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* **Education**

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1995

Chemistry

Isfahan University of Technology, Isfahan Iran

**MSc**

1999

Organic Chemistry

Isfahan University of Technology, Isfahan Iran

**Title of thesis:**

Preparation of sulfonamides in solid state and reduction of Organic compounds with a new reducing agents(BTPPTB)

Supervisor : Prof A.R.Hajipour (Email: [haji@cc.iut.ac.ir](mailto:haji@cc.iut.ac.ir))

**Ph.D**

2005

Organic Chemistry

Isfahan University of Technology, Isfahan Iran

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**Application of Tetrazoles in Asymmetric Synthesis, Dynamic NMR and Quantum Mechanical Study of their Derivatives**

Supervisor: Prof. H. A. Dabbagh (Email: [dabbagh@cc.iut.ac.ir](mailto:dabbagh@cc.iut.ac.ir))

2005-2011

Assistant Professor of Organic chemistry

Yasouj University Yasouj, Iran

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Isfahan University of Technology, Isfahan, Iran

* **Research Area**
  + Sustainable Chemistry
  + Computational Chemistry
  + Application of Heterogeneous Catalysts in Organic Synthesis
* **Teaching Experience**

Undergraduate courses and lab demonstration for following courses in Ilam University (2005-2006)

* + Physical Organic Chemistry
  + Organic Chemistry
  + Organic Chemistry Laboratory
  + Separation and identification of organic compounds
  + Spectrometric Identification of Organic Compound
* Teaching assistant for the course Organic chemistry in IUT., (1996-2005)
* Teaching lecturer in Yasouj University (2005-2011)
* Teaching lecturer in IUT 2012-
* **Publications**

1. Benzyltriphenylphosphonumtetrahydroborate (BTPPTB) as a selective reducing agent for reduction of aldehydes and ketones to the corresponding alcohols, A.R.Hajipour, S.E.Mallakpour and A.R.Najafi, ***phosphorus, sulfur and silicon*** ,2000, 165, 165-170.
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109. Density functional theory of tautomerism and water-assisted proton transfer of glycoluril, Alireza Salimi Beni, Masoumeh Aazari, Alireza Najafi Chermahini, Maryam Zarandi, **Russian Journal of Physical Chemistry** A 2016, 90 (9), 1859-1868
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114. Theoretical study on the bridge comparison of TiO2 nanoparticle sensitizers based on phenoxazine in dye-sensitized solar cells Zahra Jafari Chermahini, Alireza Najafi Chermahini, **Theoretical Chemistry Accounts**, 2017, In Press
115. Transport Behavior of the Enantiomers of Lactic Acid through Cyclic Peptide Nanotube: Enantiomer Discrimination H Farrokhpour, A Mansouri, A Najafi Chermahini **The Journal of Physical Chemistry** C, 2017
116. The catalytic effect of Al-KIT-5 and KIT-5-SO3H on the conversion of fructose to 5-hydroxymethylfurfural AN Chermahini, H Hafizi, N Andisheh, M Saraji, A Shahvar **Research on Chemical Intermediates**, 1-15,
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118. Adsorption modes of 1, 3-thiazol-2-amine on the TiO2 (001) and (101) anatase surfaces H Farrokhpour, M Vazifeh, AN Chermahini, **Structural Chemistry**, 1-12

**Seminars**

**a) Posters**

Presentation of more than 25 papers.

**b) Oral Presentation**

* 1. Synthesis and partial resolution of aryloxy tetrazoles with axial chirality, 10th Iranian Seminar of Organic Chemistry Isfahan University of Technology, Isfahan, 2005
  2. Semiempirical study of the aromaticity and electronic properties of aryloxy tetrazoles. 14th Iranian Seminar of Organic Chemistry University of Zabol , Zabol, 2008

**Workshops**:

* + - Application of Infrared Spectroscopy in Organic Chemistry, [Institute for Advanced studies in Basic Sciences, Zanjan, winter 2000.](http://www.iasbs.ac.ir/)
    - Application of NMR in Organic Chemistry, [Institute for Advanced studies in Basic Sciences, Zanjan, Winter 2001.](http://www.iasbs.ac.ir/)
  + **STUDENTS**
  + ⯁ Ms Students

1. Ghaedi A. (Yasouj University)
2. Dalirnasab Z. (Yasouj University)
3. Safikhani N. (Yasouj University)
4. Moaddeli, A. (Yasouj University)
5. Mahdavian M. (Yasouj University)
6. Jamshidi S. (Tarbiat Moallem Azarbayejan University)
7. Mazaheri A. (Yasouj University)
8. Doukheh M. (Yasouj University)
9. Bostanian M. (Yasouj University)
10. Zadehassan H. (Yasouj University)
11. Reisi B. (Yasouj University)
12. Pourmoghddas F. (Yasouj University)
13. Askarian Motlagh M. (Yasouj University)
14. Taffakori E. (Yasouj University)
15. Fattahi Sonia (IUT)
16. Khani Masoud(IUT)
17. Azadi Mahboubeh (IUT)
18. Hafizi Hamid
19. Kermannezhad Kamran

⯁PhD students

* + 1. Jafari Chermahi Zahra (Supervisor)
    2. Rasti Elham. (Advisor)
  + **STUDENTS CURRENTLY ADVISED:**
* **PhD students** 
  + - 1. Shahangi Fereshte

1. Rezaei Masoume
2. Mohamadbagheri Zahra

**عناوین پایان نامه های کارشناسی ارشد راهنمایی شده**

* + 1. مطالعه نوارآرایی واکنش بنزیل بنزیلیک اسید با روش هارتری فاک و تئوری عاملیت دانسیته در حلالهای آلی علیرضا نجفی چرمهینی، علیرضا سلیمی بنی، آرزو مظاهری 1389
    2. تهیه تترازولها با استفاده از کائولین به عنوان کاتالیزور سازگار با محیط زیست و مطالعه اثر استخلاف روی پیوند هیدروژنی در دیمرهای تترازول علیرضا نجفی چرمهینی، مسعود نصر اصفهانی، آسیه قایدی 1387
    3. تهیه تترازولها با استفاده از کاتالیزور مونت موریلونیت K10 و بررسی تاتومریسیم 1-H و 2H در مشتقات تترازولها علیرضا نجفی چرمهینی، فریبرز مومن بیک، زینب دلیر نسب 1387
    4. سنتز کالیکس[4] رزورسینارنها در شرایط بدون حلال و مطالعه تئوری تعادلات تترازول-تترازولون بهادر کرمی، علیرضا نجفی چرمهینی و نیلوفر صفی خانی محمودی 1387
    5. تهیه و مطالعه رنگهای آزوی جدی بر پایه چارا آمینو فنیل ایمیدازول و محاسبات تئوری آنها علیرضا نجفی چرمهینی، مسعود نصر اصفهانی حسن زاده حسن 1390
    6. سنتز مشتقات تترازول با استفاده از خاک مونتموریلونیت-K10 اصلاح شده و مطالعه پیوند هیدروژنی در دیمرهای در فلئورو استیک اسید علیرضا نجفی چرمهینی، بهادر کرمی، علی معدلی 1388
    7. بررسی تعادلات و آروماتیسیتی تیول-تیون در مشتقات اکسازول-2-تیول و اکسازول-2-تیون مهرداد مهکام، علیرضا نجفی چرمهینی، سعادت جمشیدی 1389
    8. تهیه و مطالعه رنگهای آزوی جدید بر پایه پارا آمینو فنیل تترازول و محاسبات تئوری بر روی آنها علیرضا نجفی چرمهینی، بهادر کرمی، مریم دوخه 1389
    9. تهیه و مطالعه رنگهای آزوی جدید بر پایه 3- آمینو فنیل تترازول و بررسی پیوند هیدروژنی فلئورو استیک اسید. علیرضا نجفی چرمهینی، علیرضا سلیمی بنی، محسن مهدویان 1388.
    10. تبدیل ترکیبات تیوکربونیل به ترکیبات کربونیل توسط ید، یدومونوکلرید و تنگستو سیلیسیلیک اسید مسعود نصر اصفهانی، علیرضا نجفی چرمهینی، ساره مرادی 1387.
    11. سنتز تعدادی از رنگهای جدید بر پایه 3-هیدروکسی-N(1H-تترازول-5-ایل)-2-نفتامید و مطالعات تئوری بر روی تاتومری 1H-ایمیدازول2(3H) سلنون ، علیرضا نجفی چرمهینی، مسعود نصر اصفهانی، فاطمه پورمقدس 1390
    12. سنتز رنگدانه های با کارایی بالا بر پایه 3-هیدروکسی-2-نفتوئیک اسید و 5-آمینو تترازول و مطالعات تئوری بر روی ایزومرهای تترازول-5-سلنون علیرضا نجفی چرمهینی، علیرضا سلیمی بنی، بهاره رییسی، 1390
    13. سنتز تعدادی از رنگهای آزوی جدید مشتقات تیوزانتون علیرضا سلیمی بنی، علیرضا نجفی چرمهینی، زهرا جعفری چرمهینی 1389.
    14. دی آزوتاسیون و سنتز تعدادی از رنگهای آزو با استفاده از خاک مونت موریلونیت-K10 اصلاح شده به عنوان کاتالیزور علیرضا نجفی چرمهینی، علیرضا سلیمی بنی، مهدی بستانیان 1389
    15. سنتز ایمیدازولهای سه و چهار استخلافی با استفاده از کاتالیزور ایتریوم نیترات شش آبه در شرایط بدون حلال و گرمایی بهادر کرمی، علیرضا نجفی چرمهینی، فاطمه محمد پور دهقانی 1389
    16. سنتز مشتقات کومارین با استفاده از لوییس اسیدهای ایتریوم (III) نیترات شش آبه و زیرکونیوم اکسی کلرید هشت آبه نشانده شده بر روی سیلیکاژل تحت شرایط حرارتی و بدون حلال بهادر کرمی، علیرضا نجفی چرمهینی، مهتاب کیانی 1389
    17. سنتز تک مرحله ای ایمیدهای خطی نا متقارن در حضور پارا تولوئن سولفونیک اسید تحت شرایط حرارتی و آلتراسونیک مسعود نصر اصفهانی، علیرضا نجفی چرمهینی، نجمه فیلوان ترکمن 1389
    18. جداسازی و شناسایی همزمان قندها بعد از مشتق سازی با 4-آمینو فنوکسی تترازول به روش کروماتوگرافی مایع فاز معکوس و آشکار سازی فلورسانس، فریبرز مومن بیک، علیرضا نجفی چرمهینی، غلامعلی بهمنی 1388
    19. سنتز تعدادی از مشتقات تیوزانتون با استفاده از واکنشگرهای آلومینا متان سولفونیک اسید، مونت موریلونیت K-10 متان سولفونیک اسید و هتروپلی اسید و مطالعات ساختاری آنها علیرضا سلی بنی، علیرضا نجفی چرمهینی، ستاره میرزایی منفرد 1388
    20. سنتز مشتقات 4-آریل-3،4-دی هیدروپیریمیدین-2-(1H) اون تیون در حضور کاتالیزور نیترات کبالت (II) شش آبه و سنتز مشتقات پلی هیدروکینولین در حضور نیترات باریوم ، مسعود نصر اصفهانی، علیرضا نجفی چرمهینی، مریم عاقل میررضایی 1390