



### **Curriculum Vitae**

**First name: Seyed Abolghasem    Last name: kahani**

**Born: Nov. 1964 / Nishabour / IRAN.**

**Email: Kahani@kashanu.ac.ir**

**Tel: +98 2177878839**

**Mobile: +98 913-3611808**

### **Education:**

**BSc. (Chemistry)-Urmia University (1988).**

**MSc. (Inorganic chemistry)-Ferdowsi University of mashhad (1991).**

**Ph.D. (Inorganic Chemistry)-Tehran University (2001)**

**Dissertation topic:**

**“Synthesis of new Silver(III) and Gold (III) complexes**

### **Researches and Developments:**

1. Metal complexes in high oxidation state
2. Thermochromism and thermocoductivity
3. Magnetic nanoparticle
4. Electrophotography and toner characterization
5. Mechanochemical reactions
6. Inorganic polymers

### **Publications:**

#### **1. Deposition of Magnetite Nanoparticles in Activated Carbons and Preparation of Magnetic Activated Carbons**

*S. A. Kahani, M. Hamadianian, and O. Vandadi*

*Department of Chemistry, University of Kashan, 87317-51167 Kashan, Iran  
AIP Conf. Proc. 929, 183 (2007)*

#### **2. A New Method of Preparation of Magnetite Nanoparticles from Iron Oxide Hydroxide**

*S. A. Kahani and M. Jafari*

*Department of Chemistry, University of Kashan, 87317-51167 Kashan, Iran*

*AIP Conf. Proc. 929, 177 (2007)*

### **3. Synthesis of silver(III) aminomethylpyridine complexes from silver nitrate and aminomethylpyridines**

*Kahani A.<sup>1</sup>; Abedini M.<sup>1</sup>; Farnia M.<sup>1</sup>*

*Transition Metal Chemistry, Volume 25, Number 6, December 2000, pp. 711-714(4)*

### **4. SYNTHESIS OF NEW PYRIDINE SILVER(III) COMPLEXES**

*Authors: A. Kahani<sup>a</sup>; M. Abedini<sup>a</sup>; M. Farnia<sup>a</sup>*

*Journal of Coordination Chemistry, Volume 53, Issue 1 March 2001, pages 1 - 6*

### **5. A Synthesis of a silver(III) diethyldithiocarbamate complex**

*Abedini, M; Farnia, M; Kahani,*

*JOURNAL OF COORDINATION CHEMISTRY, 50(1), 2000, pp. 39 – 42*

### **6. A new method for preparation of magnetite from iron oxyhydroxide or iron oxide and ferrous salt in aqueous solution**

**S.A.Kahani, M.Jafari**

**Department of Chemistry, Faculty of Science, University of Kashan, Kashan 87317-51167, Islamic Republic of Iran**

*Journal of Magnetism and Magnetic Materials, 321 (2009) 1951.*

### **7. The Mechanochemical Oxidation of Thiocyanate to Polythiocyanogen (SCN)<sub>n</sub> Using Peroxydisulphate**

**S. A. Kahani and M. Sabeti**

*J Inorg Organomet Polym (2011) 21:458–464*

### **8. The comparison of chemical synthesis magnetite nanoparticles with particle size of biosynthesis Fe<sub>3</sub>O<sub>4</sub> by magnetotactic bacteria**

**S. A. Kahani and Z. Yaghini**

**9. The comparison of chemical synthesis magnetite nanoparticles with particle size of biosynthesis Fe<sub>3</sub>O<sub>4</sub> by magnetotactic bacteria**

S. A. Kahani\* and Z. Yagini

Bioinorganic Reaction Mechanisms (BIRM) ۲۰۱۲ In press.

**Patents:**

**1. Preparation of terphthalic acid and ethylene glycol form the PET waste**

*S. A. Kahani*

*Department of Chemistry university of kashan, Kashan, Iran*

*Iranian trademark and patent office Patent No. 39950*

**2. Preparation of PET fiber from the PET waste by superheat steam**

*S. A. Kahani*

*Department of Chemistry university of kashan, Kashan, Iran*

*Iranian Trademark and Patent Office Patent No. 39949*

**3. Electrical conductivity of nickel compound with temperature**

*S. A. Kahani and M. Zamani*

*Department of Chemistry university of kashan, Kashan, Iran*

*Iranian Trademark and Patent Office Patent No. 37901*

**4. Electrical conductivity of Copper compound with temperature**

*S. A. Kahani and M. Zamani*

*Department of Chemistry university of kashan, Kashan, Iran*

*Iranian Trademark and Patent Office Patent No. 37895*

## Seminar lectures

### **1. Oxidation of ammonia to dinitrogen by peroxydisulfate in aqueous solution and coordinated to silver in high oxidation state**

*Abolghasem Kahani\**

*Department of Chemistry University of Kashan, Kashan, Iran.*

*6<sup>th</sup> Iranian Inorganic chemistry seminar Ferdowsi university 7-8 nov. 2001*

### **2. SYNTHESIS OF AMINOPYRIDINE SILVER(III) COMPLEXES FROM SILVER NITRATE AND HETEROCYCLIC LIGAND BY PEROXYDISULPHATE IN SOILD PHASE**

*Seyed Abolghasem Kahani\* and Mohammad Taghi Yousefi*

*Department of chemistry University of Kashan, Kashan, Iran.*

*14th Iranian Chemistry & Chemical Engineering Congress 17-19 February 2004 University of Tarbiat Moalem*

### **3. A new method in preparation of Fe<sub>3</sub>O<sub>4</sub> and magnetic separation of fatty acid from volatile fraction of oxidized Bitumen**

*Seyed Abolghasem Kahani\* and Mohsen Jafari*

*Address : Department of Chemistry, University of Kashan, Kashan, Iran.*

*14th Iranian Chemistry & Chemical Engineering Congress 17-19 February 2004 University of Tarbiat Moalem*

### **4. Office Wastepaper Recycling**

*S. A. Kahani<sup>1</sup> and M. Habibian<sup>2</sup>*

*<sup>1</sup>Department of Chemistry, University of Kashan, Kashan, Iran.*

*<sup>2</sup>Department of Chemical Engineering, Iran University of Science and Technology.*

*2<sup>nd</sup> National Seminar of chemistry and Environment 27-29 Jun. 2004*

*Department of Chemistry University of Isfahan*

### **5. SYNTHESIS OF SILVER(II) COMPLEXES FROM SILVER NITRATE AND HETEROCYCLIC LIGAND BY PEROXYDISULPHATE IN SOILD PHASE**

*Seyed Abolghasem Kahani\* and Mohammad Taghi Yousefi*

*Department of chemistry University of Kashan, Kashan, Iran*

*9th Iranian Inorganic Chemistry Conference 7-8 March 2007 Semnan University Department of Chemistry*

## **6. Mechanochemical Synthesis of bis(dimethylglyoximato)nickel(II) complex**

*A. Kahani\* and M. Jafari*

*Department of Chemistry University of Kashan, Kashan, Iran*

*9th Iranian Inorganic Chemistry Conference 7-8 March 2007  
Semnan University Department of Chemistry*

## **7. Extraction of Gold from Cyanide Solution by Magnetic Activated Carbon**

*Seyed Abolghasem Kahani\* and Omid Vandadi*

*Address: Department of chemistry University of Kashan, Kashan, Iran.*

*9th Iranian Inorganic Chemistry Conference 7-8 March 2007  
Semnan University Department of Chemistry*

## **8. Study of the Structure of Self-Assembled Monolayers films of n-alkanoic acids on the surfaces of CuO and AgO**

*S. A. Kahani\* and M. T. Yousefi*

*Department of Chemistry university of kashan, Kashan, Iran.*

*1<sup>st</sup> Seminar on nanostructured material 2-3may 2004 Iran University of Science and Technology*

## **9. Review of Oxidized Asphalt**

*Seyed Abolghasem Kahani*

*Department of Chemistry University of Kashan, Kashan, Iran*

*1th Iranian Roofining seminar 17 October 2001 mashhad*

## **10. Application of Microwave Dielectric Heating Effects to Synthetic Chemistry**

*Seyed Abolghasem Kahani*

*Department of Chemistry, Faculty of Science, University of Kashan, Kashan, Iran.*

*1th Chemistry Seminar Payam Noor university 23– 24 December 2001*

## **11. Mechanochemical synthesis of Thermochromic compounds AgHgI<sub>4</sub> and Cu<sub>2</sub>HgI<sub>4</sub>**

*S. A. Kahani\* and A. rajabi*

*Department of Chemistry university of kashan, Kashan, Iran.*

*10th Iranian Inorganic Chemistry Conference 7-8 May 2008*

*Sistan Bluchestan University Department of Chemistry*

## **12. A new method in preparation of CoFe<sub>2</sub>O<sub>4</sub> from goetite**

*S. A. Kahani\* and Z. Yaghini*

*Department of Chemistry university of kashan, Kashan, Iran*

*10th Iranian Inorganic Chemistry Conference 7-8 May 2008*

*Sistan Bluchestan University Department of Chemistry*

**13. Mechanochemical synthesis of Thermochromism compounds propylammonium and Butylammonium tetrachlorocuprate**

*S. A. Kahani\* and Z. Yaghini*

*Department of Chemistry university of kashan, Kashan, Iran*

*10th Iranian Inorganic Chemistry Conference 7-8 May 2008*

*Sistan Bluchestan University Department of Chemistry*

**14. The electrochemical study of mononuclear Silver(III) aminomethylpyridine complexes in sulfuric and chloric acid solution**

S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*14th Iranian Seminar of Analytical Chemistry, University of Kashan*

**15. Synthesis of magnetite nanoparticles from ferrous salts in amine solution at room temperature**

M. Shahrokh and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*15 th Iranian Chemistry Congress, Bu-Ali Sina University*

**16. Synthesis of maghemite nanoparticles from ferrous salts in ethylenediamine solution at room temperature**

M. Shahrokh and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*1<sup>st</sup> Iranian Inorganic Chemistry Razi University of Kemanshah*

**17. A new method in preparation of magnetic iron oxide and determination of domain**

**wall from magnetization curve in maghemite and magnetite nanoparticles** M. Shahrokh and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*1<sup>st</sup> Iranian Inorganic Chemistry Razi University of Kemanshah*

**18. A novel method in estimating of domain walls in nickel metal nanoparticles**

H. mollaie and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*1<sup>st</sup> Iranian Inorganic Chemistry Razi University of Kemanshah*

**19. Determination of size distributions from magnetization curve in magnetite nanoparticle**

H. mollaie and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*1<sup>st</sup> Iranian Inorganic Chemistry Razi University of Kemanshah*

**20. Synthesis and characterization of nanocrystalline NiS by chemical reduction process**

H. mollaie and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*1<sup>st</sup> Iranian Inorganic Chemistry Conference University of Guilan*

**21. Synthesis and characterization of Fe<sub>3</sub>O<sub>4</sub> nanoparticles using diamine hydrate by chemical reduction route**

H. mollaie and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*15th Iranian Inorganic Chemistry Conference University of Guilan*

**22. Synthesis of maghemite nanoparticles from magnetite by mechanochemical method**

F. Rahimi and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*15th Iranian Inorganic Chemistry Conference University of Guilan*

**23. Synthesis of magnetite nanoparticles from ferrous salts in piperazine solution at room temperature**

M. Shahrokh and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*15th Iranian Inorganic Chemistry Conference University of Guilan*

**24. Synthesis of nickel metal nanoparticles from nickel complex**

H. mollaie and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*15th Iranian Chemistry Congress, Bu-Ali Sina University*

**25. Synthesis and characterization of nanocrystalline nickel by chemical reduction process from amin- nickel complex**

H. mollaie and S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*15th Iranian Chemistry Congress, Bu-Ali Sina University*

**26. Using of PET waste fibers in asphalt roofing**

S. A. Kahani

*Department of Chemistry university of kashan, Kashan, Iran*

*2 th national seminar of asphalt roofing, mashad February 2012*

## **27. Magnetic separation of carboxylic acid hydrocarbons from volatile fraction of oxidized Asphalt**

*A. Kahani\* and M. Jafari*

*Department of Chemistry university of kashan, Kashan, Iran*

*2th national seminar of asphalt roofing, mashad February 2012*

## **Supervisor for Master of Science Students**

### **1. Synthesis and characterization of silver(II), Complexes in solid state and oxidation of thiocyanate in presence of copper(II) catalysis**

Supervisor: S. A Kahani Student : M. T. Yousefi July 2004

*Department of Chemistry university of kashan, Kashan, Iran*

### **2. A new method for preparation of magnetite and magnetic separation of fatty acid in oxidation process of hydrocarbons.**

Supervisor: S. A Kahani Student : M. Jafari April 2005

*Department of Chemistry university of kashan, Kashan, Iran*

### **3. Doping of magnetic iron oxide in activated carbon and investigation of its properties**

Supervisor: S. A Kahani Student : O. Vandadi March 2006

*Department of Chemistry university of kashan, Kashan, Iran*

#### **4. Determination of electrostatic charge of toners and identification its chemical composition**

Supervisor: S. A Kahani Student : M. Norozi May 2005

*Department of Chemistry university of kashan, Kashan, Iran*

#### **5. Preparation of new compounds from copper and nickel and investigation of its thermochromism properties**

Supervisor: S. A Kahani Student : M. Zamani April 2006

*Department of Chemistry university of kashan, Kashan, Iran*

#### **6. Preparation of thermochromism compounds from copper(I), silver(I) and mercury(II) and study of it's electrical Conductivity in Solid State**

Supervisor: S. A. Kahani student : A. Rajabi

*Department of Chemistry university of kashan, Kashan, Iran*

#### **7. Preparation of thermochromism compounds from Nickel (II) and Copper (II) with aliphatic amines in solid state**

Supervisor: S. A. Kahani student : M. shahabi

*Department of Chemistry university of kashan, Kashan, Iran*

#### **8. Direct reaction of iron, nickel, copper and zinc with donor sulfur and nitrogen ligands in solid phase and preparation of their complexes**

Supervisor: S. A Kahani Student : F. Parto

*Department of Chemistry university of kashan, Kashan, Iran*

#### **9. Preparation and characterization of polythiocyanogen in aqueous solution and in solid state**

Supervisor: S. A Kahani Student : M. Sabeti June 2007

*Department of Chemistry university of kashan, Kashan, Iran*

#### **10. A new method for preparation of magnetic iron oxide nanoparticle**

Supervisor: S. A Kahani Student Z. Yaghini June 2008

*Department of Chemistry university of kashan, Kashan, Iran*

### **11. Synthesis and characterization of mixed-valence silver oxide nanoparticle**

Supervisor: S. A Kahani Student: N. Sepahkar Jun 2010

*Department of Chemistry university of kashan, Kashan, Iran*

### **12. Synthesis and characterization of magnetite nanoparticles from ferrous salts in amines solution at room temperature and their applications**

Supervisor: S. A Kahani Student: M. Shahrokh Jun 2010

*Department of Chemistry university of kashan, Kashan, Iran*

### **13. Synthesis of maghemite nanoparticles from magnetite by mechanochemical method**

Supervisor: S. A Kahani Student: F. Rahimi Jun 2010

*Department of Chemistry university of kashan, Kashan, Iran*

### **14. Preparation and Characterization Copper Nanoparticles by Chemical Reduction of Copper(II) Complexes by Hydrazine**

Supervisor: S. A Kahani Student: M. Shahrokh Jun 2010

*Department of Chemistry university of kashan, Kashan, Iran*

