



SAHAR ABDEL-FATAH ZAKI

PROFESOR

PERSONAL INFORMATION	<p>Full Name: Sahar Abdel-fatah Zaki</p> <p>Affiliations: Professor</p> <p>Address: City of scientific Research and Technological applications</p> <p>Mobile No.: 01289625104</p> <p>E-mail: saharzaki@yahoo.com</p> <p>Important links: -</p>
EDUCATION	<p>(PhD. 2003 Cairo, MSc. 1995 Zagazig, Bachelor 1990 Zagazig)</p>
ACTIVITIES	<p>Scientific Activities</p> <p><u>Presentation (conferences, meeting. Invitations)</u></p> <ol style="list-style-type: none"> 1. Desouky Abd-El-Haleem and <u>Sahar Zaki</u>. (2002): Production of Poly(γ-Glutamic Acid) in a noval <i>Bacillus</i> sp. strain S-5. International symposium on biological polyesters. P. 77, September 22-26, 2002. Muenster, Germany (Poster). 2. <u>Sahar A. Zaki</u>, Desouky Abd-El-Haleem, Hassan Moawad and Mona Elsayed (2003): Application of PCR-RFLP, Rep-PCR and enzyme assays to determine heterogeneity among phenol degraders. US-Egypt Workshop on Genetic Engineering and Genomics, 5-8 December, 2003, Poster, at Mubarak City for Scientific Research and Technology Applications, New Borg El-Arab, Alexandria, Egypt (Poster). 3. Desouky Abd-El-Haleem, <u>Sahar Zaki</u>, Hany Hussein, Hassan Moawad and Mona Elsayed (2003) Acceleration of Sewage Wastewater Treatment Process Using Efficient Bacterial Inoculants. US-Egypt Workshop on Genetic Engineering and Genomics, 5-8 December, 2003, Poster, at Mubarak City for Scientific Research and Technology Applications, New Borg El-Arab, Alexandria, Egypt (Poster). 4. Desouky Abd-El-Haleem, <u>Sahar Zaki</u>, Gaadallah AbuElreesh and Mona

	<p>Elsayed (2003) A Universal Bioluminescent Bioreporter To Monitor Toxicants In Wastewater. US-Egypt Workshop on Genetic Engineering and Genomics, 5-8 December, 2003, Lecture, at Mubarak City for Scientific Research and Technology Applications, New Borg El-Arab, Alexandria, Egypt (Lecture 20 min).</p> <p>5. Desouky Abd-El-Haleem, Sahar Zaki and Gadallah Abu Elreesh (2004) Toxicity Assessment of Pollutants Using Genetically Modified Bioluminescent Bioreporter. Envi-Workshop On Liquid-Solid Wastes From Agricultural and Industrial Sources, Alexandria University 14-20 March 2004 (Lecture 20 min).</p> <p>6. Desouky Abd-El-Haleem, Sahar Zaki, Steven Ripp and Gary Sayler (2004): Genetically modified bioluminescent reporter to monitor nitrite toxicity. The Eighth world congress on biosensors, Gernada, Spain, 24-26 May 2004 (Poster).</p> <p>7. Reyed M. Reyed, Sahar Zaki, Desouky Abd-El-Haleem and Mona Elsayed (2006) Biochemical Characterization of spent culture supernatant-associated polysaccharides in Bacillus isolate BS14. The Third Conference of Role of Biochemistry Environment and Agriculture, Faculty of Agriculture, Cairo University, 3-4 May 2006. Full paper.</p> <p>8. Attendance in Training Course “How to Lead Science Park” 15-16 February, 2009. At Mubarak City for Scientific Research and Technology Applications. Alex. Egypt.</p> <p>9. Attendance in the 1st General Assembly Meeting of the North Africa and Middle East Science centers network (NAMES), at the Bibliotheca Alexandria on 2-3 November 2008.</p> <p>10. Sahar Zaki, Soha Farag (2008): Biodiversity Conservation from Heavy metal Polluted Environmental Sits. (presentation) in Contemporary Environmental Issues in Arid and Semi- Arid regions, 25-27 October 2008. University of Alex. Faculty of Science.</p> <p>11. Attendance in the conference, Science Supercourse Day, at the Bibliotheca Alexandria on 5-6 January 2009.</p> <p>12. Organizer: the workshop (Your Factory and the Environment “Industrial wastewater and Environmental laws”). 6-7 July, 2009. At Mubarak City for Scientific Research and Technology Applications. Alex. Egypt.</p> <p>13. Sahar Zaki, Desouky Abd-El-Haleem, Ehab Elhalew, and Marwa Mustafa</p>
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	<p>(2010): Molecular Detection of E. coli and P.aeruginosa in wastewater. Fourth Saudi Science ConferenceC Al-Madinah Al-Munawwarah, March 21 - 24 (poster).</p> <p>14. Sanaa s.kabeil, sawsan a. Abdel latif and sahar, a. Zaki (2010): screening for hydrolytic enzymes produced from indigenous bacterial isolates. June 7-11, Graz, Austria.</p> <p>15. Sahar Zaki, and Soha Farag (2010): Isolation and Molecular Characterization of Some Copper Biosorped Strains. 14-18 September, <i>Palacongressi</i>, Rimini, Italy. (Poster).</p> <p>16. Training Course in Environmental Management and Planning in cooperation with the National Management Institute, Egypt & Rutgers University Center For Executive Leadership in Gov, USA.27 June-1 July 2010.</p> <p>17. Sahar Zaki, Antimicrobial effect of biosynthesized nano-silver. Nanotechnology, Biotechnology and Spectroscopy Conference, at Cairo, Egypt. 1-3 March 2012. (Poster)</p> <p>18. G.M. Abu-Elreesh, Sahar Zaki and Desouky Abd-El-Haleem (2011): Detection, isolation and characterization of exopolysaccharide produced by a mutant Yeast, 4th Congress of European microbiologists, Geneva, Switzerland, June 26-30 2011.</p> <p>19. Sanaa S. kabeil, Sawsan A. Abdelatif and Sahar, A. Zaki (2012): Screening for hydrolytic enzymes produced from indigenous bacterial isolates. Biological Control of Fungal and Bacterial Plant Pathogens IOBC-WPRS Bulletin 78: 265-273. Full paper</p> <p>20. Sahar Zaki, M.F. Elkady, Soha Farag, Desouky Abd-El-Haleem, (2012): Utilization of Biosynthesized nano-silver as anti-microbialagent and its application for water treatment. Fifth Saudi Science Conference. Macca, April 16 - 18 (poster).</p> <p>21. Sahar Zaki (2012): Detection of Pathogenic Bacteria in Water and Food. 25-27 June, City of Scientific Research and Technological Applications, New Borg El-Arab, Alexandria, Egypt. (Lecture 30 minutes).</p>
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22. **Sahar Zaki** (2012) 1st Symposium of Advanced Material Sciences. 14 March. E-Just & City for Scientific Research and Technology Applications. Alex. Egypt. (Attend)

23. M.F. Elkady, **Sahar Zaki**, Soha Farag, and Desouky Abd-El-Haleem (2013): "Employment of some microbial biopolymers in absorbing basic yellow dye from aqueous solution". Published at the 11th International conference in chemistry and its role in development, Faculty of science, Mansoura University, March 11-15, Sharm El-Sheikh. Egypt "poster".

24. M.F. Elkady, **Sahar Zaki**, and Desouky Abd-El-Haleem (2013): "Influence of hydrogen ion concentration on the production of bio-synthesized nano-silver". The first international conference on new horizons in basic and applied science, September 21-23, Hurghada, Egypt "Poster".

25. **Sahar Zaki** (2013): Biofuel Production. 3rd February, City of Scientific Research and Technological Applications, New Borg El-Arab, Alexandria, Egypt. (Attend).

26. **Sahar Zaki**, Marwa eltarahony, Marwa elkady, and Desouky Abd-El-Haleem, (2014): The use of bioflocculant and bioflocculant producing *Bacillus mojavensis* strain 32A to synthesize silver nanoparticles. Microbial resource management for polluted marine environments and bioremediation, January 16-18, Hammamat, Tunisia. (poster).

27. M.F. Elkady, **Sahar Zaki**, and Desouky Abd-El-Haleem (2014): Influence of Hydrogen Ion Concentration on the Production of Bio-synthesized Nanosilver. International science Conference, May 22-23, Berlin, Germany. (Oral presentation).

28. **Sahar zaki**, (2014): Microbial Identification for the 21st century. City of scientific research and technological applications. 18-8-2015, Alex. Egypt.

29. Desouky Abd-El-Haleem, M.F. Elkady, **Sahar Zaki**, Soha Farag (2014): Kinetic, Equilibrium and Thermodynamic Assessment of Basic Yellow Dye Biosorption Using Egyptian Isolated Microbial Biopolymers. International science Conference, May 22-23, Berlin, Germany. (Oral

	<p>presentation).</p> <p>30. <u>Sahar Zaki</u> (2014): Data analysis and modeling using CoState statistical software. 1 desember, City of Scientific Research and Technological Applications, New Borg El-Arab, Alexandria, Egypt. (Attend).</p> <p>31. Gadallah Abu-Elreesh, Ayman Kamal, <u>Sahar Zaki</u>, and Desouky Abd-El-Haleem (2015): Employment of a genetically modified bioluminescent bioreporter to assess formation and toxicity of biosynthesized nanosilver. International conference (Imagin Nano), March,10-13, Spain.</p> <p>32. <u>Sahar Zaki</u> (2015): Biosynthesis and Environmental applications of Nanoparticles (Lecture 30 min) in Nanotechnology and its biological applications workshop 20 April, at Mubarak City of Scientific Research and Technological Applications, New Borg El-Arab, Alexandria, Egypt.</p> <p>33. <u>Sahar Zaki</u>, Desouky Abd-El-Haleem, Gadallah Abu Elreesh, Marwa eltarahony, Ayman Kamal (2015): Second International Conference On New Horizons In Basic And Applied Science. "Nanosilver applications in water treatment" Aug. 1-6, Hurghada, Egypt. (Oral presentation).</p> <p>34. Ayman Kamal, <u>Sahar Zaki</u>, Gadallah Abu Elreesh, Desouky Abd-El-Haleem (2015): Second International Conference On New Horizons In Basic And Applied Science. "Detection of Mycosynthesized Silver Nanoparticles using Bioluminuces bacteria and its interaction between microbialngenome and Protiens" Aug. 1-6, Hurghada, Egypt. (Poster presentation)</p> <p>35. <u>Sahar Zaki</u> (2015): The 3rd international conference of agriculture and food safety Oct. 19-20, Alexandria, Egypt. (Lecture 30 min.).</p> <p>36. <u>Sahar Zaki</u> (2016): Work Shop on Research Ethics: Basic and Principles. March 29th, Alexandria, Egypt. (Attend).</p> <p>37. Ayman Kamal, <u>Sahar Zaki</u>, and Desouky Abd El-Haleem (2017): International Egyptian CZECH conference on Nanotechnology Applications (IECCNA 2017) 10-11 Oct. Faculty of Agriculture Cairo University. "Green synthesis and characterization of copper and nickel nanoparticles using Zingiber officinale metabolites and their application in water treatment" (Poster Presentation).</p> <p>38. Marwa Eltarahony, <u>Sahar Zaki</u>, and Desouky Abd El-Haleem (2017): International Egyptian CZECH conference on Nanotechnology Applications (IECCNA 2017) 10-11 Oct. Faculty of Agriculture Cairo University."Antimicrobial effect of biosynthesized hematite nanoparticles</p>
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- against microbial pathogens" (Poster Presentation).
39. Ayman Kamal, **Sahar Zaki**, Desouky Abdelhaleem (2018): The 2nd International Conference of Biotechnology and Environment 28-30 March Alexandria, Egypt. "Intracellular Biosynthesis and characterization of Metallic Nanoparticles using yeast cell" (Poster Presentation).
40. Ayman Kamal, **Sahar Zaki**, Desouky Abdelhaleem (2018): Biological Synthesis and Characterization of Nano-adsorbent Magnetic iron for Phenol Decontamination. 20-22 April BioVision Alexandria. (Poster)
41. **Sahar Zaki** (2019): Application of Modern Environmental Biotechnology. Summer School at City of Scientific Research and Technological Applications, Burg ElArab, Alexandria Egypt. (Lecture 30 minutes)

Administrative Activities

اللجان المتخصصة:

- عضو نقابة العلميين 1991 الي الان.
- عضو نقابة العاملين بمدينة الابحاث العلمية 1999 الي الان.
- عضو مجلس معهد بحوث الهندسة الوراثية والتكنولوجيا الحيوية 2007 حتي الان.
- رئيس لجنة فتح المظاريف للمناقصة العامة بشأن تجهيزات المعامل 2015-2011
- رئيس لجنة الاستلام المبني لمشروع انشاء حجرات الباحثين بمعهد بحوث الهندسة الوراثية.
- عضو لجنة اعداد وتنظيم ومتابعة الناقصات والمزايدات بمعهد بحوث الهندسة الوراثية 2015-2013
- لجنة قسم التكنولوجيا الحيوية البيئية لفحص اوراق المتقدمين لشغل وظائف باحث مساعد في القسم 2011
- رئيس لجنة فحص وتقييم اوراق المتقدمين لشغل وظائف باحث مساعد في معهد

	<p style="text-align: center;">بحوث الهندسة الوراثية 2019</p> <p style="text-align: center;">لجنة تجميع طلبات المعاهد من الاجهزة الجديدة والاجهزة المطلوب رفع كفاءتها 2019.</p> <p style="text-align: center;">لجنة وضع كراسة الشروط والمواصفات للاجهزة الجديدة والاجهزة المطلوب رفع كفاءتها.</p> <p>Extra-curriculum Activities</p> <p style="text-align: center;">- قائم باعمال رئيس قسم التكنولوجيا الحيوية البيئية-2012حتى 2013.</p> <p style="text-align: center;">- رئيس قسم التكنولوجيا الحيوية البيئية 2013 - 2016.</p> <p style="text-align: center;">- رئيس قسم التكنولوجيا الحيوية البيئية 2016 - 2019</p>
<p style="text-align: center;">GRANTS & AWARDS</p>	<p><u>Funded research projects</u></p> <p style="text-align: center;">PI: Disinfection, deodorizing and improvement of water and treat Wastewater quality using biosynthesized nanosized silver. (STDF) 2011(finish)</p> <p>2-Co-PI: Purification of Water and Wastewater by Natural Biodegrad Bioflocclulants (STDF) (2009) (finished).</p> <p>3-Partener: A Ffield Portable Toxocity Tester Using Bacterial Bioluminicent. (ST 2012). (running)</p> <p>4-Partner: Genetically modified biosensor to detect nitrite in wastewater (US-E pint fund program) (2002) (Finished).</p>

	<p>5-Co-PI: Production of biopolymers from some Egyptian bacterial isolates. Funded by GEBRI (Finished).</p> <ul style="list-style-type: none"> • <p>Awards</p> <ul style="list-style-type: none"> • <u>Encourage State Prize of Egypt</u> in Advanced Technology (2007). • Award certificate from scientific Union (2008) • Award certificate in World water day (2010), clean water for a healthy world, 4th Egyptian world water festival, 20-22 March, 2010, Alexandria, Egypt. • Award certificate in a scientific publication (2010), City of Scientific Research and Technological applications. • Award certificate in a scientific publication (2012), City of Scientific Research and Technological applications. • Award certificate in a scientific publication (2013), City of Scientific Research and Technological applications.
<p>LIST OF PUBLICATIONS</p>	<p><u>1- Published Papers</u></p> <ol style="list-style-type: none"> 1. Assy M., Hussanien M. and <u>Zaki S.</u> (1995). Synthesis of some new pyranes and quinolines. Polish J. Chem., 69, 371-375 2. Khalil M., Farag S. and <u>Zaki S.</u> (1995). Hydrolysis of poly(acrylamide)-starch graft copolymer. Journal of Applied Polymer Science 57:335-342. 3. Desouky Abd El-Haleem, Hassan Moawad, Essam A. Zaki and <u>Sahar Zaki</u> (2002): Molecular characterization of phenol-degrading bacteria isolated from different Egyptian ecosystems. Microbial Ecology 43: 217-224 4. Usama Beshey, Desouky Abd El-Haleem, Hassan Moawad and <u>Sahar Zaki</u> (2002): Phenol biodegradation by free and immobilized <i>Acinetobacter</i>. Biotechnology letters 24: 1295-1297. 5. Desouky Abd El-Haleem, Usama Beshey, Abdou Abdelhamid, Hassan Moawad and <u>Sahar Zaki</u> (2002): Effects of mixed nitrogen sources on

biodegradation of phenol by immobilized *Acinetobacter* sp. strain W-17. African Journal of Biotechnology 2: 8-12.

6. Desouky Abd-El-Haleem, Zeinab Kheirallah, **Sahar Zaki** and Walla Abdelrahiem (2003): Multiplex-PCR & PCR-RFLP assays to monitor water quality against pathogenic bacteria. Journal of Environmental Monitoring, 2003, **5**, 865-

7. Abd El-Haleem D. , and **Sahar Zaki** (2006): Use of Bioluminescent Indicator *Acinetobacter* Bacterium for Screening and Characterization of Active Antimicrobial Agents. Journal of Microbiology and Biotechnology, 16 (11), 1706-712.

8. **Sahar Zaki**, Desouky Abd El-Haleem , Ashraf Abdulhamd, Hassan El and Gadallah AbuElreesh (2008):Influence of phenolics on the sensitivity of free immobilized bioluminescent *Acinetobacter* bacterium Microbiological Research 277-285.

9. **Sahar Zaki** (2006): Detection of meta- and ortho-cleavage dioxygenase in bacterial phenol-degraders. Journal of Applied Science and Environmental Mangement 10(3): 75-81.

10. Desouky Abd-El-Haleem, **Sahar Zaki**, Ashraf Abulhamd, Hassan Elbe and Gadallah Abu-Elreesh (2006): *Acinetobacter* bioreporter assessing heavy metals toxicity. J. Basic Microbiol. **46** (5), 339–347

11. Desouky Abd-El-Haleem, Steven Ripp, **Sahar Zaki**, And Gary S. Sayler(2007):Detection of Nitrate/Nitrite Bioavailability in Wastewater Using a luxCDABE- Based *Klebsiella oxytoca* Bioluminescent Bioreporter.J. Microbi Biotechnol volume 17: 1254–1261.

12. Ashraf T. Abuelhamd, Desouky A.M. Abd-El-Haleem; **Sahar A. Zaki**; Amara; Gadallah M.S. Aboelreesh(2007): Genetic engineering of *Schizosaccharomyces pombe* to produce Bacterial Polyhydroxyalkanotes. J. Ap Sci. Environ. Manage. Volume 11 (2) 83-90.

12. Desouky A.M. Abd-El-Haleem; Amro Amara, **Sahar A. Zaki**; Ashraf T Abuelhamd Gadallah M.S. Aboelreesh: Biosynthesis of biodegradable

polyhydroxyalkanoates biopolymers in genetically modified yeasts. International Journal of Environmental Sciences and Technology **4**: 513-520.

13. Reyed M. Reyed, **Sahar Zaki**, Desouky Abd-El-Haleem and Mona Elsayed (2006) Biochemical Characterization of spent culture supernatant-associated polysaccharides in *Bacillus* isolate BS14. The Third Conference of Research of Biochemistry Environment and Agriculture, Faculty of Agriculture, Cairo University, 3-4 May 2006.

14. Gamal F. Gad, Ramadan A. El-Domany, **Sahar zaki** and Hossam Ashour (2007): Characterization of *Pseudomonas aeruginosa* isolated from clinical and environmental samples in Minia, Egypt: prevalence, antibiogram and resistance mechanisms. Journal of Antimicrobial Chemotherapy **29**, 1010-1017.

15. **Sahar Zaki**, Desouky Abd-El-Haleem, Ehab ELhalew, and Marwa Mu (2009): Molecular and biochemical diagnosis of *Salmonella* in wastewater. J. Environ. Sci. Environ. Manage. Vol.13 (2) 83-92.

16. **Sahar Zaki** and Soha Farag (2010): Isolation and molecular characterization of some copper biosorbed strains. Int. J. Environ. Sci. Tech., **7**, 553-560.

17. Soha Farag and **Sahar Zaki** (2010): Identification of bacterial strains in tannery effluent and reduction of hexavalent chromium. Journal of Environmental Biology **31**(5), 877-882.

18. Sanaa S. kabeil, Sawsan A. Abdelatif and **Sahar, A. Zaki** (2012): Screening for hydrolytic enzymes produced from indigenous bacterial isolates. Biological Control of Fungal and Bacterial Plant Pathogens IOBC-WPRS Bulletin **78**: 265-270.

19. **Sahar Zaki**, Soha Farag, Gadallah Abu-Elreesh, Marwa Alkady, Mahmoud Nosier and Desouky Abd-El-Haleem (2011): Characterization of biofloculant produced by bacteria isolated from crude petroleum oil. Int. J. Environ. Sci. Tech

(4), Autumn 2011.

20. Sahar Zaki, Marwa el-kady, Desouky abdelhaleem (2011): Biosynthesis and structural characterization of silver nanoparticles from bacterial isolates. Materials Research Bulletin 46: 1571–1576.

21. Gadallah Abu-Elreesh, **Sahar Zaki**, Soha Farag, Marwa F. Elkady and Desouky Abd-El-Haleem (2011): " Exobiopolymer from polyhydroxyalkanoate-producing transgenic yeast". African Journal of Biotechnology 10(34): 6558-6566

22. M.F. Elkady , Soha Farag , **Sahar Zaki** , Gadallah Abu-Elreesh , Desouky Abd-El-Haleem (2011): *Bacillus mojavensis* strain 32A, a bioflocculant producing bacterium isolated from an Egyptian salt production pond. Bioresource technol. 8143-8151.

23. Sahar A. Zaki, Marwa F.Elkady, Soha Farag, and Desouky A.M. Abd-El-Haleem (2013): Characterization and flocculation properties of a carbohydrate bioflocculant from a newly isolated *Bacillus velezensis* 40B. Journal of Environmental Biology 34: 51-58.

24. _Soha Farag, **Sahar A. Zaki**, Marwa F.Elkady, and Desouky A.M. Abd-El-Haleem. Production and characteristics of a bioflocculant produced by *pseudomonas* sp. Strain 38 A (2014). Journal of Advances in Biology 4: 286-295.

25. **Sahar Zaki**, Marwa Alkady, Soha Farag, Desouky Abd El-Haleem (2013): Determination of the effective origin source for nanosilver particles produced by *E. coli* strain S78 and its application as antimicrobial agent. Materials Research Bulletin 47: 4286–4290.
26. **Sahar Zaki**, Ayman Kamal, Marwa Elkady, Gadallah Abu-Elreesh and Desouky Abd-El-Haleem (2014): Biosynthesis of silver nanoparticles using *Stenotrophomonas rhizophila* and its application as a disinfectant agent of water. European Journal of Experimental Biology. 4(1): 662-669.
27. **Sahar Zaki**, Marwa eltarahony, Marwa elkady, and Desouky Abd-El-Haleem, (2014): The use of bioflocculant and bioflocculant producing *Bacillus mojavensis* strain 32A to synthesize silver nanoparticles. Journal of nanomaterials.
28. Marwa eltarahony, **Sahar Zaki**, Zeinab Hassan Kheirallah, and Desouky Abdelhaleem, (2015): Isolation, Characterization, and Identification of Nitrate Reductase Producing Bacteria. International Journal of Recent Scientific Research. 6(11): 7225-7233.
29. Marwa eltarahony, **Sahar Zaki**, Zeinab Hassan Kheirallah, and Desouky Abdelhaleem, (2016): Bioconversion Of Silver And Nickel Ions Into Nanoparticles By *Achromobacter* Sp. Strain Mmt And Their Application In Wastewater Disinfection. International Journal of Recent Scientific Research. Vol. 7, Issue, 2, pp. 8838-8847, February, Online

30. Marwa ELtarahony, **Sahar Zaki**, Zeinab Kheiralla, Desouky Abd-El-Haleem (2015): Biogenic synthesis of Iron oxide nanoparticles via optimization of nitrate reductase Enzyme using statistical experimental design. Journal of advances biotechnology.
31. Ayman Kamal, **Sahar Zaki**, Gadallah Abu-Elreesh, Desouky Abd-El-Haleem (2016): Biosynthesis and characterization of silver nanoparticles using *Metschnikowia pulcherrima* strain 29a: their antibacterial, antifungal and bioluminescent toxicity effects against microbial pathogens. Eco. Env. & Cons. 22 (2); pp. 27-41.
32. Marwa Elkady, **Sahar Zaki**, Soha Farag, and Desouky Abd-El-Haleem (2017): Bioflocculation of Basic Dye onto Isolated Microbial Biopolymers, *Chem. Biochem. Eng. Q.*, 31 (3) 209–224.
33. Ayat E. Abd El-Salam, Desouky Abd-El-Haleem, Amany S. Youssef, Sahar Zaki, Gadallah Abu-Elreesh, Samy A.El-Assar (2017): Isolation, characterization, optimization, immobilization and batch fermentation of bioflocculant produced by *Bacillus aryabhatai* strain PSK1 Journal of Genetic Engineering and Biotechnology, 15 (2) 335-344.
34. Marwa Eltarahony , **Sahar Zaki**, Zeinab Kheiralla , Desouky Abd-El-haleem (2018): NAP Enzyme recruitment in simultaneous bioremediation and

nanoparticles synthesis. Biotechnology reports, 18 1-10.

35. Marwa Eltarahony , Sahar Zaki, Marwa elkady , Desouky Abd-El-haleem (2018): Bio-synthesis, characterization of some combined nanoparticles, and its biocide potency against broad spectrum of pathogens. J. nanomaterials.

36. Marwa Eltarahony , Sahar Zaki, Desouky Abd-El-haleem (2018): Concurrent zero/one dimensions, spherical, rod, needle and wire shaped CuO nanoparticles synthesized by Proteus mirabilis 10B. J. nanomaterials .

37. Marwa Eltarahony , **Sahar Zaki**, Zeinab Kheiralla , Desouky Abd-El-haleem (2019): Study on the antagonistic potential of biosynthesized hematite nanoparticles in water and wastewater treatment. Clean, Soil Air water 1-10.

38. Sahar A. Zaki, Marwa Moustafa Eltarahony, Desouky A. Abd-El-Haleem (2019): Disinfection of water and wastewater by biosynthesized magnetite and zerovalent iron nanoparticles via NAP-NAR enzymes of Proteus mirabilis 10B. Environmental Science and Pollution Research
<https://doi.org/10.1007/s11356-019-05479-2>.

39. Hanim Mahmoud, Gadallah Abu-Elreesh, **Sahar Zaki**, Amany S. Youssef, Mervat F. El-Sherif, Samy A. El-Assar¹ and Desouky Abd-El-Haleem. (2019): Improvement of sand consolidation, compressive strength of mortar and absorption reduction of water using CaCO_3 – precipitating bacteria. BIOSCIENCE RESEARCH, 16(3): 000-000.
40. In Vitro effect of a novel protease inhibitor cocktail on *Toxoplasma gondii* tachyzoites. Submitted
41. Ayman Kamal¹, Sahar Zaki*¹, Hassan Shokry^{2,3}, Desouky Abd-El-Haleem¹ (2019): Using Ginger Extract for Synthesis of Metallic Nanoparticles and their Applications in water Treatment. Submitted
42. Esmail M. El-Fakhrany, Gadallah M. Abou-Elreesh, Elbadawy A. Kamoun, Sahar Zaki, and Desouky A. Abd-El-Haleem. (2020) In Vitro assessment of the bioactivities of sericin protein extracted from a bacterial silk-Like biopolymer. RSC Advances, 10, 5098-5107.
43. Ahmed Abo Elazm, **Sahar Zaki**, Wafaa Abd El-Rahim, Mohammed Zakaria Sedik, (2019): BIOREMEDIATION OF HEXVALENT CHROMIUM WIDELY DISCHARGED IN LEATHER TANNING EFFLUENTS.

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