

## CURRICULUM VITAE

### **Professor (Dr.) Fahad M. A. Al-Hemaid, Ph.D.**

Department of Botany and Microbiology  
College of Sciences  
King Saud University  
P.O Box-2455  
Riyadh-11451  
Saudi Arabia



**E-mail:** fhemaid@ksu.edu.sa

**Tel.:** +9664675834 (office)  
+966-534509366 (mobile)  
+966-4675833 (fax)

**Home page:**

<http://faculty.ksu.edu.sa/3822/Pages/CURRICULUM%20VITAE.aspx>

#### **Education:**

1991 Ph.D. University of Aberdeen, Scotland, United Kingdom

1984-1991 Post-Graduate, University of Aberdeen, Scotland, United Kingdom

1983 Graduation: University: King Saud University

#### **Professional experience:**

Teaching and Research experience of about 25 years in KSU

2010-2014: Chairman, Department of Botany and Microbiology, College of Sciences , King Saud University, Riyadh

#### **Employment History:**

2003-till date: Professor, Department of Botany & Microbiology, KSU, Riyadh

1997-2003: Associate Professor, Department of Botany & Microbiology, KSU, Riyadh

1991-1997: Assistant Professor, Department of Botany & Microbiology, KSU, Riyadh

1983-1984: Demonstrator, Department of Botany & Microbiology KSU, Riyadh

### Study Visits Abroad:

2003 University of Queens Land, Brisbane, Australia (7 weeks)

2002 University of Western Australia, Perth, Australia, (6 weeks)

1999 Royal Botanic Gardens, Kew, Edinburg, the Natural History Museum (7 weeks)

1998 Royal Botanic Gardens, Kew, and the Natural History Museum (6 weeks)

1997 Royal Botanic Gardens, Kew, and the Natural History Museum (8 weeks)

### Research interest:

Cell and Molecular Biology, Plant Bioprospecting, Nanobiotechnology, Molecular Phylogenetics

### Grant Support:

2011 to continue: Co-Investigator in Research Group Project (# RGP-VPP-195), Deanship of Scientific Research, King Saud University, Riyadh, Saudi Arabia

### Present research activity:

- Molecular systematic studies on endemic plants of Saudi Arabia based on internal transcribed spacer sequences of nuclear ribosomal DNA
- Plant bioprospecting studies of the wild plants from Saudi Arabia

### Supervision of Doctoral Thesis:

- Suliman Mohammed Al-Ghanem (2013) Molecular evolutionary studies on the genus *Limonium* (Plumbaginaceae) from Saudi Arabia using internal transcribed spacer sequences of nuclear ribosomal DNA
- Mesfer Mashabb Saed Al-Qahatani (2013) Molecular phylogenetic studies on *Euphorbia schimperiana* inferred from internal transcribed spacer sequences of nuclear ribosomal
- Fahad Mohammed Alzeibr (2013) Phylogenetic relationships of *Nepeta sheilae* (an endemic species to Saudi Arabia) within the genus based on internal transcribed spacer sequences of nuclear ribosomal DNA
- Sanad Mutlaq Al-Sobeai (2013) Assessment of genetic diversity of *Anastatica hierochuntica* (kaff maryam) from Saudi Arabia based on internal transcribed spacer sequences of nuclear ribosomal DNA gene
- Mohammad Ibrahim Alallah: Evaluation of medicinal plants from Fayfa and Wadi Dhamad region with special reference to bioprospecting of plant with anticancer activity (under progress)

- Mohamed S. Elshikh (2015) Molecular evolutionary studies on *Polygonum palaestinum* Zohary (Polygonaceae) from Saudi Arabia using ITS sequences of nuclear ribosomal DNA (under progress)

#### **Membership of Scientific Societies:**

- Saudi Biological Society since 1983
- Working Group of Plants, NCWCD since 1997
- Arabian Plant Specialist Group (APSG) since 1999
- IUCN since 2000
- SSG/IUCN since 2000
- Saudi Society of Agricultural Sciences (SSAS) since 2001

#### **Workshops attended:**

- 2001 Workshop on Trees and bushes suitable in Saudi habitat (March 2001) Riyadh, organized by Min. of Agriculture and Water
- 2000 IUCN Red List workshop, Riyadh, organized by NCWCD.

#### **DNA sequences**

ITS, trnL-F sequences of about 50 plants mainly from Saudi Arabia generated and submitted to NCBI GenBank

#### **Organization of Workshop:**

- Workshop on Fundamentals of Bioinformatics, at molecular Phylogenetics, Bioinformatics and Plant bioprospecting Laboratory, Department of Botany and Microbiology, College of Science, King Saud University, Riyadh, Saudi Arabia (Dated April 18, 2012)
- Workshop on Plant Molecular Taxonomy, at Molecular Phylogenetics, Bioinformatics and Plant bioprospecting Laboratory, Department of Botany and Microbiology, College of Science, King Saud University, Riyadh, Saudi Arabia (December 10, 2011)

#### **Experiences:**

- Teaching: Graduate and Post Graduate course, Molecular phylogenetics, Plant taxonomy, Field Systematic, Bioinformatics at King Saud University, Riyadh, Saudi Arabia, Post Graduate practical course, Plant Systematics, at TMBU, Bhagalpur, Bihar, India
- Molecular Systematics experimental techniques: DNA extraction, Automated DNA extraction Qiagen-QIAcube, Polymerase Chain Reaction, Agarose Gel Electrophoresis, DNA sequencing
- Bioinformatics: Phylogenetic analysis (PAUP 4.0, MacClade, BioEdit, DNA for windows, ClustalX, MEGA5, MrBayes, SeaView, Sequence Navigator, GenAlEx, dnaSP, TCS,

ITS2workbench, ProfDist, 4SALE, CBC analyser, ITS2 secondary structure prediction),  
Molecular docking (PyRx, Chemsketch, Autodoc, HEX, Chimera, RASMOL, LigPlot+, SAVE)

- Microscopy: Scanning Electron Microscopy, florescence microscopy
- Plant bioprospecting: Animal Cell culture (MCF-7, HFS), Cytotoxicity (Trypan Blue assay, MTT assay), Determination of DNA damage (DNA apoptosis ladder assay, COMET assay), Intracellular reactive oxygen species (ROS) measurement, Flow cytometry (Annexin-V FITC apoptosis induction assay by flow cytometry), Detection of autophagy by acridine orange staining, RT PCR, UV-spectrophotometer, ELISA, Natural product characterization (Preparative HPLC, GCMS, LCMSMS)
- Bionanotechnology: Plant mediated nanoparticles synthesis, nanoparticles characterization (FTIR, TEM, XRD)

#### **Seminar/ Symposia/Conferences:**

- 2002 Meeting on the Sustainable Agricultural organized by Saudi Society of Agricultural Sciences
- 2000 International Conference on Economics and Conservation of Renewable Natural Resources in Arid Zones Riyadh
- 2000 Second General meeting of the Arabian Plant Specialist Group (APSG/IUCN), Abu Dhabi, UAE

#### **University and Community Services**

- Provided assistance and advice to University staff and scientists working in other Government
- bodies in identifying the wild plants of Saudi Arabia.
- Evaluated several scientific papers submitted to different Journal of Publication.
- Evaluated many scientific projects of several Universities and Institutions.
- Popular talk for public awareness on "Destruction of habitats is the first cause of species extinction" organized by NCWCD in Riyadh, 24th August 2000.
- Popular talk for public awareness on "Conservation of the nature" organized by Friends of Nature
- in Al-Ghad district, Kingdom of Saudi Arabia, 11. 08. 1421 H.
- Popular talk for public awareness on "Dieback phenomena in Juniper forest" organized by King
- Saud University in Abha, Kingdom of Saudi Arabia, 15th July 2002.
- Popular talk for public awareness on Conservation of the nature" organized by KSU in Abha,

- Kingdom of Saudi Arabia, 23rd July 2002.
- Seminar on Sceneries of Empty Quarters (Rub – Al-Khali), Faculty of Arts, King Saud University.
- 2006.
- Seminar on Sceneries of Empty Quarters (Rub – Al-Khali), Faculty of Foods and Agriculture, King Saud University. 2006.
- Seminar on Sceneries of Empty Quarters (Rub – Al-Khali), Post-Graduate Students, Faculty of Science, King Saud University. 2007.

### **Committees**

- Member of the Ecological and Taxonomical Units, Faculty of Science, King Saud University.
- Since 1991
- Chairman Ecological Unit, Department of Botany and Microbiology, Faculty of Science, King Saud University. 1999-2001.
- Member of the Management Committee of the Green House and Ecological Laboratory, Department of Botany and Microbiology, King Saud University. 1992-1995.
- Chairman of the Committee of Educational Activities, Department of Botany and Microbiology, King Saud University, 1992-1998.
- Secretary of the Department Council, Department of Botany and Microbiology, Faculty of Science, King Saud University. 1999-2000.
- Member of the Arranging Committee for General Botany between College of Science and College of Agriculture. 1996-1997.
- Member of the Scholarship Committee for Demonstrators and post-graduate students, Department of Botany and Microbiology, since 2001.
- Member of the Biodiversity Council, Faculty of Science, King Saud University. 2004-2006.

### **Publications (in last five years):**

#### **Books**

M. Ajmal Ali, G. Gábor and F. Al-Hemaid (2015) Plant DNA Barcoding and Phylogenetics. Lambert Academic Publishing, Germany. ISBN: 978-3-659-28095-5; <https://www.lap-publishing.com/catalog/details//store/gb/book/978-3-659-28095-5/plant-dna-barcoding-and-phylogenetics>. 320 pages  
(<http://faculty.ksu.edu.sa/78343/CV/Plant%20DNA%20barcoding%20Lambert1.pdf>)

## Research Papers (2011-2016)

### 2016

- Gurung, A.B., M.A. Ali, A. Bhattacharjee, M. Abul Farah, F. Al-Hemaid, F.M. Abou-Tarboush, K.M. Al-Anazi, J. Lee (2016) Molecular docking of anticancer bioactive compound Proceraaside with macromolecules involved in cell cycle and DNA replication. Genetics and Molecular Research (Accepted), ISI Thomson Reuters Impact Factor: 0.7).
- Abul Farah, M., M.A. Ali, S.M. Chen, Y. Li, F.M. Al-Hemaid, F.M. Abou-Tarboush, K.M. Al-Anazi, Joongku Lee (2016) Silver nanoparticles synthesized from *Adenium obesum* leaf extract induced DNA damage, apoptosis and autophagy via generation of reactive oxygen species. Colloids and Surfaces B: Biointerfaces. 141: 158-169  
(<http://www.sciencedirect.com/science/article/pii/S0927776516300273>, ISI Thomson Reuters Impact Factor: 4.1).
- Gurung, A.B., A. Bhattacharjee, M.A. Ali, F. Hemaid, J. Lee (2016) Binding of small molecules at interface of protein-protein complex- A newer approach to rational drug design. Saudi Journal of Biological Sciences ( <http://www.sciencedirect.com/science/article/pii/S1319562X16000103>, ISI Thomson Reuters Impact Factor: 1.27).
- Ali, M.A., M.A. Farah, F.M. Al-Hemaid, F.M. Abou-Tarboush, K.M. Al-Anazi, S.M. Wabaidur, Z.A. Alothman and J. Lee (2015) Assessment of biological activity and UPLC-MS based chromatographic profiling of ethanolic extract of *Ochradenus arabicus*. Saudi Journal of Biological Sciences 23, 229–236  
(<http://www.sciencedirect.com/science/article/pii/S1319562X15000492> , ISI Thomson Reuters Impact Factor: 1.27).

### 2015

- Al-Hemaid, F.M.A., M.A. Ali, J. Lee, S.Y. Kim and M.O. Rahman (2015) Molecular evolutionary relationships of *Euphorbia Scordifolia* Jacq. within the genus inferred from analysis of internal transcribed spacer sequences. Bangladesh J. Plant Taxon. 22(2): 111-118, 2015.  
(<http://www.banglajol.info/index.php/BJPT/article/view/26072> , ISI Thomson Reuters Impact Factor: 0.696).
- Ali, M.A., F.M. Al-Hemaid, J. Lee, A.A. Hatamleh, G. Gyulai and M.O. Rahman (2015) Unraveling systematic inventory of *Echinops* (Asteraceae) with special reference to nrDNA ITS sequence based molecular typing of *Echinops abuzinadianus*. Genetics and Molecular Research 14 (4): 11752-11762. (<http://www.geneticsmr.com/articles/5142> , ISI Thomson Reuters Impact Factor: 0.7).
- Gurung, A.B., B.J. Myllemngap, A. Bhattacharjee, M.A. Ali and F.M.A. Al-Hemaid (2015) Interactome analysis and design of inhibitors against selected protein targets of Ser/Thr protein kinase (STPK) signaling pathways in *Mycobacterium tuberculosis* H37Rv. Genetics and Molecular Research 14 (3): 10390-10403 (<http://geneticsmr.com/articles/5002> , ISI Thomson Reuters Impact Factor: 0.7).
- Ali M.A., J. lee, S.Y. Kim, S.H. Park and F.M.A. Al-Hemaid (2015) Molecular phylogenetic analyses of internal transcribed spacer sequences of nuclear ribosomal DNA defined monophyly of the genus *Phytolacca* L. (Phytolaccaceae). Bangladesh Journal of Plant Taxonomy 22(1): 1-8,

2015. (<http://www.banglajol.info/index.php/BJPT/article/viewFile/23859/16315> , ISI Thomson Reuters Impact Factor: 0.696).
- Palanisamy, S., C. Karuppiyah, S.M. Chen, K. Muthupandi, R. Emmanuel, P. Prakash, M.S. Elshikh, M.A. Ali, F.M.A. Al-Hemaid (2015) Selective and simultaneous determination of dihydroxybenzene isomers based on green synthesized gold nanoparticles decorated reduced graphene oxide. *Electroanalysis* 27:1144-1151. (<http://onlinelibrary.wiley.com/doi/10.1002/elan.201400657/abstract> , ISI Thomson Reuters Impact Factor 2.138).
- Devasenathipathy, R., C. Karuppiyah, S.M. Chen, S. Palanisamy, B.S. Lou, M.A. Ali and F.M.A. Al-Hemaid (2015) A sensitive and selective enzyme-free amperometric glucose biosensor using a composite from multi-walled carbon nanotubes and cobalt phthalocyanine. *RSC Advances* 5: 26762-26768. (<http://pubs.rsc.org/en/content/articlelanding/2015/ra/c4ra17161f#!divAbstract> , ISI Impact Factor 3.84).
- Palanisamy, S., B. Thirumalraj, S.M. Chen, M.A. Ali, F.M.A. Al-Hemaid (2015) Palladium nanoparticles decorated on activated fullerene modified screen printed carbon electrode for enhanced electrochemical sensing of dopamine. *Journal of Colloid and Interface Science* 448: 251–256. (<http://www.sciencedirect.com/science/article/pii/S002197971500168X> , ISI Thomson Reuters Impact Factor 3.368).
- Karuppiyah, C., K. Muthupandi, S.M. Chen, M.A. Ali, S. Palanisamy, A. Rajan, P. Prakash, F.M.A. Al-Hemaid and B.S. Lou (2015) Green synthesized silver nanoparticles decorated on reduced graphene oxide for enhanced electrochemical sensing of nitrobenzene in waste water samples. *RSC Advances* 5: 31139-31146. (<http://pubs.rsc.org/en/Content/ArticleLanding/2015/RA/c5ra00992h#!divAbstract> , ISI Thomson Reuters Impact Factor 3.84).
- Palanisamy, S., R. Devasenathipathy, S.M. Chen, M.A. Ali, C. Karuppiyah, V. Balakumar, P. Prakash, M.S. Elshikh and F.M.A. Al-Hemaid (2015) Direct electrochemistry of glucose oxidase at reduced graphene oxide and b-Cyclodextrin composite modified electrode and application for glucose biosensing. *Electroanalysis* 27: 2412-2420 (<http://onlinelibrary.wiley.com/doi/10.1002/elan.201500150/abstract> , ISI Thomson Reuters Impact Factor 2.138).
- Devasenathipathy, R., R. Karthik, S.M. Chen, V. Mani, V.S. Vasantha, M.A. Ali, M.S. Elshikh, B.S. Lou and F.M.A. Al-Hemaid (2015) Potentiostatic electrochemical preparation of bismuth nanoribbons and its application in biologically poisoning lead and cadmium heavy metal ions detection. *Electroanalysis* 27 (10): 2341–2346 (<http://onlinelibrary.wiley.com/doi/10.1002/elan.201500255/abstract> , ISI Thomson Reuters Impact Factor: 2.502).
- Devasenathipathy, R., R. Karthik, S.M. Chen, M.A. Ali, V. Mani, B.S. Lou, F.M.A. Al-Hemaid (2015) Enzymatic glucose biosensor based on bismuth nanoribbons electrochemically deposited on graphene oxide. *Microchim Acta* 182:2165–2172 (<http://link.springer.com/article/10.1007%2Fs00604-015-1545-1> , ISI Thomson Reuters Impact Factor: 3.719).
- Karuppiyah, C., M. Velmurugan, S.M. Chen, S.H. Tsai, B.S. Lou, M. A. Ali, F.M.A. Al-Hemaid (2015) A simple hydrothermal synthesis and fabrication of zinc oxide–copper oxide heterostructure for the sensitive determination of nonenzymatic glucose biosensor. *Sensors and Actuators B* 221: 1299–1306. (<http://www.sciencedirect.com/science/article/pii/S0925400515301325> , ISI Thomson Reuters Impact Factor: 4.097).

- Palanisamy, S., B. Thirumalraj, S.M. Chen, M.A. Ali, K. Muthupandi, R. Emmanuel, P. Prakash, and F.M.A. Al-Hemaid (2015) Fabrication of silver nanoparticles decorated on activated screen printed carbon electrode and its application for ultrasensitive detection of dopamine. *Electroanalysis* 27:1998-2006. (<http://onlinelibrary.wiley.com/doi/10.1002/elan.201500079/abstract> , ISI Thomson Reuters Impact Factor: 2.502).
- Veerappan M., R. Devasenathipathy, S.M. Chen, V. S. Vasantha, M.A. Ali, S.T. Huang and F.M.A. Al-Hemaid (2015) A simple electrochemical platform based on pectin stabilized gold nanoparticles for picomolar detection of biologically toxic amitrole. *Analyst* 140: 5764-5771. (<http://pubs.rsc.org/en/Content/ArticleLanding/2015/AN/c5an00930h#!divAbstract> , ISI Thomson Reuters Impact Factor: 4.107).
- Devasenathipathy, R., S. Palanisamy, S.M. Chen, C. Karuppiah, V. Mani, S.K. Ramaraj, M.A. Ali and F.M.A. Al-Hemaid (2015) An amperometric biological toxic hydrazine sensor based on multiwalled carbon nanotubes and iron tetrasulfonated phthalocyanine composite modified electrode. *Electroanalysis* 27(6):1403-1410. (<http://onlinelibrary.wiley.com/doi/10.1002/elan.201400659/abstract> , ISI Thomson Reuters Impact Factor: 2.502).
- Emmanuel, R., P. Selvakumar, S.M. Chen, K. Chelladurai, S. Padmavathy, M. Saravanan, P. Prakash, M.A. Ali and F.M.A. Al-Hemaid (2015) Antimicrobial efficacy of green synthesized drug blended silver nanoparticles against dental caries and periodontal disease causing microorganisms. *Materials Science and Engineering: C Materials for Biological Applications* 56: 374-379. (<http://www.sciencedirect.com/science/article/pii/S0928493115301661> , ISI Thomson Reuters Impact Factor: 3.088).
- Devadas, B., S. Cheemalapati, S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2015) Highly sensing graphene oxide/poly-arginine-modified electrode for the simultaneous electrochemical determination of bupirone, isoniazid and pyrazinamide drugs. *Ionics* 21: 547-555. (<http://link.springer.com/article/10.1007%2Fs11581-014-1179-z#page-1> , ISI Thomson Reuters Impact Factor: 1.836).

## 2014

- Karuppusamy, S., M.A. Ali, K.M. Rajasekaran, J. Lee, S.Y. Kim, A.K. Pandey and F.M.A. Al-Hemaid (2014) A new species of *Hydrocotyle* L. (Araliaceae) From India. *Bangladesh Journal of Plant Taxonomy* 21(2): 167-173. (<http://www.banglajol.info/index.php/BJPT/article/view/21356> , ISI Thomson Reuters Impact Factor: 0.696).
- Al-Hemaid, F.M.A., M.A. Ali, J. Lee, G. Gyulai and A.K. Pandey (2014) Application of internal transcribed spacer of nuclear ribosomal DNA for identification of *Echinops mandavillei* Kit Tan. *Bangladesh Journal of Plant Taxonomy* 21(1): 33-42. (<http://www.banglajol.info/index.php/BJPT/article/view/19256> , ISI Thomson Reuters Impact Factor: 0.696).
- Ali, M.A., G. Gyulai, N. Hidvégi, B. Kerti, F.M.A. Al-Hemaid, A.K. Pandey and J. Lee (2014) The changing epitome of species identification – DNA barcoding. *Saudi Journal of Biological Sciences* 21(3):204-31. (<http://www.sciencedirect.com/science/article/pii/S1319562X14000321> , ISI Thomson Reuters Impact Factor: 1.27).



- Shah, M.A., M.A. Ali, F.M. Al-Hemaid and Z. A. Reshi (2014) Delimiting invasive *Myriophyllum aquaticum* in Kashmir Himalaya using molecular phylogenetic approach. *Genetics and Molecular Research* 13(3):7564-7570. (<http://www.funpecrp.com.br/gmr/year2014/vol13-3/pdf/gmr4040.pdf> , ISI Thomson Reuters Impact Factor: 0.7).
- Ali, M.A., M.A. Farah, F.M.A. Al-Hemaid and F.M. Abou-Tarboush (2014) *In vitro* cytotoxicity screening of some wild plants extracts from Saudi Arabia on human breast adenocarcinoma cells. *Genetics and Molecular Research* 13(2):3981-3990. (<http://www.funpecrp.com.br/gmr/year2014/vol13-2/pdf/gmr3535.pdf> , ISI Thomson Reuters Impact Factor: 0.7).
- Ezhil Viliana, A.T., S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2014) Direct electrochemistry of glucose oxidase immobilized on ZrO<sub>2</sub> nanoparticles-decorated reduced graphene oxide sheets for a glucose biosensor. *RSC Advances* 4: 30358-30367. (<http://pubs.rsc.org/en/content/articlelanding/2014/ra/c4ra04350b#!divAbstract> , ISI Thomson Reuters Impact Factor: 3.708).
- Cheemalapati, S., B. Devadas, S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2014) Electrochemical determination of selected antihypertensive and antituberculosis drugs at tyrosine modified electrode. *Analytical Methods* 6 (17): 6774-6782. (<http://pubs.rsc.org/en/content/articlelanding/2014/ay/c4ay00904e#!divAbstract> , ISI Thomson Reuters Impact Factor: 1.938).
- Cheemalapati, S., S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2014) Enhanced electrocatalytic oxidation of anti-tuberculosis drug isoniazid at highly electrocatalytic modified rhodium electrode and its detection in biological and pharmaceutical samples. *Colloids and Surfaces B: Biointerfaces* 121: 444-450. (<http://www.sciencedirect.com/science/article/pii/S0927776514003208> , ISI Thomson Reuters Impact Factor: 4.287).
- Ezhil Vilian, A.T., S.M. Chen, Y.T. Hung, M.A. Ali and F.M.A. Al-Hemaid (2014) Electrochemical oxidation and determination of norepinephrine in the presence of acetaminophen using MnO<sub>2</sub> nanoparticle decorated reduced graphene oxide sheets. *Analytical Methods* 6: 6504-6513. (<http://pubs.rsc.org/en/Content/ArticleLanding/2014/AY/C4AY00878B#!divAbstract> ) ISI Thomson Reuters Impact Factor: 1.938).
- Karuppiah, C., S. Palanisamy, S.M. Chen, R. Emmanuel, M.A. Ali, P. Muthukrishnan, P. Prakash and F.M.A. Al-Hemaid (2014) Green biosynthesis of silver nanoparticles and nanomolar detection of p-nitrophenol. *Journal Solid State Electrochemistry* 18: 1847-1854 (<http://link.springer.com/article/10.1007%2Fs10008-014-2425-z#page-1>) ISI Thomson Reuters Impact Factor: 2.279).
- Tsai, T.H., P.C. Yeh, S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2014) Effect of electrostatic interaction on electrodeposition of nickel hexacyanoferrate with functional MWCNT and their application for the determination of persulfate and tannic acid. *Electroanalysis* 26: 971-979. (<http://onlinelibrary.wiley.com/doi/10.1002/elan.201300625/abstract> ) ISI Thomson Reuters Impact Factor: 2.817).
- Li, Y., S.M. Chen, R. Thangamuthu, M.A. Ali and F.M.A. Al-Hemaid (2014) Preparation, characterization and bioelectrocatalytic properties of hemoglobin incorporated multi-walled carbon nanotubes-poly-L-lysine composite film modified electrodes towards bromated. *Electroanalysis* 26: 996-1003. (<http://onlinelibrary.wiley.com/doi/10.1002/elan.201400066/abstract>) ISI Thomson Reuters Impact Factor: 2.817).

- Li, Y., M.A. Ali, S.M. Chen, S.Y. Yang, B.S. Lou and F.M.A. Al-Hemaid (2014) Poly (Basic Red 9) doped functionalized multi-walled carbon nanotubes as composite film for neurotransmitters biosensors. *Colloids and Surface B: Biointerfaces* 118:133-139. (<http://www.sciencedirect.com/science/article/pii/S0927776514001210> ) ISI Thomson Reuters Impact Factor: 3.554).
- Ezhil Vilian, A.T., S.M. Chen, Y.H. Chen, M.A. Ali and F.M.A. Al-Hemaid (2014) An electrocatalytic oxidation and voltammetric method using a chemically reduced graphene oxide film for the determination of caffeic acid. *Journal of Colloid and Interface Science* 423: 33-40. (<http://www.sciencedirect.com/science/article/pii/S0021979714000927> ) ISI Thomson Reuters Impact Factor: 2.817).
- Tsai, T.H., S.H. Ku, S.M. Chen, B.S. Lou, M.A. Ali and F.M.A. Al-Hemaid (2014) Electropolymerized diphenylamine on functionalized multiwalled carbon nanotube composite film and its application to develop a multifunctional sensor. *Electroanalysis* 26: 399-408. (<http://onlinelibrary.wiley.com/doi/10.1002/elan.201300495/pdf>) ISI Thomson Reuters Impact Factor: 2.817).
- Ezhil Vilian, A.T., S.M. Chen, L.H. Huang, M.A. Ali and F.M.A. Al-Hemaid (2014) Simultaneous determination of catechol and hydroquinone using a Pt/ZrO<sub>2</sub>-RGO/GCE composite modified glassy carbon electrode. *Electrochimica Acta* 125: 503-509. (<http://www.sciencedirect.com/science/article/pii/S00134686140016011>) ISI Thomson Reuters Impact Factor: 3.777).
- Li, Y., W.C. Chen, S.M. Chen, B.S. Lou, M.A. Ali and F.M.A. Al-Hemaid (2014) Detection of real sample DNA at a cadmium sulfide – chitosan/gelatin modified electrode. *Colloids and Surfaces B: Biointerfaces* 113: 85-91. (<http://www.sciencedirect.com/science/article/pii/S0927776513005456>) ISI Thomson Reuters Impact Factor: 3.554).
- Li, Y, P.C. Hsu, S.M. Chen, B.S. Lou, M.A. Ali, and F.M.A. Al-Hemaid (2014) Simultaneously determination of procaine and catechol at functionalized multi-walled carbon nanotube with poly-glutamic acid modified electrode. *Journal of Biobased Materials and Bioenergy* 8, 149-157. (<http://www.aspbs.com/jbmbe.html>) ISI Thomson Reuters Impact Factor: 0.826).

## 2013

- Li, Y., S.H. Ku, S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2013) Photoelectrochemistry for red cabbage extract as natural dye to develop a dye-sensitized solar cells. *International Journal of Electrochemical Science* 8: 1237-1245. (<http://www.electrochemsci.org/papers/vol8/80101237.pdf>, ISI Thomson Reuters Impact Factor: 3.725).
- Ali, M.A., F.M.A. Al-Hemaid, A.K. Pandey and J. Lee (2013) Taxonomic significance of spermoderm pattern in Cucurbitaceae. *Bangladesh Journal of Plant Taxonomy* 20(1): 61-65, 2013. (<http://www.banglajol.info/index.php/BJPT/article/view/15465>, ISI Thomson Reuters Impact Factor: 0.696).
- Kumar, S.R., F.M.A. Al-Hemaid, N.A. Al-Dhabi, C. Muthukumar, M.A. Ali and N. Thajuddin (2013) Distribution of epiphytic cyanobacteria on lichens from Eastern Ghats of Tamil Nadu, India. *Journal of Pure and Applied Microbiology* 7(1): 515-522. (ISI Thomson Reuters Impact Factor: 0.05).

Li, Y., S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2013) Biosynthesis and electrochemical characterization of silver nanoparticles from leaf extract of *Adenium obesum* and its application to antibacterial effect. International Journal of Electrochemical Science 8: 2691-2701. (<http://www.electrochemsci.org/papers/vol7/71212742.pdf>) ISI Thomson Reuters Impact Factor: 3.725).

Ali, M.A., F.M.A. Al-Hemaid, R.K. Choudhary, J. Lee, S.Y. Kim and M.A. Rub (2013) Status of *Reseda pentagyna* Abdallah & A.G. Miller (Resedaceae) inferred from analysis of combined nuclear ribosomal and chloroplast sequence data. Bangladesh Journal of Plant Taxonomy 20(2): 233-238. (<http://www.banglajol.info/index.php/BJPT/article/view/17397> , ISI Thomson Reuters Impact Factor: 0.696).

## 2012

Li, Y., S.M. Chen, T.Y. Wu, S.H. Ku, M.A. Ali and F.M.A. Al-Hemaid (2012) Immobilization of laccase into poly (3,4-Ethylenedioxythiophene) assisted biocathode for biofuel cell applications. International Journal of Electrochemical Science 7: 11400-11413. (<http://www.electrochemsci.org/papers/vol7/71111400.pdf>, ISI Thomson Reuters Impact Factor: 3.725).

Ali, M.A., F.M. Al-Hemaid, J. Lee, R.K. Choudhary, A.K. Pandey and N.A. Al-Harbi (2012) Assessing nrDNA ITS2 sequence based molecular signature of ginseng for potential use in quality control of drug. African Journal of Pharmacy and Pharmacology 6(39): 2767-2774. (<http://www.academicjournals.org/ajpp/PDF/pdf2012/22%20Oct/Ali%20et%20al.pdf>, ISI Thomson Reuters Impact Factor: 0.84).

Li, Y., T.Y. Wu, S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2012) Green synthesis and electrochemical characterizations of gold nanoparticles using leaf extract of *Magnolia kobus*. International Journal of Electrochemical Science 7: 12742-12751. (<http://www.electrochemsci.org/papers/vol7/71212742.pdf>, ISI Thomson Reuters Impact Factor: 3.725).

Ali, M.A., J. Lee, S.Y. Kim and F.M.A. Al-Hemaid (2012) Molecular phylogenetic study of *Cardamine amaraeformis* Nakai using nuclear and chloroplast DNA markers. Genetics and Molecular Research 11(3): 3086-3090. (<http://www.funpecrp.com.br/gmr/year2012/vol11-3/pdf/gmr1904.pdf>, ISI Thomson Reuters Impact Factor: 1.184).

Li, Y., S.M. Chen, C.Y. Yang, M.A. Ali and F.M.A. Al-Hemaid (2012) Bionanotechnology approach for FAD-dependent enzymes with nanomaterials sensor. Saudi Journal of Biological Sciences, 19: 465-471. (<http://www.sciencedirect.com/science/article/pii/S1319562X12000575>, ISI Thomson Reuters Impact Factor: 1.27).

## 2011

Li, Y., S.M. Chen, W.C. Chen, Y.S. Li, M.A. Ali and F.M.A. Al-Hemaid (2011) Platinum nanoparticles (PtNPs)- laccase assisted biocathode reduction of oxygen for biofuel cells. International Journal of Electrochemical Science 6: 6398- 6409. ([www.electrochemsci.org/papers/vol6/6126398.pdf](http://www.electrochemsci.org/papers/vol6/6126398.pdf), ISI Thomson Reuters Impact Factor: 3.725).

Tsai, T.H., Y.C. Huang, S.M. Chen, M.A. Ali and F.M.A. Al-Hemaid (2011) Fabrication of multifunctional biosensor for the determination of hydrogen peroxide, dopamine and uric acid. International

- Journal of Electrochemical Science 6: 6456-6468.  
([www.electrochemsci.org/papers/vol6/6126456.pdf](http://www.electrochemsci.org/papers/vol6/6126456.pdf), ISI Thomson Reuters Impact Factor: 3.725).
- Ali, M.A., F.M.A. Al-Hemaid, J. Lee, R.K. Choudhary, N.A. Al-Harbi and S.Y. Kim (2011) Genetic diversity assessment of *Diplocyclos palmatus* (L.) Jeffrey from India using ITS sequences of nuclear ribosomal DNA. African Journal of Biotechnology 10(72): 16145-16151.  
(<http://www.academicjournals.org/ajb/PDF/pdf2011/16Nov/Ali%20et%20al.pdf>, ISI Thomson Reuters Impact Factor: 0.8).
- Al-Qurainy, F., S. Khan, F.M. Al-Hemaid, M.A. Ali, M. Tarroum and M. Ashraf (2011) Assessing molecular signature for some potential date (*Phoenix dactylifera* L.) cultivars from Saudi Arabia based on chloroplast DNA sequences rpoB and psbA-trnH. International Journal of Molecular Sciences 12(10): 6871-6880. (<http://www.mdpi.com/1422-0067/12/10/6871>, ISI Thomson Reuters Impact Factor: 2.464).
- Ali, M.A. and F.M.A. Al-Hemaid (2011) Taxonomic significance of trichomes micromorphology in cucurbits. Saudi Journal of Biological Sciences 18(1): 87-92.  
(<http://www.sciencedirect.com/science/article/pii/S1319562X10001087>, ISI Thomson Reuters Impact factor: 1.27).
- Al-Qurainy, F., S. Khan, M. Tarroum, F.M.A. Al-Hemaid and M.A. Ali (2011) Molecular authentication of the medicinal herb *Ruta graveolens* (Rutaceae) and an adulterant using nuclear and chloroplast DNA markers. Genetics and Molecular Research 10(4): 2806-2816.  
([www.funpecrp.com.br/gmr/year2011/vol10-4/pdf/gmr1479.pdf](http://www.funpecrp.com.br/gmr/year2011/vol10-4/pdf/gmr1479.pdf), ISI Thomson Reuters Impact factor: 1.184).
- Ali, M.A., F.M.A. Al-Hemaid, F. Al-Qurainy, M. Tarroum and S. Khan (2011) Assessment of genetic diversity among Indian population of *Cuscuta reflexa* based on ITS sequences of nuclear ribosomal DNA. Journal of Medicinal Plant Research 5(7): 1217-1223.  
([www.academicjournals.org/jmpr/pdf/pdf2011/.../Ali%20et%20al.pdf](http://www.academicjournals.org/jmpr/pdf/pdf2011/.../Ali%20et%20al.pdf), ISI Thomson Reuters Impact Factor: 0.8).
- Al-Qurainy, F., F.M.A. Al-Hemaid, S. Khan, M.A. Ali, M. Tarroum and M. Ashraf (2011) Detection of sodium azide induced mutagenicity in the regenerated shoots of *Artimisia annua* (L) using internal transcribed spacer (ITS) sequences of nrDNA. Pakistan Journal of Botany 43(4):2183-2186. ([www.pakbs.org/pjbot/PDFs/43\(4\)/PJB43\(4\)2183.pdf](http://www.pakbs.org/pjbot/PDFs/43(4)/PJB43(4)2183.pdf)) ISI Thomson Reuters Impact factor: 0.872.
- Al-Qurainy, F., S. Khan, M.A. Ali, F.M.A. Al-Hemaid, M. Tarroum and M. Ashraf (2011) Authentication of *Ruta graveolens* and its adulterant using internal transcribed spacer sequences of nuclear ribosomal DNA. Pakistan Journal of Botany 43(4):1613-1620.  
([www.pakbs.org/pjbot/PDFs/43\(3\)/PJB43\(3\)1613.pdf](http://www.pakbs.org/pjbot/PDFs/43(3)/PJB43(3)1613.pdf) ISI Thomson Reuters Impact factor: 0.872