24, 5119.
- ◆ Invited Professor at the University of Orleans in **2015** from 15 Jun to 15 July.

FUNDING, PROPOSALS AND PROJECTS

- 2011:** Financial support from COST program (European program) for a project on bioapplication of functional dendrimers (Ph.D. training, **Nabil El Brahmi** in LCC, CNRS of Toulouse, France, and participation in meeting for two researchers from MAScIR-INANOTECH).
- 2011:** June-December: Financial support from EGID "France" for six month training for Ph.D. Student **Mohamed Ali Ben-Yahia**, Synthesis of bioactive indazole analogues (ICOA, University of Orleans France).
- 2012-2015:** February-July: Financial support from EGID "France" for a Ph.D. Student **Mohammed Naas**, Synthesis of bioactive molecules (ICOA, University of Orleans France).
- 2015-2017:** Financial support from EGID "France" (ICOA, University of Orleans France) financial support for a Ph.D. program Co-tutelle. (**Soukaina Farrasse**).
- 2015-2017:** Financial support from CNRST "scholarship" (**Khadija Gambouz**).
- 2015:** Financial support from CNRST, Appel à projets dans les domaines prioritaires de la recherche (820 000 Dh)
- 2016 :** Financial support from CNRST, Appel à projets PHC (Toubkal) (30 000 Euro)

REFeree

- * Referee of different scientific journals (European Journal of Organic Chemistry, Current Organic Chemistry, RSC Advances ...).
- * Participation in different thesis examination committees (Nabil El Brahmi 2013, Rabia Belaroussi 2016, Mouhamed Naas 2016, Jamal Koubachi 2016 (thèse d'habilitation)).
- * Member of the Editorial Board of the *Journal Marocain de Chimie Hétérocyclique*.

COLLABORATIONS

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