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Graduate Student Advisor

2000-2005, Tarbiat Modares University

15 Master and 3 Ph. D. students

Lecturer, Tarbiat Modares University

Biotechnology

Design of enzyme inhibitor and Drug design

Enzymology

Enzyme technology

Biochemistry of Chromatin

Enzyme kinetics

Mechanisms of enzymes

Advanced topics in Biochemistry

Protein Biochemistry

Projects:

- 1) Use of antibodies for stabilization of α -amylase
- 2) Isolation, purification and cloning of laccase, protease and glucose isomerase from microorganisms of hot spring
- 3) Purification of FMN-NADH oxidoreductase from a new bacterial sp.
- 4) Biosensor for phenolic compounds
- 5) Identification and determination of pollutants in the soil
- 6) Bioremediation of the soil pollutants

Gene discoveries

- 1) *Geobacillus* sp. LH8 16S ribosomal RNA gene, partial sequence
[gi|76009545|gb|DQ192572.1|\[76009545\]](https://www.ncbi.nlm.nih.gov/nuclseq/gi|76009545|gb|DQ192572.1|[76009545])

- 2) *Bacillus* sp. HR-08 16S ribosomal RNA gene, partial sequence
gi|68349534|gb|DQ092500.1|[68349534]

- 3) *Bacillus* sp. KR-8104 alpha-amylase precursor, gene, partial cds
gi|56788275|gb|AY841124.1|[56788275]

- 4) *Bacillus* sp. HR03 16S ribosomal RNA gene, partial sequence
gi|82754704|gb|DQ285295.1|[82754704]

- 5) *Geobacillus* sp. LH8 thermostable DNA polymerase I (polI) gene, complete cds
gi|88697142|gb|DQ392964.1|[88697142]

- 6) *Geobacillus* sp. MKK-2005 16S ribosomal RNA gene, partial sequence
gi|83595305|gb|DQ309334.1|[83595305]

- 7) *Bacillus* sp. STG-83 16S ribosomal RNA gene, partial sequence
gi|117574658|gb|EF051255.1|[117574658]

- 8) *Geobacillus* sp. L14 16S ribosomal RNA gene, partial sequence
gi|116490060|gb|EF015470.1|[116490060]

- 9) *Klebsiella pneumoniae* strain TM100 16S ribosomal RNA gene, partial seq.
gi|115529734|gb|DQ852624.1|[115529734]

- 10) *Bacillus* sp. WHO 16S ribosomal RNA gene, partial sequence
gi|115521851|gb|DQ973298.1|[115521851]

- 11) *Thermus* sp. GH5 16S ribosomal RNA gene, partial sequence

gi|115521850|gb|DQ973297.1|[115521850]

Protein discovery

- 1) Alpha-amylase precursor [Bacillus sp. KR-8104]
gi|56788276|gb|AAW29920.1|[56788276]
- 2) Bacillus sp. hr08 serine protease gene, partial cds
gi|87241717|gb|DQ379515.1|[87241717]
- 3) thermostable DNA polymerase I [Geobacillus sp. LH8]
gi|88697143|gb|ABD48716.1|[88697143]

- 4) Crystal structure of native alpha-amylase from Bacillus sp. KR-8104

PDBID: 3dc0

- 5) High resolution crystal structure of Bacillus amyloliquefaciens alpha-amylase

PDBID: 3bh4

Awards and Honours:

Razi Student Award, 1374

Tehran University Award, 1380

Razi Medical Award, 1387

Publications

Books:

- 1) Biology, First edition (publisher: Manshor Danesh)
- 2) Biology, Second edition (publisher: Manshor Danesh)

- 3) Translation and final advisor of "Stryer Biochemistry" (publisher: Biology House)
- 4) Translation and final advisor of "Campbell Biology" (publisher: Biology House)
- 5) Industrial Enzymology (publisher: University of Tehran)
- 6) Isolation and purification of proteins, in preparation
- 7) Translation and final advisor of "Molecular Biology of the Gene, Watson

Abstracts:

About 200 abstracts in national and international congresses

Recent Publications:

- 1) Sadeghi, L., Khajeh, K., Mollania, N., Dabirmanesh, B., Ranjbar, B. Extra EF Hand Unit (DX) Mediated Stabilization and Calcium Independency of α -Amylase. *Mol Biotechnol* 1-8 , Article in Press.
- 2) Dabirmanesh, B., Khajeh, K., Ranjbar, B., Ghazi, F., Heydari, A. Inhibition mediated stabilization effect of imidazolium based ionic liquids on alcohol dehydrogenase. *J Mol Liq*, Article in Press
- 3) Gill, P., Ranjbar, B., Saber, R., Khajeh, K., Mohammadian, M. Biomolecular and structural analyses of cauliflower-like DNAs by ultraviolet, circular dichroism, and fluorescence spectroscopies in comparison with natural DNA. *J Biomol Tech* 22 (2012) 60-66
- 4) Rahimzadeh, M., Khajeh, K., Mirshahi, M., Khayatian, M., Schwarzenbacher, R. Probing the role of asparagine mutation in thermostability of Bacillus KR-8104 α -amylase. *Int J Biol Macromol* 50 (2012) 1175-1182
- 5) Haghani, K., Khajeh, K., Naderi-Manesh, H., Ranjbar, B. Evidence regarding the hypothesis that the histidine-histidine contact pairs may affect protein stability. *Int J Biol Macromol* 50 (2012) 1040-1047
- 6) Derakhti, S., Shojaosadati, S.A., Hashemi, M., Khajeh, K. Process parameters study of α -amylase production in a

packed-bed bioreactor under solid-state fermentation with possibility of temperature monitoring. *Prep Biochem Biotechnol* 42 (2012) 203-216.

7) Ashtari, K., Khajeh, K., Fasihi, J., Ashtari, P., Ramazani, A., Vafaei, H. Silica-encapsulated magnetic nanoparticles: Enzyme immobilization and cytotoxic study. *Int J Biol Macromol* 50 (2012) 1063-1069

8) Hashemi, M., Shojaosadati, S.A., Razavi, S.H., Mousavi, S.M., Khajeh, K., Safari, M. The Efficiency of Temperature-Shift Strategy to Improve the Production of α -Amylase by *Bacillus* sp. in a Solid-State Fermentation System. *Food Bioprocess Tech* 5 (2012) 1093-1099.

9) Ghiasi, P., Hosseinkhani, S., Noori, A., Nafissi, S., Khajeh, K. Mitochondrial complex I deficiency and ATP/ADP ratio in lymphocytes of amyotrophic lateral sclerosis patients. *Neurol Res* 34 (2012) 297-303.

10) Nazari-Robati, M., Khajeh, K., Aminian, M., Fathi-Roudsari, M., Golestani, A. Co-solvent mediated thermal stabilization of chondroitinase ABC I form *Proteus vulgaris*. *Int J Biol Macromol* 50 (2012) 487-492.

11) Amini-Bayat, Z., Hosseinkhani, S., Jafari, R., Khajeh, K. Relationship between stability and flexibility in the most flexible region of *Photinus pyralis* luciferase. *Biochimica et Biophysica Acta* 1824 (2012) 350-358.

12) Dastgheib, S.M.M., Amoozegar, M.A., Khajeh, K., Shavandi, M., Ventosa, A.

Biodegradation of polycyclic aromatic hydrocarbons by a halophilic microbial consortium. *Applied Microbiol Biotechnol*, In Press.

13) Tohidi MT, Ranjbar B, Khajeh K. Interaction of lysozyme with gold nanorods: conformation and activity investigations, *Int J Biol Macromol* 49 (2011) 629-36.

14) Mollania N, Khajeh K, Ranjbar B, Hosseinkhani S. Enhancement of bacterial laccase thermostability through directed mutagenesis of a surface loop, *Enzym Microbiol Technol* 49 (2011) 446-452.

15) Azizi A, Ranjbar B, Khajeh K. Effects of trehalose and sorbitol on the activity and structure of *Pseudomonas cepacia* lipase: Spectroscopic insight, *Int J Biol Macromol* 49 (2011) 652-6.

16) Yousefi-Nejad Masoumeh; Manesh Hossein Naderi-; Khajeh Khosro. Proteomics of early and late cold shock stress on thermophilic bacterium, *Thermus* sp. GH5. *J proteomics* 74 (2011) 2100-11.

17) Dabirmanesh B, Khajeh K, Akbari J, Mesophilic alcohol dehydrogenase behavior in imidazolium based ionic liquids. *J Mol Liquids* 161(2011) 139-143.

18) Karimeh H, Khajeh K, Salmanian AH, Ranjbar B, Bakhtiyari S. Acid-Induced Formation of Molten Globule States

- in the wild type *Escherichia coli* 5-Enolpyruvylshikimate 3-Phosphate Synthase and its three mutated forms: G96A, A183T and G96A/A183T. *Protein J* 30 (2011) 132–137.
- 19) Hemmat, J., Yakhchali, B., Khajeh, K., Moosavi-Movahedi, A.A., Karkhane, A.A. Overexpression of full-length core protein of hepatitis C virus by *Escherichia coli* cultivated in stirred tank fermentor. *Iranian J Biotechnol* 9 (2011) 245-252.
- 20) Dabirmanesh B, Daneshjou S, Akhavan Sepahi A, Ranjbar B, Khavarinejad RA, Gill P, Hydari A, Khajeh K. Effect of ionic liquids on the structure, stability and activity of two related α - amylases. *Int J Biol Macromol* 48 (2011) 93-97.
- 21) Kazemi SH, Khajeh K. Electrochemical studies of a novel Biosensor Based on the nanoparticles coated with horseradish peroxidase to determine the concentration of phenolic compounds. *J Iran chem soc* 8 (2011) 152-160.
- 22) Haghani K, Khajeh K, Salmanian AH, Ranjbar B, Bakhtiary S. Acid – induced of molten Globule state in the wild type *Escherichia coli* 5- enolpyruvylshikimate 3-phosphate synthase and its three mutated forms: G96A, A183T and G96A/ A183T. *Protein J* 30 (2011) 132-137.
- 23) Dastghieb SMM, Amoozagar MA, Khajeh K, Ventosa A. A holtolerant *Alcanivorax* sp strain with potential application in saline soil remediation. *Applied microbiol biotechnol* 90 (2011) 305-312.
- 24) Asad S, Torabi SF, Fathi-Roudsari M, Ghaemi N, Khajeh K. Phosphat buffer effects on thermal stability and H2O2-resistance of horseradish peroxidase. *Int J Biol Macromol* 48(2011) 566-570.
- 25) Asad S, Khajeh K, Ghaemi N. Investigating the structural and functional affected of mutating Asn glycosylation sites of horseradish peroxidase to Asp. *Applied Biochem Biotechnol* 164 (2011) 454-463.
- 26) Akbari N, Daneshjoo S, Akbari J, Khajeh K. Isolation, characterization, and catalytic properties of a novel lipase which is activated in ionic liquids and organic solvents. *Applied Biochem Biotechnol* 165 (2011) 785-794.
- 27) Daneshjoo S, Akbari N, Sepahi AA, Ranjbar B, Khavrinejad RA, Khajeh K. Imidazolium chloride-based ionic liquid –assisted improvement of lipase activity in organic solvent, 11(2011) 259-263.
- 28) Gill P, Ranjbar B, Saber R, Khajeh K, Mohammadian M. Biomolecular and Structural Analyses of Cauliflower-like DNAs by Ultraviolet, Circular Dichroism, and Fluorescence Spectroscopies in Comparison with Natural DNA. *J Bio Mol Tech* 22 (2011) 60-66.
- 29) Hashemi, M., Shojaosadati, S.A., Razavi, S.H., Mousavi, S.M., Khajeh, K., Safari, M. The Efficiency of Temperature-Shift Strategy to Improve the Production of α -Amylase by *Bacillus* sp. in a Solid-State Fermentation System. *Food and Bioprocess Tech* (2010) 1-7.

- 30) Asghari SM, Pazhang P, Ehtesham S, Karbalaeei-Heidari HR, Taghdir M, Sadeghizadeh M, Naderi-Manesh H and Khajeh K. Remarkable improvements of a neutral protease activity and stability share the same structural origins. *PEDS* (2010) 1-8.
- 31) Moradzadegan A, Ranaei-siadat SO, Ebrahim-Habibi A, Barshan M, Jalili R, Torabi SF, Khajeh K. Immobilization of acetylcholinesterase in nanofibrous PVA/BSA membranes by Electrospinning. *Eng Life Sci* 10 (2010) 57-64.
- 32) Aminzadeh S, Naderi-Manesh H, Khajeh K, Ranjbar B, Farrokhi N. Characterization of acid- induced partially folded conformation resembling a molten Globule state of polygalacturonase from a filamentous fungus tetracoccusporium sp. *Applied Biochem Biotechnol* 160 (2010) 1921-1932.
- 33) Alikhajeh J, Khajeh K, Ranjbar B, Naderi-Manesh H, Lin Y.-H, Liu E, Guan H.-H, Hsieh Y.-C, Chuankhayan P, Huang Y.-C, Jeyaraman J, Liu M.-Y, Chen C.-J. Structure of *Bacillus amyloliquefaciens* -amylase at high resolution: implications for thermal stability. *Structural Biology and Crystallization Communications* 66 (2010) 121-129.
- 34) Mollania N, Khajeh K, Hosseinkhani S, Dabirmanesh B. Purification and characterization of a thermostable phytate resistant α -amylase from *Geobacillus* sp. LH8. *Int J Biol Macromol* 46 (2010) 27-36.
- 35) Akbari N, Khajeh K, Rezaie S, Mirdamadi S, Shavandi M, Ghaemi N. High- level expression of lipase in *Escherichia coli* and recovery of active recombinant enzyme through in vitro refolding. *Protein Express Pur* 70 (2010) 1, 75-80.
- 36) Akbari N, Kajeh k, Ghaemi N, Salemi Z, Efficient refolding of recombinant lipase from *Escherichia coli* inclusion bodies by response surface methodology. *Protein Express pur* 70 (2010) 254-259.
- 37) Ghollasi M, Khajeh K, Naderimanesh H, Ghasemi A. Engineering of *Bacillus* alpha-Amylase with improved Thermostability and calcium independency. *Applied Biochem Biotechnol* 162 (2010) 444-459.
- 38) Ahmadi A, Ghobadi S, Khajeh K, Nomanpour B, Dalfard AB. Purification of alpha- amylase from *Bacillus* sp GHA1 and its partial characterization. *J Iran Chem Soc* 7(2010) 432-440.
- 39) Badoei-dalfard,A. Khajeh.K, Asghari SM, Ranjbar B, Karbalaeei HR. Enhanced activity and stability in the presence of organic solvents by increased active site polarity and stabilization of a surface loop in a metalloprotease. *J Biochem* 148 (2010) 231-238.
- 40) Shavandi M, Sadeghizadeh M, Khajeh K, mohebbali GH, Zomorodipour A. Genomic structure and promoter analysis of the *dsa* operon for dibenzothiophene biodesulfurization from *Gordonia* alkanivorans from *Gordonia*

alkanivorans RIP90A. *Appl microbial biotechnol* 87(2010) 1455-1461.

41) Mohammadian M, FathiRoudsari M, Mollania N, Badoei-Dalfard A, Khajeh K. Enhanced expression of a recombinant bacterial laccase at low temperature and micro aerobic condition: purification and biochemical characterization . *J Ind Microbiol Biotechnol* 37(2010) 863-869.

42) Pazhang M, Khajeh K, Asghari SM, Falahati H, Naderimanesh H. Cloning, Expression, and characterization of a novel Methylglyoxal synthase from *Thermus* sp Strain GH5. *Appl biochem biotechnol* 162(2010) 1519-1528.

43) Zeinoddini M, Khajeh K, Behzadian F, Hosseinkhani S, saeedinia AR, Barjesteh H. Design and characterization of an Aequorin – based Bacterial biosensor for detection of toluene and related compounds. *J Photochem photobiol* 86 (2010) 1071-1075.

44) Gholivand K, Farshadian S, Hosseini Z, Khajeh K, Akbari N. Two novel diorganotin phosphonic diamides: syntheses, crystal structures, spectral properties and in vitro antibacterial studies. *Appl Organomet Chem* 24 (2010) 700-707.

45) Hashemi M, Razavi SH, Shojaosadati SA, Mousavi SM, Khajeh K, Safari M. Development of a solid-state fermentation process for production of an alpha amylase with potentially interesting properties. *J Biosci Bioeng* 110 (2010) 333-337.

46) Aminzadeh S, Naderi-Manesh H, Khajeh K, Ranjbar B, Farrokhi N. Characterization of Acid-Induced Partially Folded Conformation Resembling a Molten Globule State of Polygalacturonase from a Filamentous Fungus *Tetracoccusporium* sp. *Appl Biochem Biotechnol* 160(2010) 2921-1932.

47) Zareian S, Khajeh K, Ranjbar B, Dabirmanesh B, Ghollasi M, Mollania N. Purification and characterization of a novel amylopullulanase that converts pullulan to glucose, maltose, and maltotriose and starch to glucose and maltose. *Enzyme Microb Technol* 46 (2009) 57-63.

48) Ataei F, Hosseinkhani S, Khajeh K. Luciferase protection against proteolytic degradation: A key for improving signal in nano-system biology. *J Biotechnol* 144(2009) 83-88.

49) Ataei F, Hosseinkhani S, Khajeh K. Limited proteolysis of luciferase as a reporter in nanosystem biology: a comparative study. *Photochem Photobiol* 85 (2009) 1162-1167.

50) Yazdani M, Naderi-Manesh H, Khajeh K, Soudi MR, Asghari SM, Sharifzadeh M. Isolation and characterization of a novel gamma-radiation-resistant bacterium from hot spring in Iran. *J Basic Microbiol* 49(2009) 119-27.

51) Akbari N, Khajeh K, Ghaemi N, Salemi Z. Efficient refolding of recombinant lipase from *Escherichia coli* inclusion bodies by response surface methodology. *Protein Expr Purif* 70 (2009) 254-259.

- 52) Khajeh K, Asghari M, Pazhang M, Ehtesham S, Karbalaeei-Heidari HR, Taghdir M. Remarkable improvements of enzyme activity and stability share the same structural origins. *N Biotechnol* 25 (2009) Page S142.
- 53) Etezad SM, Khajeh K, Soudi M, Tajer Mohammad Ghazvini P, Dabirmanesh B. Evidence on the presence of two distinct enzymes responsible for the reduction of selenate and tellurite in *Bacillus* sp. STG-83. *Enzyme Microb Technol* 45(2009) 1-6.
- 54) Moradian F, Khajeh K, Naderi-Manesh H, Sadeghizadeh M. Isolation, purification and characterization of a novel thermostable alkaline serine protease resistance to surfactant and active in organic solvent. *Appl Biochem Biotechnol* 159 (2009) 33-45.
- 55) Shavandi M, Sadeghizadeh M, Zomorodipour AR, Khajeh K, Biodesulfurization of dibenzothiophene by recombinant *Gordonia alkanivorans* RIPI90A. *Bioresource Technol* 100 (2009) 475-479.
- 56) Soudi MR, Mohammad Ghazvini PT, Khajeh K, Gharavi S. Bioprocessing of seleno-oxyanions and tellurite in a novel *Bacillus* sp. strain STG-83: A solution to removal of toxic oxyanions in presence of nitrate. *J Hazard Mater* 165 (2009) 71-77.
- 57) Nasiripourdori A, Naderi-Manesh H, Ranjbar B, Khajeh K. Co-solvent Effects on Structure, Function Properties of Savinase: Solvent Induced Thermal Stabilization. *Int J Biol Macromol* 44 (2009) 311-315.
- 58) Maroufi B, Ranjbar B, Khajeh K, Naderi-Manesh H, Yaghoobi H. Structural studies of hen egg-white lysozyme dimer: Comparison with monomer. *Biochem Biophys Acta* 1784 (2008) 1043-1049.
- 59) Ghalanbor Z, Ghaemi N, Marashi SA, Amanlou M, Habibi-Rezaei M, Khajeh K, Ranjbar B. Binding of Tris to *Bacillus licheniformis* alpha-amylase can affect its starch hydrolysis activity. *Protein Pept Lett* 15 (2008) 212-214.
- 60) Haghani K, Salmanian AH, Ranjbar B, Zakikhan-Alang K and Khajeh K. Comparative studies of wild type *Escherichia coli* 5-enolpyruvylshikimate 3-phosphate synthase with three glyphosate-insensitive mutated forms: Activity, stability and structural characterization. *Biochem Biophys Acta* 1784 (2008) 1167-1175.
- 61) Mortazavi M, Hosseinkhani S, Khajeh K, Ranjbar B, Emamzadeh AR. Spectroscopic and functional characterization of *Lampyris turkestanicus* luciferase: a comparative study. *Acta Biochim Biophys* 40 (2008) 365-74.
- 62) Amoozegar MA, Salehghamari E, Khajeh K, Kabiri M, Naddaf S. Production of an extracellular thermohalophilic lipase from a moderately halophilic bacterium, *Salinivibrio* sp. strain SA-2. *J Basic Microbiol* 48 (2008)160-167.
- 63) Parsaie S, Shariatmadari F, Zamiri MJ, Khajeh K. Influence of wheat-based diets supplemented with xylanase, bile acid and antibiotics on performance, digestive tract measurements and gut morphology of broilers compared with a maize-based diet. *Br Poult Sci* 48 (2007) 594-600.

- 64) Khalaj-Kondori M, Sadeghizadeh M, Khajeh K, Naderi-Manesh H, Ahadi AM, Emamzadeh A. Cloning, sequence analysis and three-dimensional structure prediction of DNA pol I from thermophilic *Geobacillus* sp. MKK isolated from an Iranian hot spring. *Appl Biochem Biotechnol* 142 (2007) 200-208.
- 65) Alikhajeh J, Khajeh K, Naderi-Manesh M, Ranjbar B, Naderi-Manesh H and Sajedi RH. Kinetic analysis, structural studies and prediction of pKa values of *Bacillus KR-8104* α -amylase: the determinants of pH-activity profile. *Enzyme Microb Technol* 41(2007) 337-345.
- 66) Ghasemi A., Khajeh K and Ranjbar B. Stabilization of *Bacillus licheniformis* alpha-amylase by specific antibody which recognizes the N-terminal fragment of the enzyme. *Int J Biol Macromol* 41 (2007) 162-167.
- 67) Torabi SF, Khajeh K, Ghasempur S, Ghaemi N and Ranaei SO. Covalent attachment of cholesterol oxidase and horseradish peroxidase on perlite through silanization: activity, stability and co-immobilization. *J Biotechnol* 131(2007) 111-120.
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- 69) Sajedi RH, Taghdir M, Naderi-Manesh H, Khajeh K, Ranjbar B. Nucleotide sequence, structural investigation and homology modeling studies of a Ca^{2+} -independent alpha-amylase with acidic pH-profile. *J Biochem Mol Biol* 40 (2007) 315-24.
- 70) Rooki H, Khajeh K, Mostafaie A, Kashanian S, Ghobadi S. Partially Folded Conformations of Bovine Liver Glutamate Dehydrogenase Induced by Mild Acidic Conditions. *J Biochem* 142 (2007) 193-200.
- 71) Zandi K, Farsangi MH, Nabipour I, Soleimani M, Khajeh K, Sajedi RH and Jafari SM. Isolation of a 60 kDa protein with in vitro anticancer activity against human cancer cell lines from the purple fluid of the Persian Gulf sea hare, *Aplysia dactylomela*. *Afr J Biotechnol* 6 (2007) 1280-1283.
- 72) Yaghoobi H, Khajeh K, Hosseinkhani S, Ranjbar B, Naderi-Manesh H. Application of zero-length cross-linking to form lysozyme, horseradish peroxidase and lysozyme- peroxidase dimers: activity and stability. *Int J Biol Macromol* 41(2007) 624-30.
- 73) Moradian F, Khajeh K, Naderi-Manesh H, Ahmadvand R, Sajedi RH, Sadeghizadeh M. Isolation, production and characterization of alkaline proteases from *Bacillus* sp. *HS-08* and *KR-8102*. *Appl Biochem Biotechnol* 134 (2006) 77-87.
- 74) Khajeh K, Monsef Shokri M, Asghari M, Ghasemi A, Moradian F, Ranjbar B, Sadeghi M, Hosseinkhani S, Naderi-Manesh H. Acidic and proteolytic digestion of thermophilic and mesophilic α -amylases: stability and flexibility analysis. *Enzyme Microbial Technol* 38 (2006) 422-428.

- 75) Badoei Dalfard A, Khajeh K, Soudi M, Naderi-Manesh H, Ranjbar B. Isolation and biochemical characterization of laccase and tyrosinase activities in a novel melanogenic soil bacterium. *Enzyme microbial Technol* 39 (2006)1409-1416.
- 76) Hassani L, Ranjbar B, Khajeh K, Naderi-Manesh H, Naderi-Manesh M and Sadeghi M. Horseradish peroxidase Thermostabilization: The combinatorial effects of the surface modification and the polyols. *Enzyme Microbial Technol* 38 (2006) 118-125.
- 77) Gholivand K, Mojahed F, Salehi M, Naderi-Manesh H and Khajeh K. Synthesis, characterization and toxicity properties of two oxono and thino analogues of phosphoramidate compounds. *J Enzyme Inhib Med Chem* 21 (2006) 521-525.
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- 79) Monsef M, Khajeh K, Hosseinkhani S, Ranjbar B. Comparison of the molten globule states of thermophilic and mesophilic α -amylases. *Biophys Chem* 122 (2006) 58-65.
- 80) Mirshahi M, Shamsipour F, Mirshahi T, Khajeh K and Naderi-Manesh H. A novel monoclonal antibody with catalytic activity against beta human chorionic gonadotropin. *Immunol Lett* 106 (2006) 57-62.
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- 85) Sajedi RH , Naderi-Manesh H , Moradian F, Khajeh K , Ahmadvand R , Ranjbar B , Asoodeh A. A Ca-independent α -amylase that is active and stable at low pH from the *Bacillus* sp. KR-8104. *Enzyme Microbial Technol* 36 (2005) 666-671.

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