

Curriculum Vitae
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EDUCATION:

1. B. Sc in Chemistry: University of Jordan Amman, Jordan (1970).
2. M. Sc in Chemistry: University of Jordan, Amman, Jordan (1977).
3. Ph.D. in Chemistry (Organic Chemistry: Natural Products), Pennsylvania State University, USA, (1981).

PROFESSIONAL EXPERIENCE:

1. High School Teacher: Ministry of Education, Amman, Jordan (1970 - 1974).
2. Lecturer: University of Jordan, Amman, Jordan (1977 - 1978).
3. Assistant Professor: University of Jordan, Amman, Jordan (1981 - 1987).
4. Associate Professor: University of Jordan, Amman, Jordan (1987 - 1995).
5. Professor: University of Jordan, Amman, Jordan (1995).
6. Chairman of the Chemistry Department, University of Jordan, Amman-Jordan (1997-2000).
7. Chairman of the Chemistry Department, University of Jordan, Amman-Jordan (2007-2008).

SCIENTIFIC COMMITTEES

- Editor, Jordan Journal of Chemistry
- Scientific Editor, Journal of Pure and Applied Chemistry, Issue 9; Volume 83, 2011.

- Member of The National Committee for Writing Science and Chemistry Texts for Ministry of Education in Jordan.
- Writing The Science and Chemistry Texts for The Open Arab University.
- Writing and Coordinating Some Science and Chemistry Texts for Obeikan Corporation.
- Chairman of the Scientific Committee, 11th Eurasia conference on Chemical Sciences, Dead Sea, Jordan, 2010.
- Member of the Organizing Committee of the 11th Eurasia Conference on Chemical Sciences.
- Chairman of The First Conference on Natural products and Drug Design, The University of Jordan, Amman, Jordan, 2015.

FIELD OF SPECIALIZATION

Natural Products Chemistry

GRADUATE STUDENT SUPERVISION (MASTER AND PH. D)

1. Master : 50
2. Ph. D : 11

LIST OF PUBLICATIONS:

1. Scientific Research Visit; Bonn University, 1976.
2. Scientific Research Visit; Pennsylvania State University, 1985.
3. Scientific Research Visit to HEJ Research Institute of Chemistry, University of Karachi-Pakistan, 1990.
4. Scientific Research Visit to HEJ Research Institute of Chemistry, University of Karachi-Pakistan, 1987.
5. Applied Science University Amman, Jordan (1991 / 1992), Chairman of Chemistry & Physics Department.
6. Hashemite University, Zarqa, Jordan (1995 / 1996) Chairman of Chemistry & Physics Department.
7. Scientific Research Visit; Tuebingen University, 1996.

8. Applied Science University Amman, Jordan (2002/ 2003).
9. Al-Zaytoonah University, Amman, Jordan (2009/2010).
10. Philadelphia University, Jerash, Jordan (2016/2017).

SCIENTIFIC CONTRIBUTIONS

1. M. El-Abadelah, S. Sabri, A. Jarrar and **M. Abu Zarga** "Chiroptical Properties of N-(2-Pyrazinoyl)- α -amino-esters,-aziridines, and Related Compounds" *J. Chem. Soc. Perkin 1*, 2881 (1979).
2. **M. Abu Zarga** and M. Shamma "The Absolute Configuration of Berberastine and Thalidastine" *Tetrahedron Letters*, 3739 (1980).
3. **M. Abu Zarga**, G. Miana and M. Shamma "The Quettamines: A New Class of Isoquinoline Alkaloids" *Tetrahedron Letters*, 541 (1981).
4. **M. Abu. Zarga**, G. Miana and M. Shamma "Gandharamine: A New Benzylisoquinoline Alkaloid from *Berberis baluchistanica*" *Heterocycles*, **18**, 63 (1982).
5. **M. Abu Zarga** and M. Shamma "A Spectral Method for the Determination of the Position of A Phenolic Group on Ring A of an Aporphine. Four New Aporphines from *Polyalthia acuminata*" *J. Nat. Prod.*, **45**, 471 (1982).
6. Ikram M; Shafi N; **Zarga M A**. "Chemical investigation of *Cocculus leaebe*" *Planta medica* **45**, 253-4 (1982).
7. M. Onur, **M. Abu Zarga** and T. Gozler "Hypecumine: A New 3-Arylisoquinoline Alkaloid from *Hypecoum procumbens*" *Planta Medica*, **52**, 70 (1986).
8. **M. Abu Zarga** "Three New Simple Indol Alkaloids from *Limonia acidissima*" *J. Nat. Prod.*, **49**, 901 (1986).

9. A. Aboudi, D. Al-Eisawi, S. S. Sabri, and **M. Abu Zarga** "Chemical Constituents of Flora of Jordan-I. Alkaloids of *Fumaria densiflora*" *J. Nat. Prod.* **49**, 370 (1986).
10. K. Abu Safieh, D. Al-Eisawi, **M. Abu Zarga** and S. Sabri "Chemical Constituents of Flora of Jordan-II. Alkaloids of *Leotice leontopetalum*" *J. Nat. Prod.* **49**, 726 (1986).
11. S. Abdalla and **M. Abu Zarga** "Effects of Cirsimaritin, A Flavone Isolated from *Artemisia judaica* L. on Isolated Guinea-Pig Ileum" *Planta Medica*, **53**, 322 (1987).
12. A. J. Freyer, **M. H. Abu Zarga**, S. S. Sabri S. Firdous, H. Guinaudeau and Maurice Shamma "Five New Alkaloids From *Colchicum ritchi*" *J. Nat. Prod.*, **50**, 684 (1987).
13. S. Sabri, **M. Abu Zarga**, S. Firodus and M. Shamma Fumadensine "A New Phthalideisoquinoline Alkaloid from *Fumaria densiflora*" *Phytochemistry*, **26**, 1233 (1987).
14. G. Nukul, **M. Abu Zarga**, S. S. Sabri and D. Al-Eisawi "Chemical Constituents of Flora of Jordan, Part III. Mono-O-Acetyl Diphyllin Apioside, A New Arylnaphthalene Lignan from *Haplophyllum buxbaumii*" *J. Nat. Prod.* **50**, 748 (1987).
15. S. Abdalla, **M. Abu Zarga**, F. Afifi, S. Al-Khalili and S. Sabri "Effects of Hispidulin, A Flavone Isolated from *Inula viscosa*, on Isolated Guinea-Pig Smooth Muscle" *Gen. Pharmac.* **19**, 559 (1988).
16. S. Abdalla, **M. Abu Zarga**, F. Afifi, S. Al-Khalili, A. Mahasneh and S. Sabri "Effects of 3,3'-Di-O-Methylquercetine on Isolated Guinea-Pig Smooth Muscle" *J. Pharma. Pharmacol.* **41**, 138 (1989).

17. E. Tojo, **M. H. Abu Zarga**, S. S. Sabri, A. J. Freyer and M. Shamma "The Homoaporphine Alkaloids of *Androcymbium palaestinum*" *J. Nat. Prod.*, **52**, 1055 (1989).
18. E. Tojo, **M. H. Abu Zarga**, A. J. Freyer and M. Shamma "The Dibenzocycloheptylamine Alkaloids" *J. Nat. Prod.*, **52**, 1163 (1989).
19. A. A. Alfatafta, **M. H. Abu Zarga**, S. S. Sabri, A. J. Freyer and M. Shamma "An Investigation of *Bongardia chrysogonum*" *J. Nat. Prod.*, **52**, 818 (1989).
20. S. Abdalla, **M. Abu Zarga** and S. Sabri "Preliminary Observations on The Pharmacology of Petaline Chloride, A Quaternary Alkaloid from *Leontice Leontopetalum*" *Gen. Pharmac.*, **20**, 565 (1989).
21. Y. Al-Abed, S. Sabri, **M. Abu Zarga**, Z. Shah and Atta-Ur-Rahman "Two Arylnaphthalene Lignans from *Haplophyllum buxbaumii*" *Phytochemistry*, **29**, 2659 (1990).
22. Y. Al-Abed, S. Sabri, **M. Abu Zarga**, Z. Shah and Atta-Ur-Rahman Chemical constituents of The Flora of Jordan, Part V-b "Three New Arylnaphthalene Lignan Glucosides from *Haplophyllum buxbaumii*" *J. Nat. Prod.*, **53**, 1152 (1990).
23. T. Al-Tel, **M. Abu Zarga**, S. Sabri, A. Freyer and M. Shamma "New Natural Colchicinoids: Indications of Two Possible Catabolic Routes for The Colchicine Alkaloids" *J. Nat. Prod.*, **53**, 623 (1990).
24. W. Herath, **M. H. Abu Zarga**, S. S. Sabri, H. Guinaudeau, and M. Shamma "Some C-Secocularines from *Ceratocarpus palaestinus*" *J. Nat. Prod.*, **53**, 1006 (1990).
25. Taleb H. Al-Tel, Salim S. Sabri, **Musa H. Abu Zarga**, Azra Pervin, Zhair Shah, Atta-Ur-Rahman and David S. Rycroft "A Lupine Alkaloid From *Leontice leontopetalum*" *Phytochemistry*, **30**, 2393 (1991).

26. Taleb H. Al-Tel, Musa H. Abu Zarga, Salim S. Sabri, M. Feroz, N. Fatima, Zahir Shah and Atta-Ur-Rahman "Phenolics from *Colchicum decaisnei*" *Phytochemistry*, **30**, 3081 (1991).
27. **Musa H. Abu Zarga**, Salim S. Sabri, Taleb H. Al-Tel, Atta-Ur-Rahman, Zahir Shah and M. Feroz "New Natural Dibenzocycloheptylamine Alkaloids. A Possible Catabolic Route for the Colchicine Alkaloids" *J. Nat. Prod.*, **54**, 396 (1991).
28. E. Mustafa, S. Abdalla, **M. Abu-Zarga**, S. Sabr "Constituents of *Achillea fragrantissima* and Effects of 13-O-Desacetyl-B-hydroxyafragloucolide on Rat Isolated Smooth Muscle" *Fitoterapia*, **LXIII**, 526 (1992).
29. E. Mustafa, **M. Abu Zarga** and S. Abdalla "Effect of Cirsiliol, A Flavone Isolated from *Acillea fragrantissima* on rat isolated Ileum" *Gen. Pharmac.*, **23**, 555 (1992).
30. **M. Abu-Zarga**, S. Sabri, T. Al-Tel, Atta-Ur-Rahman, N. Fatima and Z. Shah "Pharmacological Screening of (+)-Multifloramine from *Colchicum decaisnei*" *Phytotherapy Research*, **6**, 305 (1992).
31. S. A. Ghazal, **M. Abu Zarga** and A. M. Mahasneh "Antimicrobial Activity of *Polygonum equisetiforme* Extracts and Flavonoids" *Phytotherapy Research*, **6**, 265 (1992).
32. L. Abu-Niaaj, **M. Abu-Zarga**, S. Sabri and S. Abdalla "Isolation and Biological Effects of 7-O-Methylerythrodityol, A Flavanone Isolated from *Artemisia monosperma*, on Rat Isolated Smooth Muscles" *Planta Medica*, **59**, 42 (1993).
33. S. Abdalla, **M. Abu Zarga** and S. Sabri "Effects of Oblongine Chloride, An Alkaloid from *Leontice Leontopetalum* on Guinea-Pig Isolated Smooth Muscle and Heart" *Gen Pharmac.*, **24**, 299 (1993).

34. S. Abdalla, **M. Abu Zarga** and S. Sabri "Alkaloids of *Sternbergia clusiani* and Effect of Lycorine on Guinea-Pig Isolated Pulmonary Artery and Heart" *Fitoterapia*, **LXIV**, 518 (1993).
35. S. Abdalla, **M. Abu Zarga** and S. Sabri "Effects of The Flavone Luteolin, Isolated from *Colchicum ritchii*, on Guinea-Pig Isolated Smooth Muscle and Heart and on Blood Pressure and Blood Flow" *Phytotherapy Research*, **8**, 265 (1994).
36. **Musa Abu Zarga**, Raed Qawasmeh, Salim Sabri, Munsoor Munsoor and Shtaywy Abdalla "Chemical Constituents of *Artemisia arborescens* and the Effect of The Aqueous Extract on Rat Isolated Smooth Muscle" *Planta Medica*, **61**, 242 (1995).
37. **Musa H. Abu Zarga**, Taleb H. Al-Tel, Yousef Al-Abed and Wolfgang Voelter "Synthesis of 3-Amino-3-deoxy Sugars through Intramolecular Carbamate Cyclizations on Neighbouring Oxirane Ring" *Z. Naturforsch.*, **50b**, 697 (1995).
38. **Musa H. Abu Zarga**, Taleb H. Al-Tel, Salim S. Sabri, Zahir Shah, Syed Arshad Jamal and M. Iqbal Choudhary, Atta-Ur-Rahman "Quettamine-type Alkaloids from *Leontice leontopetalum*" *Natural Product Letters*, **5**, 315 (1995).
39. **Musa Abu Zarga**, Salim Sabri, Amal Al-Aboudi, M. Saleh Ajaz, Naheed Sultana and Atta-Ur-Rahman "New Cyclopeptide Alkaloids from *Ziziphus lotus*" *J. Nat. Prod.*, **58**, 504 (1995).
40. **Musa H. Abu Zarga**, Raed A. Al-Qawasmeh, Salim S. Sabri, Taleb H. Al-Tel. Wolfgang Voelter "New Colchicine and Homoaporphine-N-Oxide Alkaloids from *Colchicum Ritchii*: The First Homoaporphine N-Oxide Found In Nature" *Z. Naturforsch*, **50b**, 1424 (1995).

41. M. M. El-Abadelah, S. S. Sabri, **M. H. Abu Zarga** and R. J. Abdel-Jalil "Substituted Benzimidazoles. Part I. Synthesis and Properties of some 2-Aryl-5-fluoro-6-(4-methyl-1-piperazinyl)-1H-Benzimidazoles" *Heterocycles*, **41**, 2713 (1995).
42. **Musa H. Abu-Zarga** "High Resolution NMR Studies on the Homoaporphine Alkaloids from *Colchicum Decaisnei*" *J. Prakt. Chem.*, **337**, 675 (1995).
41. S. Abdalla, **M. Abu Zarga** and S. Sabri "Cardiovascular Effect of Oblongin Chloride, An Alkaloid from *Leontice Leontopetalum*, in the Anesthetized Guinea Pig" *Phytother.Res.*, **9**, 60 (1995).
42. M. M. El-Abadelah, **M. H. Abu Zarga** S. S. Sabri, S. Abdalla "Effect of Cirsiliol, A flavone Isolated from *Achillea fragrantissima*, on Rat Isolated Smooth Muscles" *Int. J. Pharmacog.*, **33**, 204 (1995).
43. Abu-Niaaj. Lubna, **Musa. H. Abu Zarga** Shtaywy. Abdalla "Isolation and inhibitory Effect of Eupatilin, A Flavone Isolated from *Artemisia monosperma* Del, on Rat Isolated Smooth Muscles" *Int. J. Pharmacog.*, **34**, 134 (1996).
44. S. Al-Khalil, S. Sabri, W. Al-Dwairi, D. Al-Eisawi **M. Abu Zarga** Voelter Wolfgang, Zeller, Klaus-peter "Chemical Constituents of *Sternbergia clusiana*" *Alex. J. Pharm. Sci.*, **11**, 65 (1997).
45. **M. H Abu Zarga** Emad Hamed, Salim. Sabri. Voelter Wolfgang, Zeller, Klaus-Peter "New Sesquiterpenoids from the Jordanian Medicinal Plant *Inula Viscosa*" *J. Nat. Prod.*, **61**, 798 (1998).
46. Al-Abed Yousef, **Musa M. Abu Zarga** and Salim S. Sabri Atta-Ur-Rahman, Voelter Wolfgang "A Arylnaphthalene Lignan from *Halophyllum buxbaumii*" *Phytochemistry*, **49**, 1779 (1998).

47. Suleiman Al-Khalil, **Musa Abu Zarga**, Nissreen Zeitoun, Al-Eisawi, Dawud; Zahra, Jalal; Sabri, Salim; Atta-Ur-Rahman. "Chemical Constituents of *Capsella bursa-pastoris*" *Alexandria J. Pharm. Sci.* **14**, 91 (2000).
48. Abu Safieh, Kayed A.; El-Abadelah, Mustafa M.; Sabri, salim S.; **Abu Zarga, Musa H.**; Voelter Wolfgang; Mossmer, cacilia M."Synthesis of Pyrazole-fused Azepino[5,4,3-3c]indoles" *J. Heterocycl. Chemistry*, **38**, 623 (2001).
49. M, Khanfar, S. Sabri, **M. Abu Zaega**, and K-P Zeller "The Chemical Constituents of *Capparis spinosa*" *Natural Product Letters*, **17**, 9 (2003).
50. **M. Abu Zarga**, S. Sabri, E. Hamed, M. Khanfar, K-P. Zeller and Atta-Ur-Rahman, "A New Eudesman Type sesqiterpene from *Inula viscosa*" *Natural Product Research*, **17**, 99 (2003).
51. M. Nawasreh, **M. Abu Zarga**, S. Sabri, S. Al-Khalil, E. Bomeister, K-P. Zeller and Atta-Ur-Rahman " A new Anthranilic Acid Derivative from *Ononis natrix* of Jordanian Origin" *Alexandria J. Pharm. Sci.* **18**, 91 (2004).
52. E. Qnais, F. Abdulla, M. Khanfer, **M. Abu Zarga**, and Y. Abu Galyun "Effects of Kreysigine, an Alkaloid Isolated from *Colchicum decaisnei* on Ileum Smooth Muscle and Intestinal Mobility of Rats" *International Journal of Pharmacology*, **2**, 452 (2006).
53. A. F. Al-Aboudi, M. K. Fayyad and **M. Abu Zarga** "Polarographic Study of the Complexation between the Chemical Constituents of *Phragmites australis* and Heavy Metals" *Fresenius Enviromental Bulletin*, **15**, 1271, (2006).
54. Amjad B. Khalil, **Musa Abu Zarga** and Mohammad Al-Qaryouti "Production of Antimicrobial Agents from *Thermophilic Yesinia sp.1* and *Aeromonas hydrophila* Isolated from Hot Spring in Jordan Vally" *Biotechnology*, **5**, 252 (2006).

55. Ra'ed J. Abu Fares, Ibrahim K. Nazer, Rula M. Darwish and **Musa H. Abu Zarga**. "Honey Bee Hive Modification for Propolis Collection". *Jordan Journal of Agricultural Science*, **4**, 138, (2008).
56. Abeer H. Harb, **Musa Abu Zarga** and Shtaywy Abdalla. "Effect of Trans-Resveratrol, Isolated from *Smilax Aspera* on Smooth Muscle, Blood Pressure, and Inflammation in Rat and Nociception in Mice" *Jordan Journal of Biological Science*, **2**, 69 (2009)
57. Rula Darwish, Rae'd Abu Fares, **Musa Abu Zarga** and Ibrahim Nazer "Antifungal Activity of Jordanian Propolis on Different Resistant and Standard Species of *Candida*" *Mellifera*, **9**, 23 (2009).
58. Hala I. Al-Jaber, Ibrahim M. Mosleh, Abdallah Mallouh, Omar M. Abu Salim and **Musa H. Abu Zarga** "Chemical Constituents of *Osyris alba* and their Antiparasitic Activities" *Journal of Asian Natural Products Research*, **12**, 814 (2010).
59. Rami Suleiman, **Musa Abu Zarga** and Salim S. Sabri. "New Withanolide from *Mandragora officinarum*: First Report of Withanolides from the Genus *Mandragora*" *Phytochemistry. Fitoterapia*, **81**, 864 (2010).
60. Mahmoud A. Al-Qudah and **Musa H. Abu Zarga**, "Chemical Composition of Essential Oils from Aerial Parts of *Sisymbrium Irio* from Jordan" *E. Journal of Chemistry*, **7**, 6 (2010).
61. Mahmoud A. Al-Qudah and **Musa H. Abu Zarga** "Chemical Constituents of *Sisymbrium Irio L.* from Jordan" *Natural Product Research*, **24**, 448 (2010).
62. Rula Darwish, Rae'd Abu Fares, **Musa Abu Zarga** and Ibrahim Nazer. "Antibacterial Effect of Jordanian Propolis and Isolated Flavones Against

- Human Bathogenic Bacteria Strains" *African Journal of Biotechnology*, **9**, 5966 (2010).
63. Mohamoud A. Al-Qudah, Hala I. Al-Jaber, Abdulraouf S. Mayyas, sultan T. Abu-Orabi and **Musa H. Abu Zarga** "Chemical Composition of Essential Oil from the Jordanian Medicinal Plant *Dittrichia Viscosa*" *Jordan Journal of Chemistry*, **5**, 343 (2010).
64. Yahia S. Al-Awthman, **Musa H. Abu Zarga**, Shtaywy Abdalla "Flavonoids Content of *Dracaena cinnabari* Resin and Effects of the Aqueous Extract on Isolated Smooth Muscle Preparations, Perfused Heart, Blood Pressure and Iuresis in the Rat" *Jordan Journal of Pharmaceutical Sciences*, **3**, 8(2010).
65. Safa A. Shaheen, **Musa H. Abu Zarga**, Ibrahim k. Nazer, Rula M. Darwish and Hala I. Al-Jaber "Chemical Constituents of Jordanian Propolis " *Natural Product Research*, **25**, 1312 (2011).
66. Mukaram Shikara, **Musa H. Abu Zarga** "NADP⁺-Dependent Isocitrate Dehydrogenase from Human Kidney Mitochondria" *African Journal of Biotechnology* **10**, 17070 (2011).
67. 11th Eurasia Conference On Chemical Sciences, Held At The Dead Sea, Jordan, 6-10 October 2010. [In: *Pure Appl. Chem.*, 2011; 83(9)] .**Abu Zarga, Musa H.**; Editor . (2011), 158 pp..
68. Wamidh H. Talib, **Musa H. Abu Zarga**, Adel M. Mahasneh. "Antiproliferative, Antimicrobial and Apoptosis Inducing Effects of Compounds Isolated from *Inula viscose*" *Molecules*, **17**, 3291. (2012).
69. Hala I.Al-Jaber, Khadeja K.Abrouni, Mahmud A.Al-Qudah, **Musa H. Abu Zarga** "New Terpenes from *Salvia palaestina Benth.* and *Salvia syriaca L.* Growing Wild in Jordan " *Journal of Asian Natural Products Research*, **14**, 618 (2012).

70. Zohra Y. Babaamer; Lakhdar Sakhri; Hala I. Al-Jaber; Mahmoud A Al-Qudah, **Musa H. Abu Zarga** "Two New Taraxasterol-Type Triterpenes from *Pergularia tomentosa* Growing Wild in Algeria" *Journal of Asian Natural Products Research* **14**, 1137 (2012).
71. Raed A. Al-Qawasmeh, Monther A Khanfar. **Musa H. Abu Zarga**. Murad A Al Damen "2.2-(4-Methylphenyl)quinoline-4-carboxylic Acid" *Acta Crystallographica, Section E*. **E68(10)**, 02892 (2012).
72. Mahmoud A. Al-Quda, Riyadh Muhaidat, Ibrahim N. Tarawneh, Hala I. Al-Jaber, Musa H. Abu Zarga, Sultan T. abu Orabi. "Volatile Constituents of Leaves and Bulbs of *Gynandris sisyrinchium* and their Antimicrobial Activities" *Jordan Journal of Chemisty*, **6**, 287 (2012).
73. Al-Qudah, Mahmoud A.; Muhaidat, Riyadh; Alomary, Ahmed A.; Malkawi, Emad H.; Al-Jaber, Hala I.; Trawenh, Ibrahim N.; **Abu Zarga, Musa H.**; Abu Orabi, Sultan T. "Investigatig the chemical composition and the antimicrobial activity of the essential oil and crude extracts of *Sedum microcarpum* (Sm.) Schonl growing wild in Jordan" *Pharmacognosy Journal* (2012), 4(33), 1-6.
74. **Abu Zarga, Musa H.**; Al-Jaber, Hala I.; Baba Amer, Zahra Y.; Sakhrib, Lakhdar.; Al-Qudah, Mahmoud A.; Al-Humaidi, Jehan Y. G.; Abaza, Ismail F.; Afifi, Fatma U "Chemical Composition, Antimicrobial and Antitumor Activities of Essential Oil of *Ammodaucus leucotrichus* Growing in Algeria" *Journal of Biologically Active Products from Nature* **3**, 224-231 (2013).
75. F Al-Qudah, Mahmoud A.; Al-Jaber, Hala I.; **Abu Zarga, Musa H.**; Abu Orabi, Sultan T. "Flavonoid and phenolic compounds from *Salvia palaestina* L. growing wild in Jordan and their antioxidant activities" *Phytochemistry* **99**, 115-120 (2014).
76. Al-Qudah, Mahmoud A.; Al-Ghoul, Areej M.; Trawenh, Ibrahim N.; Al-Jaber, Hala I.; Al Shboul, Tareq M.; **Abu Zarga, Musa H.**; Abu Orabi, Sultan T.

- "Antioxidant Activity and Chemical Composition of Essential Oils from Jordanian *Ononis Natrrix* L. and *Ononis Sicula* Guss" *Journal of Biologically Active Products from Nature* **4**, 52-61 (2014).
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78. Al-Qudah, Mahmoud A.; Al-Jaber, Hala I.; **Abu Zarga, Musa H.**; Abu Orabi, Sultan T. "Flavonoid and phenolic compounds from *Salvia palaestina* L. growing wild in Jordan and their antioxidant activities" *Phytochemistry* **99**, 115-120 (2014).
79. Al-Jaber, Hala I.; Hammad, Hana M.; Al-Qudah, Mahmoud A.; Abaza, Ismail F.; Al-humaidi, Jehan Y. G.; **Abu-Zarga, Musa H.**; Afifi, Fatma U "Volatile Oil Composition and Antiplatelet Activity of Jordanian *Achillea biebersteinii* Collected at Different Growth Stages" *Journal of Essential Oil-Bearing Plants* **17**, 584-598 (2014).
80. Bouaziz, Amel; Khennouf, Seddik; Abdalla, Shtaywy; Djidel, Saliha; **Abu Zarga, Mussa**; Bentahar, Assia; Dahamna, Saliha; Baghiani, Abderahmane; Amira, Smain "Phytochemical analysis, antioxidant activity and hypotensive effect of Algerian azarole (*Crataegus azarolus* L.) leaves extracts" *Research Journal of Pharmaceutical, Biological and Chemical Sciences* **5**, 286-305 (2014).
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82. Abu Irmaileh, Barakat E.; Al-Aboudi, Amal M. F.; **Abu Zarga, Musa H.**; Awwadi, Firas; Haddad, Salim F "Selective phytotoxic activity of 2,3,11 β ,13-

tetrahydroaromaticin and ilicic acid isolated from *Inula graveolens*" *Natural Product Research* **29**, 893-898 (2015).

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84. Sweidan, Kamal; Engelmann, Jorn; Abu Rayyan, Walid; Sabbah, Dima; **Abu Zarga, Musa**; Al-Qirim, Tariq; Al-Hiari, Yusuf; Abu Sheikha, Ghassan; Shattat, Ghassan "Synthesis and Preliminary Biological Evaluation of New Heterocyclic Carboxamide Models" *Letters in Drug Design & Discovery* **12**, 417-429. (2015).
85. Sweidan, Nuha I.; **Abu Zarga, Musa H.** "Two novel cardenolides from *Calotropis procera*" *Journal of Asian Natural Products Research* **17**, 900-907 (2015).
86. L Zerargui, Fatima; Boumerfeg, Sabah; Charef, Nouredine; Baghiani, Abderrahmane; Djarmouni, Meriem; Khennouf, Seddik; Arrar, Lekhmici; **Abu Zarga, Musa H.**; Mubarak, Mohammad S "Antioxidant Potentials and Xanthine Oxidase Inhibitory Effect of Two Furanocoumarins Isolated from *Tamus communis*" *Medicinal Chemistry (Sharjah, United Arab Emirates)* **11**, 506-513 (2015).
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