**Curriculum Vitae**

**Merajuddin Khan, Ph.D.**

**E-mail:** mdk\_cimap@yahoo.com

**1. Education**

* **Ph.D.:** Organic Chemistry, **2005**, Central Institute of Medicinal and Aromatic Plants (CIMAP) a CSIR laboratory, Lucknow (UP), India. Degree awarded by Dr. Ram Manohar Lohia Avadh University, Faizabad (UP), India.

**Title of thesis:** Chemical investigation of some Indian medicinal and aromatic plants and transformation of natural products into bioactive compounds.

* **M.Tech.:** Post Harvest Engg. & Technology (Food Engg.), **1999**, Aligarh Muslim University, Aligarh (UP), India.

**Dissertation title:** Extraction ofnatural dyes from agricultural produce including wastes and their application on wool.

* **M.Sc.:** (Chemistry): Specialization in analytical Chemistry, **1997**, Aligarh Muslim University, Aligarh (UP), India.
* **B.Sc.** (Hons.)**:** Chemistry, **1995**, Aligarh Muslim University, Aligarh (UP), India.

**2. Professional appointments**

**February 2009-Present Assistant Professor,** Organic chemistry division, Department of chemistry, College of Science, King Saud University, Riyadh, Saudi Arabia.

**April 2006-Dec. 2008 Post-doctoral fellow** in natural products chemistry,Korea Forest Research Institute, Seoul 130-712, Republic of Korea, Advisor: Professor Hak-Ju Lee.

**Dec. 2005-March 2006 Post-doctoral fellow** in natural products chemistry, South China Botanical Garden, Chinese Academy of Sciences, Leyiju, Guangzhou 510650, China,

Advisor: Professor Xiaoyi Wei.

**August 2005-Dec. 2005 Scient ist**, R & D division, SAMI Labs Ltd., Corporate office, 19/1 & 19/2, I Main, II Phase, Peenya industrial area, Bangalore 560058, India.

**April 2000-July 2005 Project Assistant**, Phytochemistry division, Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow- 226015, India.

**3. Primary Research Interests**

***3. 1.* *Natural Products Chemistry:***

Natural products are organic compounds, which are isolated from natural sources such as plants, microorganisms, marine organisms and animals. These organisms rely mainly on their chemical defense by producing the organic compounds also termed as secondary metabolites. Natural products are a rich source of new pharmaceutical agents. Recent survey indicates that ca.60% of anti-cancer and anti-infective agents that commercially available or in the late stages of clinical trials are of natural products origin. My primary research interest is isolation of new pharmaceutical agents from natural sources, chemical transformations of bioactive natural products, design of activity-guided screening of natural product extracts for medicinal research. Chemotaxonomic studies, chemical fingerprinting of essential oils isolated from various aromatic plants with the help of GC and GC-MS.

***3. 2.* *Isolation and Purification*:**

Various modern chromatographic techniques such as High Performance Liquid Chromatography (HPLC), High Performance Thin Layer Chromatography (HPTLC), Centrifugally Accelerated Radial Thin Layer Chromatography (Chromatotron), Flash Chromatography, Vacuum Liquid Chromatography (VLC), Flash chromatography, Column Chromatography (CC) and Preparative Thin Layer Chromatography (pTLC) are used for the isolation and purification of highly complex polar and non-polar mixtures of bioactive natural products.

***3. 3. Structure Determination*:**

Structure of the pure secondary metabolites and their modified analogues are established with the help of extensive spectroscopic studies such as one-dimensional (1H-NMR, 13C-NMR and DEPT), two-dimensional (COSY, NOESY, TOCSY, HMQC and HMBC) NMR experiments, HPLC, mass spectrometry (EI, CI, FAB, LC-MS, GC-MS and linked scan), UV and IR spectrophotometers.

**4. Research highlights**

**2009-Present**

* Natural Products chemistry and Synthesis of bioactive organic molecules

**2006-2008**

* Activity-guided isolation, purification and structure determination of novel secondary metabolites from Korean medicinal plant species.

**2005-2006**

* Total Synthesis and chemical modifications of bioactive natural chalcones as anticancer agents to study their “Structure Activity Relationship” (SAR).
* Easy and economical process development for the isolation of lead bioactive secondary metabolites from the medicinal plants.

**2000- 2005**

* Easy and economical process development for the isolation of bioactive compounds such as camptothecin, oleanolic acid and loganin from *Mappia foetida*, *Lantana camara* and *Strychnos nux-vomica* respectively.
* Chemical modifications of bioactive natural compounds such as camptothecin, loganin, ursolic acid and oleanolic acid to study their “Structure Activity Relationship” (SAR).
* Chemical fingerprinting of essential oils isolated from various Indian aromatic plants with the help of GC and GC/MS.

**1999- 2000**

* Extraction of natural dyes from agricultural produce including wastes and their application on wool.

**5. Personal**

**Name**  **:**  Merajuddin Khan

**Date of Birth**  **:**  01-01-1975

**Place of Birth** **:** Dildar Nagar, Uttar Pradesh, India

**Mobile number** **:** +966-535979178.

**Corresponding Address** **:** S/o: Ainuddin Khan

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**Permanent Address** **:** S/o:Ainuddin Khan

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 District: Ghazipur-232326 (UP), India.

 Ph.No. +91-5497-245026.

**6. Publications**

**6. 1. PAPERS**

*Published/accepted/submitted*(\*corresponding author)

1. Chemical composition of leaf and flowers essential oils of *Lantana camara* from India.

**M. Khan**, S. K. Srivastava\*, K. V. Syamasundar, M. Singh and A. A. Naqvi.

*Flavour and Fragrance Journal.* **2002;** 17 (1): 75-77.

1. Essential oil composition of genetically diverse stocks of *Murraya koenigii* from India.

V. K. Raina, R. K. Lal, Savita Tripathi, **M. Khan**, K. V. Syamasundar and S. K. Srivastava\*.

*Flavour and Fragrance Journal.* **2002;** 17 (2): 144-146.

1. Chemical composition of fruits and stem essential oils of *Lantana camara* from Northern India.

**M. Khan**, S. K. Srivastava\*, Neetu Jain, K.V. Syamasundar and Anju K. Yadav

*Flavour and Fragrance Journal.* **2003;** 18 (5): 376-379.

1. Essential oil composition of different accessions of *Mentha x piperita* L. grown on the northern plains of India.

Samresh Dwivedi, **M. Khan**, S. K. Srivastava\*, K. V. Syamasundar and Archana Srivastava.

*Flavour and Fragrance Journal.* **2004;** 19 (5): 437-440.

1. Natural dyeing on wool with Tesu (Flame of the forest), Dolu (Indian Rubarb) and Amaltas (*Cassia fistula*).

**M. Khan,** M. A. Khan\*, P. K. Srivastava and Faqeer Mohammad

*Colourage*. **2004**; 51 (5): 33-38.

1. Extraction of Lac red dye and its application on wool.

M. A. Khan\*, **M. Khan,** P. K. Srivastava and Faqeer Mohammad.

*Colourage*. **2004;** 51 (6): 27-30.

1. Extraction of natural dyes from myrobalan, gallnut and pomegranate and their application on wool.

M. A. Khan\*, **M. Khan,** P. K. Srivastava and Faqeer Mohammad.

*Colourage*. **2005**; 52 (12): 53-60.

1. Extraction of natural dyes from Cutch, Ratanjot and Madder and their application on wool.

M. A. Khan\*, **M. Khan,** P. K. Srivastava and Faqeer Mohammad.

*Colourage*. **2006**; 53 (1): 61-68.

1. Activity guided isolation of antibacterial agents from *Convolvulus pluricaulis*.

Meenakshi Singh, S. K. Srivastava\*, T. R. S. Kumar, Ateeque Ahmad, **M. Khan,** and S. P. S. Khanuja.

*Journal of Medicinal and Aromatic Plants Sciences*.**2006;** 28 (1): 1-4.

1. Essential oil composition of *Murraya exotica* from the plains of Northern India.

V. K. Raina, S. C. Verma, Sangeeta Dhawan, **M. Khan,** S. Ramesh, S. C. Singh, Anju K. Yadav and S. K. Srivastava\*.

*Flavour and Fragrance Journal.* **2006;** 21(1): 140-142.

1. Essential oil composition of *Taxus wallichiana* Zucc. from the Northern Himalayan region of India.

**M. Khan,** S. C. Verma, S. K. Srivastava\*, A. S. Shawl, K. V. Syamasundar, S. P. S. Khanuja and Tej Kumar.

*Flavour and Fragrance Journal.* **2006;** 21(5): 772-775.

1. Natural Dyeing on Wool with Indigo, and Yellow Dyes Kamala, Berberine, Onion peel, Amla, Anar and Palas in Combination with Indigo.

M. A. Khan\*, **M. Khan,** P. K. Srivastava and Faqeer Mohammad.

*Colourage*. **2007**; 54 (11): 54-60.

1. Benzofurans from the seeds of *Styrax obassia*.

Sin Young Park, Hak-Ju Lee, Oh-Kyu Lee, Ha-Young Kang, Don-Ha Choi, Ki-Hyon Paik and **M. Khan**\*.

*Bulletin of the Korean Chemical Society.* **2007**;28(10):1874-1876.

1. Furofuran lignans from the bark of *Magnolia kobus*.

Seon-Mi Seo, Hak-Ju Lee, Oh-Kyu Lee, Hyun-Jin Jo, Ha-Young Kang, Don-Ha Choi, Ki-Hyon Paik and **M. Khan**\*.

*Chemistry of Natural Compounds*. **2008**;44(4):419-423.

1. Antimicrobial activity and chemical composition of *Melaleuca genistifolia* leaf essential oil from the Northern plains of India.

A. Kumar,S. K. Srivastava\*, G. R. Dwivedi, **M. Khan,** M. P. Darokar, M. Saxena, K. V. Syamasundar, S. Luqman and S. P. S. Khanuja.

*Natural Product Communications*. **2008**;3(10):1741-1744.

1. Benzofurans and sterol from the seeds of *Styrax obassia*.

Hak-Ju Lee, Sin Young Park, Oh-Kyu Lee, Hyun-Jin Jo, Ha-Young Kang, Don-Ha Choi, Ki-Hyon Paik and **M. Khan**\*.

*Chemistry of Natural Compounds.* **2008**;44(4):435-439.

1. Lignans from the bark of *Magnolia kobus*.

Hak-Ju Lee, Seon-Mi Seo, Oh-Kyu Lee, Hyun-Jin Jo, Ha-Young Kang, Don-Ha Choi, Ki-Hyon Paik and **M. Khan**\*.

*Helvetica Chimica Acta*. **2008**;91(12):2361-2366.

1. Chemical composition of *Callistemon polandii* leaf and stem essential oils from the plains of Northern India.

**M. Khan,** S. K. Srivastava\*, K. V. Syamasundar and Anju K. Yadav.

*Chemistry of Natural Compounds.* **2008**;44(6):807-809.

1. Rare natural products from the wood of *Magnolia grandiflora*.

Hak-Ju Lee, **M. Khan**\***,** Ha-Young Kang, Don-Ha Choi, Park Mi-Jin, Hyun-Jung Lee.

*Chemistry of Natural Compounds.* **2010**;46(2):289-290.

1. Triterpene saponins and other constituents from *Fatsia japonica*.

Hak-Ju Lee, Hyun-Jung Lee,Kyoungtae Lee,Ha-Young Kang, Dongho Lee, **M. Khan**\*.

*Chemistry of Natural Compounds.* **2010**;46(3):499-501.

1. A cytotoxic agent from *Strychnos nux-vomica* and biological evaluation of its modified analogues.

**M. Khan,** Ankur Garg, S. K. Srivastava\*, Mahendra P. Darokar.

*Medicinal Chemistry Research*. **2012**;21(10):2975-2980.

1. Simple and selective synthesis of 1,3-Benzoxazine derivatives.

A. A. Al-Qahtani, T. M. Al-Turki, A. A. Mousa, S. A. Al-Mazroa, **M. Khan** and H. Z. Alkhathlan\*.

*Oriental Journal of chemistry*. **2012**;28(1):287-295.

1. Determination of chemical constituents of leaf and stem essential oils of *Artemisia monosperma* from Central Saudi Arabia.

**M. Khan,** A. A. Mousa, K.V. Syamasundar and H. Z. Alkhathlan\*.

*Natural Product Communications*. **2012**;7(8): 1079-1082.

1. Simple and efficient one step synthesis of functionalized flavanones and chalcones.

A. S. Al-Bogami, U. Karama, A. A. Mousa, **M. Khan,** S. A. Al-Mazroaand H. Z. Alkhathlan\*.

*Oriental Journal of chemistry*. **2012**;28(2):619-626.

1. Green synthesis of silver nanoparticles mediated by *Pulicaria glutinosa* extracts.

M. Khan, **M. Khan,** S. F. Adil, M. N. Tahir, W. Tremel, H. Z. Alkhathlan, A. Al-Warthan, M. R. H. Siddiqui\*.

*International Journal of Nanomedicine*. **2013**;8: 1507-1516.

1. Synthesis of polysubstituted analogues of the 4-methyl-2-phenylquinoline.

A.A. Al-Qahtani, T.M. Al-Turki, **M. Khan,** A. A. Mousa, and H. Z. Alkhathlan\*.

*Asian Journal of Chemistry*. **2013**;25 (11): 6055-6058.

1. Compositional characteristics of the essential oil of *Myrtus communis* grown in the central part of Saudi Arabia.

**M. Khan,** M. A. Al-Mansour, A. A. Mousa, and H. Z. Alkhathlan\*.

*Journal of Essential Oil Research*. **2014**;26 (1): 13-18.

1. *Launaea nudicaulis* as a source of new and efficient green corrosion inhibitor for mild steel in acidic medium: A comparative study of two solvent extracts.

H. Z. Alkhathlan\*, **M. Khan,** M. M. S. Abdullah, A. M. Al-Mayouf, A. A.Mousa, Z. A. M. Al-Othman

*International Journal of Electrochemical Science.* **2014**; 9 (2): 870-889.

1. Biogenic synthesis of palladium nanoparticles using *Pulicaria glutinosa* plant extract and their catalytic activity towards suzuki coupling reactions.

M. Khan, **M. Khan,** M. Kuniyal,S. F. Adil, A. Al-Warthan, H. Z. Alkhathlan, W. Tremel, M. N. Tahir, M. R. H. Siddiqui\*.

*Dalton Transactions*. **2014**;43 (24), 9026-9031.

1. *Pulicaria glutinosa* plant extract: A green and eco-friendly reducing agent for the preparation of highly reduced graphene oxide.

M. Khan, A. H. Al-Marri, **M. Khan,** N. Mohri, S. F. Adil, A. Al-Warthan, M. R. H. Siddiqui, H. Z. Alkhathlan, Rüdiger Berger, Wolfgang Tremel, M. N. Tahir\*.

*RSC Advances*. **2014**;4 (46), 24119-24125.

1. Corrosion inhibitory action of some plant extracts on the corrosion of mild steel in acidic media.

M. S. Al-Otaibi, A. M. Al-Mayouf, **M. Khan,** A. A. Mousa, S. A. Al-Mazroa and H. Z. Alkhathlan\*.

*Arabian Journal of Chemistry*. **2014**;7 (3), 340-346.

1. Anti-bacterial properties of silver nanoparticles synthesized using *Pulicaria glutinosa* plant extract as a green bio-reductant.

M. Khan, S. T. Khan, **M. Khan,** S. F. Adil, J. Musarrat, A. A. Alkhedhairy, A. Al-Warthan, M. R. H. Siddiqui, H. Z. Alkhathlan\*.

*International Journal of Nanomedicine*. **2014**;9 (1), 3551-3565.

1. *Pulicaria glutinosa* extract: A toolbox to synthesize highly reduced graphene oxide-silver nanocomposites.

A. H.Al-Marria,M. Khan, **M. Khan,** S. F. Adil,A. Al-Warthana, H. Z. Alkhathlan, W. Tremel, J. P. Labis, M. R. H. Siddiqui\*, M. N. Tahir\*.

*International Journal of Molecular Sciences*. **2015**; 16, 1131-1142**.**

1. Chelation-assisted substrate-controlled asymmetric lithiation-allylboration of chiral carbamate 1,2,4-butanetriol acetonide.

A. Mahmood\*, H. Z. Alkhathlan\*, S. Parvez, **M. Khan,** S. A. Shahzad.

*Molecules*. **2015**; 20, 9890-9905.

1. Anticorrosive assay-guided isolation of active phytoconstituents from *Anthemis pseudocotula* extracts and a detailed study of their effects on the corrosion of mild steel in acidic media.

H. Z. Alkhathlan, **M. Khan,** M. M. S. Abdullah, A. M. AlMayouf,\* A. Yacine Badjah-Hadj-Ahmed, Z. A. AlOthman and A. A. Mousa.

*RSC Advances*. **2015**;5 (67), 54283-54292.

1. Green approach for the effective reduction of graphene oxide using *Salvadora persica* L. root (Miswak).

M. Khan,A. H.Al-Marria, **M. Khan,** M. R. Shaik, N. Mohri, S. F. Adil, M. Kuniyal, H. Z. Alkhathlan\*, A. Al-Warthana\*, W. Tremel, M. N. Tahir\*, M. R. H. Siddiqui\*.

*Nanoscale Research Letters*. **2015**; 10 (7), 281-289.

1. Apoptosis inducing ability of silver decorated highly reduced graphene oxide nanocomposites in A549 lung cancer.

**M. Khan,** M. Khan, A. H. Al-Marri, A. Al-Warthan, H. Z. Alkhathlan, M. R. H. Siddiqui, V. L. Nayak, A. Kamal\*, S. F. Adil\*.

*International Journal of Nanomedicine*. **2016**; 11, 873-883.

1. Chemical composition of vegetative parts and flowers essential oils of wild *Anvillea garcinii* grown in Saudi Arabia.

**M. Khan,** M. M. S. Abdullah,A. A. Mousa, H. Z. Alkhathlan\*.

*Records of Natural Products*. **2016**; 10 (2), 251-256.

1. A detailed study of the volatile components of *Plectranthus asirensis* of Saudi Arabian origin.

Muneera S. M. Al-Saleem, **M. Khan,** H. Z. Alkhathlan\*.

*Natural Product Research*. **2016**; 30 (20), 2360-2363.

1. Green synthesis of pd@graphene nanocomposite: catalyst for the selective oxidation of alcohols.

A. H.Al-Marria, **M. Khan,** M. R. Shaik, N. Mohri, S. F. Adil, M. Kuniyal, H. Z. Alkhathlan, A. Al-Warthana, W. Tremel, M. N. Tahir\*, M. Khan,M. R. H. Siddiqui\*.

*Arabian Journal of Chemistry*. **2016**; 9 (6), 835-845.

1. Characterization of leaves and flowers volatile constituents of *Lantana camara* growing in central region of Saudi Arabia.

**M. Khan**\***,** A. Mahmood, H. Z. Alkhathlan\*.

*Arabian Journal of Chemistry*. **2016**; 9 (6), 764-774.

1. A detailed study on chemical characterization of essential oil components of two *Plectranthus* species grown in Saudi Arabia.

**M. Khan,** Muneera S. M. Al-Saleem, H. Z. Alkhathlan\*.

*Journal of Saudi Chemical Society*. **2016**; 20 (6), 711-721.

1. Miswak based green synthesis of silver nanoparticles: evaluation and comparison of their microbicidal activities with the chemical synthesis

Mohammed Rafi Shaik, Ghadeer H. Albalawi, Shams Tabrez Khan, **M. Khan**, Syed Farooq Adil, Mufsir Kuniyil, Abdulrahman Alwarthan, M. Rafiq H. Siddiqui, Hamad Z. Alkhathlan\* and Mujeeb Khan\*.

*Molecules*. **2016**; 21 (11), pii: E1478.

1. Plant Extract Mediated Eco-friendly Synthesis of Pd@Graphene Nanocatalyst: An Efficient and Reusable Catalyst for the Suzuki-Miyaura Coupling.

Mujeeb Khan, Mufsir Kuniyil, Mohammed Rafi Shaik, **M. Khan\*,** Syed Farooq Adil, Abdulrahman Al-Warthan, Hamad Z. Alkhathlan, Wolfgang Tremel, Muhammad Nawaz Tahir and Mohammed Rafiq H Siddiqui\*

*Catalysts*. **2017**; 7(1):20-33.

1. Miswak mediated green synthesized palladium nanoparticles as effective catalysts for the suzuki coupling reactions in aqueous media.

M. Khan, G. H. Albalawi, M. R. Shaik, **M. Khan,** S. F. Adil, M. Kuniyil, H. Z. Alkhathlan, A. Al-Warthan\*, M. R. H. Siddiqui\*.

*Journal of Saudi Chemical Society*. **2016**; *In press*.

1. Green synthesis and characterization of palladium nanoparticles using *Origanum vulgare* extract and their catalytic activity.

Mohammed Rafi Shaik, Zuhur Jameel Qandeel Ali, Mujeeb Khan, Mufsir Kuniyil, Mohamed E. Assal, Hamad Z. Alkhathlan, Abdulrahman Al-Warthan, Mohammed Rafiq H. Siddiqui, **M. Khan\*** and Syed Farooq Adil\*.

*Molecules*. **2016**; ***Submitted*.**

1. The Steering Pathway: Ketene-Claisen Rearrangement (KCR)- 1978-2016.

Adeem Mahmood\*, **M. Khan** and Hamad Z. Alkhathlan\*.

*Tetrahedron*. **2016**; ***Submitted*.**

1. Secondary Metabolites from Two Unexplored *Plectrenthus* Species.

Muneera S. M. Al-Saleem, **M. Khan** and Hamad Z. Alkhathlan\*.

*Tetrahedron*. **2016**; ***Manuscript*.**

1. Determination of chemical constituents of essential oils extracted from aerial parts and aqueous distillates of *Origanum vulgare* L. grown in Saudi Arabia and evaluation of their antimicrobial activities.

Merajuddin Khan, Shams Tabrez Khan, Noor A. Khan, Adeem Mahmood, Abdulaziz A. Al-Kedhairy, Hamad Z. Alkhathlan\*.

*Tetrahedron*. **2016**; ***Manuscript*.**

1. Thymol and carvacrol induces autolysis, stress, growth inhibition and reduces the biofilm formation by *Streptococcus mutans*.

Shams Tabrez Khan\*, Merajuddin Khan, Javed Ahmad, Omar H. Abd-Elkader, Javed Musarrat, Hamad Z. Alkhathlan\*, Abdulaziz A. Al-Kedhairy.

*Tetrahedron*. **2016**; ***Manuscript*.**

**6. 2. PATENTS**

*Granted/published/filed/under preparation*

1. Process for isolation of anticancer agent camptothecin from *Nothapodytes foetida*.

 S. K. Srivastava, **M. Khan** and S. P. S. Khanuja.

**United State Patent. 6,893,668. May 17, 2005.**

1. An improved process for isolation of camptothecin from nothapodytes foetida.

 S. K. Srivastava, **M. Khan** and S. P. S. Khanuja.

**Indian Patent. 228264. March 27, 2009.**

1. Process for isolation of hepatoprotective agent “oleanolic acid” from *Lantana camara*.

S. K. Srivastava, **M. Khan** and S. P. S. Khanuja.

**United State Patent. 6,884,908. April 26, 2005.**

1. Process for isolation of hepatoprotective agent “oleanolic acid” from *Lantana camara*.

S. K. Srivastava, **M. Khan** and S. P. S. Khanuja.

**European patent. EP 1732875 B1. May 15, 2013.**

1. Process for the isolation of oleane compounds isolated from the bark of Arjun tree *Terminalia arjuna* (Roxb.).

S. P. S. Khanuja, M. M. Gupta, S. K. Srivastava, T. R. S. Kumar, Digvijay Singh, S. C. Verma, A. Garg, **M. Khan,** R. K. Verma, R. K. Mishra, S. C. Singh.

**United State Patent. 7,435,433. October 14, 2008.**

1. An improved process for the isolation of arjunic acid from the bark of the tree *Terminalia arjuna* and the use of this compound in the treatment of cancer.

S. P. S. Khanuja, M. M. Gupta, S. K. Srivastava, T. R. S. Kumar, Digvijay Singh, S. C. Verma, A. Garg, **M. Khan,** R. K. Verma, R. K. Mishra, S. C. Singh.

**European patent. EP 1951739 B1. March 30, 2013.**

1. Loganin analogues and a process for the preparation thereof.

S. P. S. Khanuja, S. K. Srivastava, Ankur Garg, **M. Khan,** M. P. Darokar and Anirban Pal.

**United State Patent** [**7,767,798**](http://www.google.com/patents/US7767798)**. August 3, 2010.**

1. Novel loganin analogues and a process for the preparation thereof.

S. P. S. Khanuja, S. K. Srivastava, Ankur Garg, **M. Khan,** M. P. Darokar and Anirban Pal.

**European Patent: EP1963349B1. October. 24, 2012.**

1. An easy and economical process for the isolation of hepatoprotective agent ‘loganin’ from the fruits of *“Strychnos nux-vomica”*.

S. K. Srivastava, **M. Khan** and S. P. S. Khanuja. (**Under preparation).**

**7. Seminars/Symposiums**

* Presented a scientific paper at 5th Saudi science conference organized by Umm Al Qura University, Makkah, Kingdom of Saudi Arabia, **April 16-18, 2012.**
* Participated in 4th International conference of Chemistry organized by Deapartment of Chemistry, King Saud University, Riyadh, Kingdom of Saudi Arabia, **November 19-21, 2011.**
* Participated in Saudi International petrochemical technologies conference organized by King Abdul Aziz City for Science and Technology (KACST), Riyadh, Kingdom of Saudi Arabia, **June 6-7, 2011.**
* Presented a scientific paper at 4th Saudi science conference organized by Taibah University, Al-Madina Al-Munawarah, Kingdom of Saudi Arabia, **March 21-24, 2010.**
* Chemical constituents from the wood of *Magnolia grandiflora*, **Poster presentation** in Proceedings of the spring international convention “From the new drug development to human well-being” International convention center, Jeju, Republic of Korea, **April 30-May 3, 2008.**
* Immunomudulator and anticancer activity of sesamin, **Poster presentation** in Proceedings of the Korean Society of Wood Science and Technology (KSWST) Annual Meeting Symposium, GyeongSang National University, Jinju, Korea, **April 17-18, 2008.**
* Furofuran lignans from the bark of *Magnolia kobus*, **Oral presentation** in Proceedings of the Korean Society of Wood Science and Technology (KSWST) Annual Meeting Symposium, Chonnam National University, Yeosu campus, Yeosu, Korea, **April 19-20, 2007.**
* Benzofurans from the seeds of *Styrax obassia*, **Poster presentation** in Proceedings of the Korean Society of Wood Science and Technology (KSWST) Annual Meeting Symposium, Chonnam National University, Yeosu campus, Yeosu, Korea, **April 19-20, 2007.**
* Participated in Roving seminar on IPR in Biotechnology sponsored by DBT and WIPO at Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow-226015, India**, October 4, 2002.**
* Natural Dyes from agricultural produce including wastes and their applications, **Poster presentation** in National Seminar on Indian Natural Coloring Agent Beyond 2000AD, National Academy of Chemistry and Biology, Lucknow, India, **February 11-13, 2000.**