# **Curriculum Vitae**





## NAME & SURNAME: Karim Sorkheh

## DATE OF BIRTH: 1976

- **ADDRESS, SUBURB, STATE, POSTAL CODE:** Department of Production Engineering and Plant Genetics, Faculty of Agriculture, Shahid Chamran University of Ahvaz, P. O. Box. 61355/144, Iran
- **PHONE/MOBILE NUMBER:**+98-61-33333050
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## **PROFESSIONAL PROFILE:**

Assistance Professor of Production Engineering and Plant Genetics, Faculty of Agriculture, Shahid Chamran University (SCU) of Ahvaz.

## **EDITOR BOARD OF:**

- Turkish Journal of Agriculture & Forestry
- Journal of Plant Chemistry and Ecophysiology
- Journal of Biochemistry and Molecular research
- International Journal of Plant Biology
- International Journal of Horticultural and Agricultural

## **COMPUTER SKILLS:**

#### General:

- 1. Introduction to principle of Computer, Gostaresh Computer Sciences center (GCSC), June 1996, Ministry of Education, Iran.
- 2. Introduction to initial and progressive DOS, Gostaresh Computer Sciences (GCSC), June 1996.
- 3. Introduction to PE2 editor, Gostaresh Computer Sciences (GCSC), August 1996.
- 4. Introduction to PCTOOLS Software, Gostaresh Computer Sciences (GCSC) September 1996.
- 5. Introduction to Auto Cad Software, Ershad System Computer (ESC) February 2001.
- 6. Full time education of WINDOWS 98 & 2000 Microsoft, Ershad System Computer (ESC),



#### May 2001.

- 7. Introduction to GW-Basic Software, Pajohesh Computer Science (PCS), April 1996.
- 8. Basics, Hardware, Microsoft Windows, Microsoft Office, Internet, Anti Virus Software, Information and Statistic Organization center of Ahwaz, July 2001.

## Professional:

Sigma Plot 2002, SAS 6.12, SAS 8.1, SAS 9.1, AMOVA 1.55, POPGEN 3.2, Arlequin 2.000 and 3.000, NTSYS 2000, Tree COM, WINBOOT 1996, WINDIST 1996, Sequied Software and some molecular software that necessary for analysis of bioinformatics' approaches.

## **EDUCATION BACKGROUND:**

**Ph.D.:** Department of Agronomy and Plant Breeding (2010), Faculty of Agriculture, Shahrekord University, Iran.

## <u>Thesis title</u>:

Genetic diversity of wild species (*Amygdalus* spp) and cultivated genotypes of Almond using AFLP molecular marker and some of morphological characteristics

**M.Sc.:** Department of Agronomy and Plant Breeding (1999-2000), Faculty of Agriculture, Shahrekord University, Iran.

## Dissertation title:

Assessment of agro-morphological, physio-biochemical, and molecular wild species and cultivated genotypes in Iran.

**B.S.:** Department of Agronomy and Plant Breeding (2004-2005), Faculty of Agriculture, Shahid Chamran University of Ahvaz, Iran.

## TEACHING AND TRAINING EXPERINCE:

- 2000 Degree (BS.c) in Agriculture (Field Crop and Plant Breeding), University of 'Shahid Chamran Ahvaz'.
- 2004 Degree (MS.c) in Agriculture (Plant Breeding and Biotechnology), University of 'Shahrekord'.
- 2005 Research Scientist, University of Shahrekord.
- 2005 Research Scientist of Fruit Science, University of Shahrekord.
- 2006 Research Scientist of Fruit Biotechnology Science, University of Shahrekord
- 2006 Lecturer on Genetics and Breeding at University of Agriculture and Natural Resources of Ramón (Molasani).
- 2005 Lecture on Statistical and Probability in Agricultural Sciences, University of Shahrekord.
- 2006 Lecture on Statistical Designs in Agricultural Research, University of Shahrekord.
- 2006 Lecture on Application of Molecular Markers in Plant Breeding, University of Shahrekord.



- 2004 Lecture on Learn use of techniques in Laboratories of Genetics and Biotechnology, University of Shahrekord.
- 2007 Lecture on Plant Biology sciences, University of Ramón (Molasani)
- 2008 Lecture on Plant biotechnology, university of Shahrekord.
- 2010 Lecture on Statistical and Probability in Agricultural Sciences, University of Shahrekord.
- 2013 Lecture on Principal of Genetics, Shahid Chamran University of Ahvaz.
- 2013 Lecture on Plant Cytogenetics, Shahid Chamran University of Ahvaz.
- 2013 Lecture on Field Crop Research, Shahid Chamran University of Ahvaz.
- 2014 Lecture on Biochemistry, Shahid Chamran University of Ahvaz.
- 2014 Lecture on Genetics, Shahid Chamran University of Ahvaz.
- 2014 Lecture on Plant Breeding, Shahid Chamran University of Ahvaz.
- 2015-2021 lecture on Molecular Plant breeding, Plant cytogenetic, Plant genetics and Applied Plant Breeding.

## HONOURS AND AWARDS:

- Honorary fellow for get first rank(18.75 out of 20) in Plant Breeding, Shahr-e-Kord University, Iran (2006).
- Honorary fellow for bets presentation in topic thesis and get first rank (19.9 out of 20) in Plant breeding, Shahrekord, University, Iran (2006).
- Honorary fellow for ranked 4 among 25 graduates students, Shahid Chamran University, Molasani (2000).
- Honorary fellow for first rank of researcher in Shahrekord University, Iran (2007).
- Honorary fellow for first rank of researcher in Shahrekord University, Iran (2008).
- Honorary fellow for first rank of researcher in Shahrekord University, Iran (2009).
- Honorary fellow for first rank of researcher in Shahrekord University, Iran (2011).
- Honorary fellow for first rank of researcher in Shahid Chamran University of Ahvaz, Iran (2015).

## **INTERESTS AND RESEARCH FIELDS:**

- Molecular markers
- Gene cloning and transformation
- Gene silencing
- Gene expression of antioxidant enzymes under abiotic stress
- Find coding and non-coding regions (C1, Phospholipase, C2 and etc.) in pollen tube growth in Prunus species
- Ascorbate-gluthation path way and molecular induction some key antioxidant and various metabolite under abiotic stress
- Basic RNases, SFB, S-haplotype and F-Box genes in Prunus species
- Genome- wide in silico analysis microRNA, SNP for developmental marker
- Genome wide transcriptional family analysis and gene expression under abiotic stress

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- Protein- protein gene network interaction
- Developmental functional marker for assessment of population genetics.
- Bioinformatics' approaches including RNA-Seq, NGS, Meta analysis, Microarray analysis, MicroRNA, Genome assembly and etc.

#### **RESEARCH OPPORTUNITY:**

- 10 research opportunity of PhD students from universities as following of:
- Lourestan University, Iran
- Razie University, Iran
- Isfahan University of Technology

## **RESEARCH ACTIVITIES:**

#### **PUBLICATIONS:**

- 1. Sorkheh, K. (2006) Application of molecular markers techniques in plant breeding, Scientific and Specific monthly in Agriculture, vol 171: 34-34-37.
- Sorkheh, K., Shiran, B., Mohammady-D, SH., Alemi-Saeed, KH. (2007) Transgenic in crop improvement: I. Present status and future prospects, Scientific and Specific monthly in Agriculture, vol. 184:21-28.
- 3. Sorkheh, K., Shiran, B., Mohammady-D, SH., Alemi-Saeed, KH. (2007) Transgenic in crop improvement: II. Present status and future prospects, Scientific and Specific monthly in Agriculture, vol. 184:15-21.
- 4. Sorkheh, K., B. Shiran, T. M. Gradziel, B. K. Epperson, P. Martinez-Gomez, E. Asadi. (2007). Amplified Fragment Length Polymorphism as a tool for molecular characterization of almond germplasm: genetic diversity among cultivated genotypes and related wild species of almond, and its relationships with agronomic traits. Euphytica, 156:327-344.
- Sorkheh, K., B. Shiran, M. J. Aranzana, S. A. Mohammadi, P. Martinez-Gomez. (2007) Application of amplified fragment length polymorphism (AFLPs) analysis to plant breeding and genetics: procedures, applications and prospects. Journal of food, Agriculture & Environment vol. 5(1):197-204.
- Shiran, B. Sorkheh, K., V. Rouhi, T. M. Gradziel, B. K. Epperson, P. Martinez-Gomez. (2007) Molecular characterization of Iranian almond cultivars and related wild species using amplified fragment-length polymorphisms (AFLPs). Zaragoza (Spain), 16-20 September. Acta Horticulture.
- Sorkheh K., Lyudmyla V. Malysheva-Otto, Michelle G. Wirthensohn, SaeedTarkesh-Esfahani, Pedro Martínez-Gómez4(2008) Linkage Disequilibrium, Genetic Association Mapping and Gene Localization in Crop Plants, Genetics and Molecular Biology, 31, 4, 805-814.
- Kiani, S., B. Shiran, V. Rouhi, N. Amirbakhtiar, A. Hafizei, K. Sorkheh (2007) Identification of unknown almond Shahroodi cultivars using RAPD, SSR, selfincompatibility alleles and some important agronomic traits, The 5th National Biotechnology Congress of Iran, 24-26 Nov.(2007).
- 9. Sajadi S.S., B. Shiran, N. Kharazian, S. Hoshmand, K. Sorkheh (2010) Assessment of genetic diversity of Salvia spp. of CharmahalvaBakhtiari and Isfahan provinces using AFLP molecular markers. Agricultural Science. pp. 78-90.



- Sorkheh K., A. Vezvaei, M. G. Wirthensohn and P. Martínez-Gómez (2008) Pollen Ultrastructure Characterization in Californian and Australian Almond Cultivars, Journal of the American Pomilogical Society, 62 (4):173-177.
- Gholami, A., M.S. Najafei, H. Galedarei, M.H. Daneshvar, R. Abdolrahman, K. Sorkheh (2008) Genetic diversity of commercial canola cultivars (*Brassica napus* L.) using RAPD markers. 10th Congress Iranian Genetics, 21-23 May (2008).
- 12. Gholami, A., M.S. Najafei, H. Galedarei, M.H. Daneshvar, R. Abdolrahman, K. Sorkheh (2008) Potential use of RAPD molecular marker and some important agronomic traits to study the genetic diversity among rapeseed (*Brassica napus* L.) cultivars. 10th congress of Agronomy and Plant Breeding, Tehran, Iran.
- Niknejad A., M. A. Kadir, S. B. Kadzimin, N. A. P. Abdullah and K. Sorkheh (2009) Molecular characterization and phylogenetic relationships among and within species of Phalaenopsis (Epidendroideae: Orchidaceae) based on RAPD analysis. African Journal of Biotechnology Vol. 8 (20), pp. 5225-5240.
- Sorkheh K, Shiran B, Rouhi V, Asadi E, Jahanbazi H, Moradi H, Gradziel TM, Martínez-Gómez P (2009) Phenotypic diversity within native Iranian almond species and their breeding potential. Genet Resour Crop Evol, 56: 947-961.
- 15. Sorkheh K., BehrouzShiran, SoghraKiani; NazaninAmirbakhtiar; SadeghMousavi; VahidRouhi; ShahramMohammady-D; Thomas M. Gradziel; Lyudmyla V. Malysheva-Otto, Pedro Martínez-Gómez (2009) Discriminating ability of molecular markers and morphological characterization in the establishment of genetic relationships in cultivated genotypes of almond and related wild species. Journal of Forestry Research 20(3): 183–194.
- Sorkheh K., B. Shiran, M. Khodambashi, H. Moradi, T.M. Gradziel, P. Martínez-Gómez (2010) Correlations between quantitative tree and fruit almond traits and their implications for breeding. Scientia Horticulturae 125, 323–331.
- Mashayekhi Sh., B. Shiran, H. Jahanbazi, S. Houshmand, A. Soltani and K. Sorkheh (2010) Study of Genetic Variation of Quercusbrantii in ChaharmahalvaBakhtiary Province using AFLP Molecular Markers. Journal of Forest and Wood Products, Vol. 63, No. 1, pp.77-90.
- Hafizi A., Shiran B., Maleki B., Imani A., Sorkheh K., Banović B. (2010) Discrimination of self-incompatibility S-RNase alleles in Iranian almond (*Prunus dulcis* Mill.) cultivated genotypes using introns of the S-alleles, allele-specific primers and their implications for breeding. Euphytica (Submitted).
- Momeni H., B. Shiran, M. Kohgard, M. Khodambashi and K. Sorkheh (2010) Development of a simple, rapid and inexpensive method for DNA extraction from Tears of Mary (*Fritillaria impriallis*). 11th congress of Agronomy and Plant Breeding, ShahidBeheshtei University, Tehran, Iran.
- 20. Tavakoli F., Vazan S., Shiran B., Sorkheh K. (2010) Differential response of salt-tolerant and susceptible barley genotypes to salinity stress under different conditions. Journal of Crop Improvement, 24:1–17.
- 21. Sorkheh K., B. Shiran, V. Rouhi, M. Khodambashi and A. Sofo (2010) Regulation of the ascorbate-glutathione cycle in wild almond during drought stress. Russian Journal of Plant Physiology. Vol.58.
- 22. Sorkheh K., B. Shiran, V. Rouhi, M. Khodambshi, J. N. Wolukau, S. Ercisli (2010) The effect of temperature, polyamines and polyamine synthesis inhibitor on in vitro pollen germination and pollen tube growth of almond (*Prunus dulcis* Mil.). Scientia Horticulture



(revised for publication).

- Sorkheh K., B. Shiran, M. Khodambshi, V. Rouhi, S. Ercisli (2010) In vitro assay of native Iranian almond species (*Prunus* spp.) for drought tolerance: comparison between sorbitol and polyethylene glycol 6000 as external osmotic agent. Plant Cell, Tissue & Organ Culture, TICU3966.
- 24. AmiriFahliani R., Khodambashi M., Houshmand S., Arzani A., Sorkheh K. (2011) Assessment of heritability agro-morphological traits and identification of linked microsatellites in rice (*Oryza sativa* L.) population using F2:3 families. Turkish Journal of Agriculture and Forestry, 35 481-490.
- Sorkheh K., Shiran B., Khodambashi M., Rouhi V., Mosavei S., Sofo A. (2011) Exogenous proline affects the antioxidant system of wild almond species (*Prunus* spp.) subjected to oxidative stress. ActaBiologicaCracoviensia – Series Botanica (accepted for publication, 2011).
- Sorkheh K., B. Shiran, M. Khodambshi, V. Rouhi, A. Sofo (2011). Salt stress induction of some key antioxidant enzymes and metabolites in eight Iranian wild almond species. ActaPhysiolo. Plant. DoI 10.1007/s11738-011-08119-4.
- 27. Sorkheh K., B. Shiran, M. Khodambshi, V. Rouhi, J.N. Wolukau, S. Ercisli (2011). Responce of in vitro pollen germination and pollen tube growth of almond (*Prunus dulcis* Mill.) to temperature, polyamines and polyamine synthesis inhibitor. Biochemical Systematics and Ecology, (2011),1-9. doi: 10/1016/j.bse.2011.06.15.
- Sorkheh K., B. Shiran, V. Rouhi, M. Khodambshi (2011) Influence of temperature on the in vitro pollen germination and pollen tube growth of various native Iranian almonds (*Prunus* L. Spp.) species. Trees, DOI 10.1007/s00468-011-0557-7.
- Badfar Chaleshtori I S., B. Shiran, M. Khodambashi, K. Sorkheh (2011) Assessing genetic diversity of Imperial Crown (*Fritillaria imperialis* L) population of Zagros region in Iran by AFLP marker. 7th National Biotechnology The Congress of I.R. IRAN. 12-14 September 2011.
- 30. EhsanSangi S., M. Khodambashi, B. Shiran, K. Sorkheh (2011) Assessment of protein electrophoresis pattern in lentil (*Lens culinaris* Medik) at reproductive stage of growth induced by drought stress. 7th National Biotechnology The Congress of I.R. IRAN. 12-14 September 2011.
- 31. EhsanSangi S., M. Khodambashi, B. Shiran, K. Sorkheh (2011) Genetic Variation within and among cultivars of lentil (*Lens culinaris* Medik) using electrophoresis pattern of leaf proteins. 7th National Biotechnology The Congress of I.R. IRAN. 12-14 September 2011.
- Hafizi A., B. Shiran, K. Sorkheh (2011) Molecular identification of an inactive S-RNase allele in 'Mamaei' almond cultivar. 7th National Biotechnology The Congress of I.R. IRAN. 12-14 September 2011.
- 33. Yaghini H, Shirani M., Archangi A., Sorkheh K., Badfar Chaleshtori S., Sangi S.E., Khodambashi M., Tavakoli F. (2013) Phenotypic diversity and relationships of fruit quality traits in inter-specific almond × peach backcrosses breeding progenies. Euphytica, 1-20.
- 34. BadfarChaleshtori S., B. Shiran, M. Kohgard, H. Mommeni, A. Hafizi, M. Khodambashi, N. Mirakhorli, K. Sorkheh (2012) Assessment of genetic diversity and structure of Imperial Crown (*Fritillaria imperialis* L.) populations in the Zagros region of Iran using AFLP, ISSR and RAPD markers and implications for its conservation. Biochemical Systematic and Ecology, 42:35-48.
- 35. Yaghini H, Shirani M., Archangi A., Sorkheh K., BadfarChaleshtori S., Sangi S.E., Khodambashi M., Tavakoli F. (2013) Phenotypic diversity and relationships of fruit quality



traits in inter-specific almond  $\times$  peach backcrosses breeding progenies. Euphytica, 1-20.

- 36. RajabpoorSh, Kiani S., Sorkheh K., Tavakoli F (2014) Morpho-biochemical, physiological, anatomical and stomatal parameter changes of in vitro selected almond (*Prunus* L. spp.) species induced by osmotic stress. Journal of Forestry Research, accepted for publication, Springer.
- 37. Kiani S., RajabpoorSh ,Sorkheh S., Ercisli S. (2014) Chemical composition and divergence studies in important seed and oil parameters of various wild almond (*Prunus* L. spp.) populations native to Iran: implications for human nutrition and health. Journal of Forestry Research, accepted for publication, Springer.
- Sofo A., Rajabpoor Sh., Yaghini H., Shirani M., Archangi A., Sangi S.E., Tavakoli F., Khodaei M. Sorkheh K. (2014) Cold-induced changes in antioxidant defenses and reactive oxygenespecies in eight wild almond species. Free. Rad. Antiox. 4(1) 70-74.
- 39. Rajabpoor Sh., Kiani S., Sorkheh K., Tavakoli F. (2014) Changes induced by osmotic stress in the morphology, biochemistry, physiology, anatomy and stomatal parameters of almond species (*Prunus* L. Spp.) grown in vitro. J.For. Rese. 25: 523-534.
- Soughra kiani, Shakiba Rajabpoor, Karim Sourkheh, S. Ercisli (2015) Evaluation of seed quality and oil parameters in native Iranian almond (Prunus L. Spp.) apecies. J. For. Res. 26: 115-122., Publisher SPRINGER JAPAN KK, 05-08-2015
- 41. Iranjoo P., Nabati-Ahmadi D., Sorkheh K., RajabiMemari H. (2014) Genetic diversity of wild population of Pistacia (PistaciaatlanticaDesf.) using RAPD molecular markers. 1th international and 13th Iranian Crop Science and 3rd Iranian seed science and Technology conference. 1-4.
- 42. Hassani H., NabatiAhmadi D., Pezeshkpour P., Sorkheh K., Rajabimemary H. (2014) Phenotypic correlation, yield and some yield components and their implications for its breeding potential. 1th international and 13th Iranian Crop Science and 3rd Iranian seed science and Technology conference. 1-4.
- 43. Hassani H., NabatiAhmadi D., Pezeshkpour P., Sorkheh K., Rajabimemary H. (2014) The use of phenotypic correlations and factor analysis in determining characters for grain yield selection in chickpea (Cicerarietinum L.). 1th international and 13th Iranian Crop Science and 3rd Iranian seed science and Technology conference. 1-4.
- 44. Iranjoo P., Nabati-Ahmadi D., Sorkheh K., RajabeiMemari H. Ercisli S. (2015) Genetic diversity and phylogenetic relationships between and within wild Pistacia species populations and implications for its conservation. J.For.Res. online published.
- 45. Iranjoo P., Nabati-Ahmadi D., Sorkheh K., RajabiMemari H. (2015) Molecular characterization and inter-specific assessment of wild population of Pistacia using RAPD molecular markers. Proceeding advanced in Agriculture. 1-4.
- 46. Amirbakhtiar N., Sorkheh K. (2015) Analysis of diversity and relationships among wild Pistacia species using Start Codon Targeted (SCoT) markers. 1st international and 9th national Biotechnology Congress of Islamic Republic of Iran. May 24-26 2015, Shahid Behshti University, Tehran, Iran.
- 47. Amirbakhtiar N., Sorkheh K. (2015) DNA fingerprinting of wild Pistacia L. species germplasm in Iran using interretrotransposon amplified polymorphism (IRAP) marker. 1st international and 9th national Biotechnology Congress of Islamic Republic of Iran. May 24-26 2015, Shahid Behshti University, Tehran, Iran.
- 48. Bakhtiari S., NabatiAhmadi D., Sorkheh K., HosseniChaleshtori M. (2015) In-Silico identification of LTR type retrotransposons in Oryza sativa L. 1st international and 9th national Biotechnology Congress of Islamic Republic of Iran. May 24-26 2015,



ShahidBehshti University, Tehran, Iran.

- 49. Bakhtiari S., NabatiAhmadi D., Sorkheh K., HosseniChaleshtori M. (2015) Identification of transcription activity of transposable elements in different tissues in rice (*Oryza Sativa* L.). Proceeding advanced in Agriculture. 1-4.
- 50. Sorkheh K, Masaeli M., HosseiniChaleshtori M., Adugna A., Ercisli S.(2016) AFLP-Based Analysis of Genetic Diversity, Population Structure, and Relationships with Agronomic Traits in Rice Germplasm from North Region of Iran and World Core Germplasm Set. Biochem Genet 54: 177-193.
- 51. Sorkheh K., SoghraKiani, Adriano Sofo (2016) Wild almond (*Prunus scoparia* L.) as potantial oilseed resource for the future: Studies on the variability of its oil content and composition. Food Chemistry, 212: 58-64.
- 52. Sorkheh K. Khaleghi E. (2016) Molecular characterization of genetic variability and structure of olive (*Olea europaea* L.) germplasm collection analyzed by agromorphological traits and microsatelite markers. Turk. J. Agri. For. 40:583-596.
- 53. Sorkheh K, Angela S. Prudencio, Azim Ghebinejad, Mehrana Kohei Dehkordi, Deniz Erogul, Manuel Rubio and Pedro Martinez-Gomez (2016) Insilico search, characterization and validation of new EST-SSR markers in the genus Prunus. BMC Res Notes (2016) 9:336 DOI 10.1186/s13104-016-2143-y.
- 54. Setareh Mirzavand, Karim Sorkheh, Mohammad Reza Siahpoosh (2016) Genetic diversity and population structure analysis of *Pistacia* species illustrated by Phenylalanine Ammonia-Lyase gene and implication for conservation. J. For. Res. 29, pages 991–1001
- 55. Sahar Rouhian, Daryoush Nabati Ahmadi, Karim Sorkheh (2016) Development of Dof (DNA binding with One Finger) transcription factor gene-specific primers through data mining as a functional marker and their use for genetic diversity study in barley (*Hordeum vulgare* L.) germplasm. Genes & Genomics. 39, pages 567–579
- 56. Karim Sourkheh, Esmaeil Khaleghi (2016) Molecular characterization of genetic variability and structure of olive (*Olea europaea* L.) germplasm collection analyzed by agromorphological traits and microsatellite markers, Journal Turkish Journal of Agriculture and Forestry, JCR, JournalNumber 40, Page 583 596, Publisher sada, 06-14-2016.
- 57. Tavakoli F., Vazan S., Sorkheh K., Shakeri E. (2016) Effect of salinity stress on some physiological traits and electrophoresis pattern of leaf proteins of two barley genotypes. Journal of Crop Production And Processing SPRING 2016, Volume 6, Number 19; Page(s) 191- 202.
- 58. Karim Sourkheh, soughra kiani, Roghayeh Azimkhani, Nastaran Mehri, Júlia Halász (2017) Nut set evaluation in inter-specific almond × peach backcross progenies for selfcompatibility selection in almond breeding programme, Journal Euphytica, JCR, Journal Number 213, Page 191 - 204, Publisher Springer, 08-20-2017.
- 59. Mustafa AKBULUT, Mehmet Ramazan BOZHUYUK, Sezai Ercisli, Azra SKENDER, Karim Sourkheh (2017) Chemical Composition of Seed Propagated Chestnut Genotypes from Northeastern Turkey, Journal Notulae Botanicae Horti Agrobotanici Cluj-Napoca, JCR, Journal Number 2, Page 425 - 430, Publisher UNIV AGR SCI & VETERINARY MED CLUJ-NAPOCA, 06-15-2017.
- 60. Esmaeil Khaleghi, Karim Sourkheh, Maryam Hoseni Chaleshtory, Sezai Ercisli (2017) Elucidate genetic diversity and population structure of *Olea europaea* L. germplasm in Iran using AFLP and IRAP molecular markers, Journal 3BIOTECH, JCR, Journal Number 1, Page 0 - 0, Publisher Springer, 04-27-2017.
- 61. SpmayehNajafi, Karim Sourkheh, ,Fatemeh Nasernakhaei (2018) Characterization of the



APETALA2/ Ethylene-responsive factor (AP2/ ERF) transcription factor family in sunflower, Journal Scientific Reports, JCR, Journal Number 11576, Page 1 - 16, Publisher NATURE PUBLISHING GROUP, 07-01-2018.

- AzamRafiezadeh, MehranaKoohi, Dehkordi, KarimSourkheh (2018) Molecular insights of genetic variation in milk thistle (*Silybum marianum* [L.] Gaertn.) populations collected from southwest Iran , Journal Molecular Biology Reports, Journal Number 4 , Page 601 -609 , Publisher Springer , 05-24-2018.
- 63. KarimSourkheh, Ahmad Kazemifard, Shakiba Rajabpoor (2018) A comparative study of fuzzy linear regression and multiple linear regression in agricultural studies: a case study of lentil yield management, Journal Turkish Journal of Agriculture and Forestry, JCR, Journal Number 6, Page 402 411, Publisher sada, 05-07-2018.
- 64. Mahbobeh Pirhadi, Naeemeh Enayatizamir, Hossein Motamedi, Karim Sourkheh (2018) Impact of soil salinity on diversity and community of sugarcane endophytic plant growth promoting bacteria (*saccharum officinarum* 1. Var. Cp48), Journal Applied Ecology And Environmental Research , JCR , Journal Number 1 , Page 725 - 729 , Publisher hungray , 03-01-2018.
- 65. Bakhtiari S., D. NabatiAhmadi, K. Sorkheh, M. HosseniChaleshtari (2018) Molecular Characterization of Recombinant Inbred Line Population of Rice With Retrotransposon (Ipbs) Marker Retrotransposon iPBS. The Plant Production (Scientific Journal of Agriculture), 40 1 (4), Winter, 2018.
- 66. Karim Sourkheh, Roghayeh Azimkhani, Nastaran Mehri, Maryam Hoseni Chaleshtory, Júlia Halász, Sezai Ercisli, Georgios C. Koubouris (2018) Interactive effects of temperature and genotype on almond (Prunus dulcis L.) pollen germination and tube length. Journal Scientia Horticulturae, Journal Number 227, Page 162 - 168, Publisher Elesvier, 12-03-2018
- 67. KhakpourAtefeh, Zolfaghari Maryam, Sorkheh Karim (2019) Bioinformatics Study and Investigation of the Expression Pattern of Several Important Genes Involved in Glycyrrhizin Synthesis of *Glycyrrhiza glabra* L. in Autumn and Spring Seasons. Journal of Plant Genetic Research 2019, Volume 6, Number 1; Page(s) 55 - 68.
- 68. Shavalikohshori O, R. Zalaghi1, K. Sorkheh, and N. Enayatizamir (2020) Inoculation of wheat with pseudomonas: impact on wheat growth and some biological properties of a soil under Cd and salinity stresses. Journal of Soil Biology 2020, Volume 8, Number 2; Page(s) 209 - 222.
- 69. Maryam Shirani-Bidabadi, FarhadNazarian-Firouzabadi, KarimSorkheh, AhmadIsmaili (2020) Gene set enrichment analysis in potato tubers (*Solanum tuberosum* L.) during developmental stages. Crop Biotech. 9(3): 39-51 DOI: 10.30473/CB.2020.52492.1804.
- KhakpourA., M. Zolfaghari and K. Sorkheh (2020) A study on some secondary metabolites of *Glycyrrhiza glabra* L. in autumn and spring conditions in Khuzestan province. Iranian Journal of Medicinal and Aromatic Plants, Vol. 35, No. 6, 2020.
- 71. Kouhi F, Sorkheh K, Ercisli S (2020). Identification of conserved miRNAs and their putative target genes in safflower (*Carthamus tinctorius* L). Modern Genetics Journal. 2020; 13 (3):363-379.
- 72. Hamid Alvanipour, Heshmatolah Aminian, khalil alami saeid, Karim Sourkheh, Reza Farrokhi\_Nejad, Ahmad Ali Nejati, Mohamad Javan-Nikkhah (2020) Cross-transferability of SSR loci of *Phaeosphaeria nodorum* to *Mauginiella scaettae*. Journal Mycologia Iranica, Journal Number 1, Page 135 142.
- 73. Safari M., S. Mousavi-Fard, A. Rezaei Nejad, K. Sorkheh, A. Sofo (2021) Exogenous



salicylic acid positively affects morpho-physiological and molecular responses of Impatiens walleriana plants grown under drought stress. International Journal of Environmental Science and Technology <u>https://doi.org/10.1007/s13762-020-03092-2</u>

74. Pourfarid B, Sorkheh K, Martinez-Gomez P. Identification of ABC-Transporter gene family and analysis of gene co-expression network pattern in different stages of potato stolone development in response to drought and salinity stress. Genetic Engineering and Biosafety Journal. 2021; 10 (1) :21-30 URL: http://gebsj.ir/article-1-371-fa.html

## **BOOKS:**

- 1. DNA sequencing: The Basics, By T.A. Brown, Shahrekord University of Iran (2007).
- 2. Molecular Markers in Plant Genetics and Biotechnology, by Dominique de Vienne, Institute National de la Recherche Agronomique Versalilles, France. SinaTeb, Tehran publisher.(2013).
- From Genes to Genoms: concepts and application of DNA technology, By Jeremy W. Dale, Malcolm Von Schantz, Nick Plant, Shahid Chamran university of Ahvaz, Iran (2014). SinaTeb,Tehran publisher.
- 4. Gene cloning and DNA analysis: An introduction, 6th By T. A. Brown, Shahid Chamran University of Ahvaz (2015), Iran. Rodgon & SinaTeb, Tehran publisher.
- 5. Biotechnology and Plant Breeding: Application and Approaches for Developing Improved Cultivars, By AluizioBorem &Robertho Fritsche-Neto, Shahid Chamran University of Ahvaz (2016), Khosravei Press, Tehran, Iran.
- 6. Gene Cloning & DNA Analysis: An Introduction, 7th By T. A. Brown, Shahid Charam University of Ahvaz (2016), Shaid Chamran University of Ahvaz Press, Ahvaz, Iran.
- 7. Plant Cytogenetic, By Ram J. Singh, Shahid Chamran University of Ahvaz (2016), Shahid Chamran University Press, Tehran, Iran.
- 8. Statistical and Procedures of Multivariate Analysis, Published by Tehran publishers 'Daneshparvar' (2010).
- 9. Abiotic Stress Adaptation in Plants: breeding, Physiological, Molecular and genomic Aspects. Volume: I Drought and Salinity, SinaTeb, Tehran Publishers (2014).
- 10. Abiotic Stress Adaptation in Plants: breeding, Physiological, Molecular and genomic Aspects. Volume: II Chilling and heat, SinaTeb, Tehran Publishers (2014).
- 11. Rice quality: Aspects of qualitative, Molecular and Genomics, SinaTeb, Tehran Publishers (2014).
- 12. Basic Laboratory Methods of Genetics, Cytogenetic and Molecular Genetics, SinaTeb, Tehran Publishers (2014).
- Plants for the future, Edited by Hany El-Shemy, Chapter book entitled: Evolutionary Analysis of Basic RNase Genes from Rosaceous Species - S-RNase and Non-SRNase Genes, 2015. INTECH Publisher (2015).
- 14. Gene Targeting and Site-Specific Recombination Systems for Genome Engineering in Plants, Edited by KarimSorkheh, Monograph series, 2016. Avide Science.
- 15. Molecular Biotechnology: Application of DNA recombinant, Shahid Chamran University of Ahvaz, Volume 1 (2021) Shahid Chamran University press.
- 16. Molecular Biotechnology: Application of DNA recombinant, Shahid Chamran University of Ahvaz, Volume 2 (2021) Shahid Chamran University press.

## **RESEARCH PROJECTS:**

1. The study of different of levels of nitrogen on three barley cultivars, 'Karoon', '13-



Sarasari', and 'Jonob' in Ahwaz.

- 2. The study of genetic diversity in wild species and cultivated genotypes of Almond using AFLP molecular marker and some of morphological characteristics.
- 3. Assessment of phenotypic diversity and morphological characterization of Amygdalus L. species in Iran.
- 4. Phenotypical correlation and relationships important agronomic traits in cultivated genotypes and wild species (Prunus spp.) of almond.
- 5. Linkage Disequilibrium: Structure, Scales, Applications and association studies in Plants.
- 6. Pollen ultrastructre characterization of ten Australian and Californian almond.
- 7. Random Amplified Polymorphic DNA (RAPD) in Assessment of Genetic Diversity of Phalaenopsis (Epidendroideae: Orchidaceae) Species.
- 8. Inheritance, genetic advance and agronomic effects on qualitative traits in recombinant inbred lines (RILs) of durum wheat (*Triticum durum* L.).
- 9. Influence of G×E and other related important components on the productive behavior of almond.
- 10. Some physical and pomological properties of almond (Prunus dulcis L.) cultivars.
- 11. Detection of Prunus necrotic ring spot virus (PNRSV) and prune dwarf virus (PDV) in Iranian almond (Prunus dulcis) using ELISA and RT-PCR.
- 12. Salt stress induction of antioxidant and some important metabolite in wild almond species under abiotic stress.
- 13. Response of pollen germination and pollen tube growth of almond species to temperature, Put, Spd, Spm and MGBG.
- 14. In vitro assessment of wild almond species to drought tolerance.
- 15. Morpho-biochemical, physiological, anatomical and stomatal parameter changes of in vitro selected almond (Prunus L. spp.) species induced by osmotic stress.
- 16. Chemical composition in important seed and oil parameters of various wild almond (Prunus L. spp.) populations native to Iran: implications for human nutrition and health.
- 17. In silico search, characterization and validation of new EST-SSR markers in Prunus, International Experimental Research Project (I.E.R.P.) collaborated with Murica (CEBAS) Spain, Spanish Ministry of Economy and Competiveness and ShahidChamran University of Ahvaz, Iran (2016).
- 18. Association mapping of quantitative and qualitative traits, Genetic Diversity, Population Structure, and Relationships with Agronomic traits in Rice Germplasm from North Regin of Iran and World Core Germplasm Set, International Experimental Research Project (I.E.R.P.) collaborated with Melkassa Agriculture Research Center, Adama, and Shahid Chamran University of Ahvaz, Iran (2016).
- Abiotic Stress adaptation in Prunus L. spp.: Drought, Salinity, Cold Hardness: Physiology, Biochemical, Breeding, Molecular and Genomic Founction. International Experimental Research Project (I.E.R.P.) collaborated with Basilicata University, Italy and Shahid Chamran University of Ahvaz, Iran (2015).
- 20. Identification of Prunus and Pistacia species germplasm: Drought, Salinity, Cold hardness. International Experimental Research Project (I.E.R.P.) collaborated with Ataturk University, Turkey and Shahid Chamran University of Ahvaz, Iran (2016).
- 21. DNA fingerprinting of some olive genotypes using SSR molecular markers and morphological traits, Shahid Chamran University of Ahvaz.
- 22. Retrotransposon polymorphism identification of wild species of almond using IRAP and REAMP markers, Shahid Chamran University of Ahvaz & Payame Noor university of



Tehran.

- 23. Application of fuzzy regression in Agricultural research, Shahid Chamran University of Ahvaz.
- 24. Microsatellite mining from cDNA transcripts using bioinformatics approaches for authenticity of *Glycyrrhiza glabra* south of Iran, Shahid Chamran University of Ahvaz.
- 25. Screening of bacterial Rhizosphere that's impact on gene expression of proline under Cd and salinity stresses, Shahid Chamran University of Ahvaz.

## **PATENTS & INVENTION:**

- 1. *Mauginiella scaettae* isolate Mehr-sa small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, Date of Registration , 1400/02/20.
- Mauginiella scaettae isolate Ilam-sa small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, Date of Registration, 1400/02/20.
- 3. *Mauginiella scaettae* isolate Kuwa-ma1 small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1 and 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence, Date of Registration , 1400/02/20.
- 4. *Mauginiella scaettae* isolate behb-ma1 small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, Date of Registration , 1400/02/20.
- 5. *Mauginiella scaettae* isolate Karb-za small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1 and 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence, Date of Registration , 1400/02/20.
- 6. *Mauginiella scaettae* isolate Haji-ma1 small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1 and 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence, Date of Registration , 1400/02/20.
- 7. *Mauginiella scaettae* isolate Shab-ka4 small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, Date of Registration, 1400/02/20.
- 8. *Mauginiella scaettae* isolate abad-sa1 small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, Date of Registration , 1400/02/20.
- 9. *Mauginiella scaettae* isolate Gena-ma small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, Date of Registration , 1400/02/20.
- 10. *Mauginiella scaettae* strain hove-gh small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1 and 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence, Date of Registration , 1400/02/20.
- 11. *Mauginiella scaettae* strain ahva-ma1 small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1 and 5.8S ribosomal RNA gene, complete sequence; and



internal transcribed spacer 2, partial sequence, Date of Registration, 1400/02/20.

- 12. *Suaedaa egyptiaca* isolate 33 psbA-trnHintergenic spacer region, partial sequence; chloroplast, Date of Registration, 1399/03/17.
- 13. *Suaedaa egyptiaca* isolate 8 psbA-trnHintergenic spacer region, partial sequence; chloroplast, Date of Registration , 1399/03/17.
- 14. *Suaedaa egyptiaca* isolate 37 psbA-trnHintergenic spacer region, partial sequence; chloroplas, Date of Registration, 1399/03/17.
- 15. *Suaedaa egyptiaca* isolate 42 psbA-trnHintergenic spacer region, partial sequence; chloroplast, Date of Registration, 1399/03/17.
- 16. Caroxylon imbricatum voucher 15 S. imbri small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, Date of Registration , 1398/07/05.
- 17. *Suaeda vermiculata* voucher 79 S. vermi internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence, Date of Registration , 1398/07/05.
- Suaeda vermiculata voucher 17 S. vermi internal transcribed spacer 1, partial sequence;
  5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence, Date of Registration, 1398/07/05.
- 19. *Caroxylon imbricatum* voucher 39 S. imbri internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, , , Date of Registration , 1398/07/05.
- 20. *Caroxylon imbricatum* isolate 6 psbA-trnHintergenic spacer region, partial sequence; chloroplast, Date of Registration , 1398/06/25.
- Caroxylon imbricatum voucher 15 S. imbri small subunit ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene, and internal transcribed spacer 2, complete sequence; and large subunit ribosomal RNA gene, partial sequence, Date of Registration, 1398/06/25.
- 22. *Caroxylon incanescens* isolate 18 psbA-trnH intergenic spacer region, partial sequence; chloroplast, Date of Registration , 1398/06/25.
- 23. *Suaedaa egyptiaca* isolate 25 psbA-trnH intergenic spacer region, partial sequence; chloroplast, Date of Registration, 1398/06/25.
- 24. *Suaeda vermiculata* isolate 17 psbA-trnH intergenic spacer region, partial sequence; chloroplast, Date of Registration , 1398/06/25.
- 25. *Caroxylon incanescens* isolate 49 psbA-trnH intergenic spacer region, partial sequence; chloroplast, Date of Registration , 1398/06/25.
- 26. *Caroxylon imbricatum* isolate 10 psbA-trnH intergenic spacer region, partial sequence; chloroplast, Date of Registration , 1398/06/25.
- 27. *Suaedaa egyptiaca* isolate 70 psbA-trnH intergenic spacer region, partial sequence; chloroplast, Date of Registration, 1398/06/25.
- 28. *Caroxylon imbricatum* isolate 26 psbA-trnH intergenic spacer region, partial sequence; chloroplast , Date of Registration , 1398/06/25.
- 29. *Caroxylon imbricatum* isolate 39 psbA-trnH intergenic spacer region, partial sequence; chloroplast, Date of Registration , 1398/06/25.
- 30. *Caroxylon imbricatum* isolate 62 psbA-trnH intergenic spacer region, partial sequence; chloroplast, Date of Registration , 1398/06/25.



## **TOPICS OF THESIS:**

- 1. Genetic diversity of wild species (Amygdalus spp) and cultivated genotypes of Almond using AFLP molecular marker and some of morphological characteristics. A thesis submitted in partial fulfillment of the requirement for degree of Master of Science by Karim Sorkheh. Evaluated and approved by thesis committee. On 1 March 2006.
- 2. Assessment of agro-morphological, physio-biochemical, and molecular wild species and cultivated genotypes in Iran. Supervisor: A thesis submitted in partial fulfillment of the requirement for degree of PhD. by Karim Sorkheh.

## CONTRIBUTION IN INTERNATIONAL SYMPOSIUMS:

- 1. IV International Symposium on Pistachios and Almonds, Tehran (IRAN), 22-25 May (2005).
- 2. The fourth International Iran and Russia Conference, Agriculture and Natural Resources, Proceeding, Shahrekord (IRAN), September 8-10 (2004).
- 3. 5th the National Biotechnology Congress of Iran 24-26 Nov. (2007).
- 4. 10th National congress Genetics, Tehran (IRAN), 2008.
- 5. 10th National congress of Agronomy and Plant Breeding, Tehran-Karaj (IRAN). (2008).
- 6. 11th National congress of Agronomy and Plant Breeding, Shahid Beheshti University, Tehran (IRAN). (2010).
- 7. 13th National congress of Agronomy and Plant Breeding, Shahid Beheshti University, Tehran (IRAN). (2014).
- 8. 1st international and 9th national Biotechnology Congress of Islamic Republic of Iran. May 24-26 2015, ShahidBehshti University, Tehran, Iran.

#### **REVIEWER OF JOURNALS:**

As a potential referee of three journals: African Journal of Biotechnology, African Journal of Agricultural Research, Journal of Plant Breeding and Crop Research, Biochemical and Systematic& Ecology, Turkish Journal of Forestry and Agricultural Research, International Journal of Plant Biology, Journal of Biochemistry and Molecular research, BMC Genetics, BMC Plant Biology, Scientific Reports, Forentier in Plant Science.

## **PROFESSIONAL MEMBERSHIPS:**

Member of the International Society for Agricultural Science (since, 2003)

## LANGUAGES:

PERSIAN: Native

**ENGLISH:** Intermediate

**ARABIC:** Native