

CURRICULUM VITAE



Salah Salman, Dr. Eng.

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◆ PERSONAL DETAILS

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| Nationality: | Egyptian | |
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◆ EDUCATION

- ✚ PhD in Materials Science and Engineering, March 2010, Nagoya University, Nagoya, Japan.
- ✚ M.Sc. Materials Science and Engineering, March 2007, Nagoya University, Nagoya, Japan.
- ✚ B.Sc., May 1999, Mining & Metallurgy Engineering, Al-Azhar University, Cairo, Egypt.
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◆ EMPLOYMENT

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| September 2022 Present | Professor, Faculty of Engineering, Mining & metallurgy Eng. Dept., Al-Azhar University, Cairo, Egypt. |
| March 2022 September 2022 | Associate Professor, Faculty of Engineering, Mining & metallurgy Eng. Dept., Al-Azhar University, Cairo, Egypt. |
| April 2021- March 2022 | Visiting Associate Professor, Tokai National Higher Education and Research System, Nagoya University |
| June 2017- March 2021 | Associate Professor, Faculty of Engineering, Mining & metallurgy Eng. Dept., Al-Azhar University, Cairo, Egypt. |
| May 2016 – June 2017 | Assistant Professor, Faculty of Engineering, Mining & Petroleum Eng. Dept., Al-Azhar University, Cairo, Egypt. |
| May 2011 – March 2016: | Designated Assistant Professor, Institute of Materials and Systems for Sustainability, Nagoya University, Japan. |
| Nov. 2010 – May 2011 | Assistant Professor, Faculty of Engineering, Mining & Petroleum Eng. Dept., Al-Azhar University, Cairo, Egypt. |
| April 2010 - Oct. 2010 | Visiting researcher, EcoTopia Science Institute, Nagoya University, Japan. |

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| Oct. 2009 – March 2010 | Research Assistant, Nagoya University, Japan |
| June 2008 – March 2009 | Research Assistant, Nagoya University, Japan |
| 2001 | Assistant Researcher, Faculty of Engineering, Mining & metallurgy Eng. Dept., Al-Azhar University, Cairo, Egypt. |
| 2000 | Lab Spec., Tabbin institute for metallurgical studies, Cairo, Egypt. |
| 1999 | Metallurgical Engineer, Egyptian Co. for metal industries, Cairo, Egypt. |

◆ TEACHING EXPERIENCE

✚ Graduate students

Mining & Petroleum Industry, Materials Science and Engineering - Extractive Metallurgy
- Chemical Engineering –

✚ Postgraduate student

✚ Advanced Extractive Metallurgy - Corrosion - Corrosion protection

◆ MAJOR RESEARCH FIELD

✚ Extractive metallurgy, Material science and engineering, Surf-Interface Engineering –
Biomaterials, Metal Electrochemistry - Corrosion Protection, Hydrometallurgy - Physical metallurgy

◆ RESEARCH PROJECTS

✚ Research project about self-assembled monolayer (SAM) on AZ31 Mg alloy “KAKEMHI”
✚ Research fund about green coating "JFE 21st "Century Foundation".

◆ PERSONAL SKILLS

- ✚ Organizational leadership skill
- ✚ Communication and contact skills
- ✚ Teaching, Research and Supervision skills
- ✚ Using of many experiments' instruments related to metallurgy and electrochemistry
- ✚ Using of many instruments for metal characterization ex: scanning electron microscope; SEM, Energy-dispersive X-ray spectroscopy; EDX, and X-ray diffraction; XRD, X-ray Photoelectron Spectroscopy; XPS and etc.
- ✚ skills on several electrochemical instruments for traditional and advanced applications

◆ **LANGUAGE PROFICIENCY**

- ✚ Arabic: fluent, written and spoken (native tongue).
- ✚ English: fluent, written and spoken.
- ✚ Japanese: Good spoken

◆ **AWARDS & SCHOLARSHIPS**

- ✚ JSPS Bridge fellowship, Yokohama national University, Yokohama, Japan
- ✚ Scientific Excellence Award from the Faculty of Engineering, Al-Azhar University 2021
- ✚ Scientific Mission to Nagoya University, awarded by Ministry of Higher Education and Scientific Research of Egypt with cooperation with Japan International Cooperation Agency (JICA) 2021
- ✚ Best presentation award in the 2015 2nd International Conference on Advanced Materials, Mechanics and Structural Engineering (AMMSE 2015) September 18-20, 2015, Je-ju Island, South Korea.
- ✚ (2011) 5 years Research fund in EcoTopia Science Institute, Nagoya University, Japan
- ✚ Best poster presentation Award at the 118th Spring Meeting of the Japan Institute of Light Metals (May 22, 2010) (co-author).

✚ (2003- 2010) Japanese Government (Monbukagakusho) Scholarship (in Nagoya university).

✚ 2005-2010: RA and TA Awards throughout postgraduate study

✚ (2001) High technology of metal work's Training Course, awarded by the Japan International Cooperation Agency (JICA)

◆ **SCIENTIFIC ORGANIZATION MEMBERSHIP**

✚ International Society of Electrochemistry

✚ JSPS Alumni Association

✚ Egyptian Engineers Syndicate

◆ **EDITORIAL AND REVIEW ACTIVITIES**

✚ Editor-in-chief of Journal of Al-Azhar University Engineering Sector

Reviewer at many international journals such as:

✚ Acta biomaterialia

✚ Journal of the Taiwan Institute of Chemical Engineers

✚ Applied Physics A

✚ Journal of Basic and Applied Research

✚ SN Applied Sciences

✚ Chemical Engineering Journal

✚ Journal of Material Science and Technology Research

◆ **EXTRACURRICULAR ACTIVITIES**

✚ Volunteer work: Founder and Chairman of "Bena Charitable Foundation"; Non-Profit Organization for social development in Egypt.

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LIST OF PUBLICATIONS

Book chapters

1. **Salman S.**, Gouda M.K. (2023), Biodegradable Mg Alloys for Orthopedic Implant Materials. In: Ali, Makhlof (Eds.) Handbook of Biodegradable Materials, Springer-Nature.
https://doi.org/10.1007/978-3-030-83783-9_40-1
2. **Salman S.**, Gouda M.K. (2022) Sealing Treatments for Electrochemical Conversion Coatings. In: Saji V.S., Sankara Narayanan T.S.N., Chen X. (eds) Conversion Coatings for Magnesium and its Alloys. Springer International Publishing.
https://doi.org/10.1007/978-3-030-89976-9_24
3. **S A Salman**, M. Okido, Anodization of magnesium (Mg) alloys to improve corrosion resistance, in: G-L Song (Eds.), Corrosion prevention of magnesium alloys, Woodhead Publishing, Cambridge, 2013, pp. 197-231.
<https://doi.org/10.1533/9780857098962.2.197>

Selected Journals Articles

1. Abdul-Majid M. Shamroukh, Salah Salman, Amr Basuony ElDeeb, Mohammed Gouda, William Berends, Waleed Abdul-Fadeel, and Gamal Abdel-Jaber, Challenges in Energy Savings in Aluminium Reduction Cell by Improving the Anode Design and Inserts, Volume 19 – 73, 2024
<https://doi.org/10.21608/aej.2024.249663.1481>

2. Amr B. ElDeeb, Vyacheslav N. Brichkin, Salah A. Salman, Mohammed K. Goda, Gamal S. Abdelhaffez, Cost-effective and Eco-friendly Extraction of Alumina Based on Kaolin Ore Using Thermo-chemically Activated Lime-sinter Process, Journal of Al-Azhar University Engineering Sector, 19 - 69, 2023.
<https://doi.org/10.21608/aej.2023.235500.1423>
3. Ahmed Wahba; Mosaad Sadawy; Mohammed Gouda; hassan metwaly; Salah Salman, Effect of Post-Treatments on Corrosion and Electrochemical Properties of Anodized Al 2024-T3 Alloy, Journal of Petroleum and Mining Engineering, 25-1, 2023, Pages 1-104.
<https://doi.org/10.21608/jpme.2023.195590.1155>
4. **S. A. Salman** and M. K. Gouda, Characterization and corrosion behavior of vanadium-based conversion coating on AZ31 magnesium alloy, Materials today Proceedings, Volume 62, Part 2, 2022, Pages 611-614.
<https://doi.org/10.1016/j.matpr.2022.03.618>
5. Mohammed Gouda, **Salah Salman**, Saad Ebied, Improvement in the microhardness and corrosion behaviour of Ti-14Mn biomedical alloy by cold working, Materials Research Express Journal, 9-1, 2022.
<https://iopscience.iop.org/article/10.1088/2053-1591/ac4b77>
6. Gouda, M.K., **Salman, S.A.**, Ebied, S., Gepreel, M.A.H., Chiba, A., Biocompatibility and corrosion resistance of low-cost Ti-14Mn-Zr alloys, Journal of Materials Research, 2021, 36(24), pp. 4883-4893.
<https://doi.org/10.1557/s43578-021-00441-w>
7. El-Fattah, H.A., Gouda, M.K., **Salman, S.**, Elsayed, A., The effect of eggshell as a reinforcement on the mechanical and corrosion properties of mg-zn-mn matrix composite, Acta Metallurgica Slovaca, 2021, 27(4), pp. 180-184.

<https://doi.org/10.36547/ams.27.4.1088>

8. T. Usami, **S. A. Salman**, K. Kuroda, M. K. Gouda, A. Mahdy, and M. Okido, Synthesis of Cobalt-Nickel Nanoparticles via a Liquid-Phase Reduction Process, Journal of Nanotechnology 2021(1):1-7.

<https://doi.org/10.1155/2021/9401024>

9. AMM Shamroukh, **SA Salman**, W Berends, WA Abdel-Fadeel, Energy Saving in Hall-Héroult Cell by Optimization of Anode Assembly Design, Light Metals 2020, 1267-1277.

https://doi.org/10.1007/978-3-030-36408-3_174

10. R. M. Hassan, S. M. Ibrahim, **S. A. Salman**, H. D. Takagi, A Promising Water-Soluble Synthetic Polymer of High Efficiency and Low Cost as Inhibitor for Inhibition of Metals Corrosion: Inhibition of Magnesium Corrosion by Poly (Ethylene Glycol) in Acidic Media, Journal of Bio- and Tribo-Corrosion, 2019.

<https://doi.org/10.1007/s40735-019-0292-y>

11. **SA Salman**, Sangjae Kim, Kensuke Kuroda, Masazumi Okido, Influence of Amine Additives on the Electrodeposition of Aluminum from AlCl₃-Dimethyl Sulfone Electrolytes, Light Metals 2019, p. 115.

https://doi.org/10.1007/978-3-030-05864-7_16

12. K Nishinaka, **SA Salman**, K Kuroda, M Okido, Characterization and Structure Analysis of the Anodic Film Formed on AZ31 Mg Alloy in KOH Alkaline Solution with Various Additives, Key Engineering Materials, 786, p. 159, 2018.

<https://doi.org/10.4028/www.scientific.net/kem.786.159>

13. **S.A. Salman**, Study on the anodizing of AZ31 magnesium alloys in ethanol solution, Advanced Materials, Mechanical and Structural Engineering, 2016, p. 135-138.

<https://doi.org/10.1201/b19934-28>

14. **S. A. Salman**, K. Kuroda, M. Okido, Effect of Anodizing Time on the Surface Morphology and Corrosion Resistance of AZ31 Magnesium Alloy, *Science of Advanced Materials*, 01/2015; 7(1).

<https://doi.org/10.1166/sam.2015.2082>

15. **S. A. Salman**, A. Nagata, K. Kuroda, M. Okido, Deposition of Self-Assembled Monolayer on Vanadate Conversion Coated AZ31 Mg Alloy, *Mater. Sci. Forum*, 783-786, pp. 1482-1487(2014).

<https://doi.org/10.4028/www.scientific.net/msf.783-786.1482>

16. **Salman S.A.**, Akira N., Kuroda K., Okido M., Formation of Self-Assembled Monolayer on Cerium Conversion Coated AZ31 Mg Alloy. In: Alderman M., Manuel M.V., Hort N., Neelameggham N.R. (eds) *Magnesium Technology 2014*, p. 341-344

<https://doi.org/10.1002/9781118888179.ch65>

17. **S. A. Salman**, T. Usami, K. Kuroda, M. Okido Synthesis and Characterization of Cobalt Nanoparticles Using Hydrazine and Citric Acid, *Journal of Nanotechnology*, *Journal of Nanotechnology*, 2014 p. 1-6.

<https://doi.org/10.1155/2014/525193>

18. Yun-Il Choi, **S. A. Salman**, K. Kuroda, M. Okido, Synergistic Corrosion Protection for AZ31 Mg alloy by Anodizing and Stannate Post-sealing Treatments, *Electrochimica Acta*, 2013, p. 313-319.

<https://doi.org/10.1016/j.electacta.2013.03.001>

19. **S. A. Salman**, K. Kuroda, M. Okido, Preparation and characterization of hydroxyapatite coating on AZ31 Mg alloy for implant applications, *Bioinorganic Chemistry and Applications*, 2013, p. 1-6.

<https://doi.org/10.1155/2013/175756>

20. **Salman S.A.**, Kuroda K., Okido M., Formation of Vanadate Conversion Coating on AZ31 Magnesium Alloy. In: Hort N., Mathaudhu S.N., Neelameggham N.R., Alderman M. (eds), Springer, Cham, Magnesium Technology 2013, p. 183-187.
<https://doi.org/10.1002/9781118663004.ch30>
21. Yun-Il Choi, **Salah Salman**, K. Kuroda, M. Okido, Improvement in corrosion characteristics of AZ31 Mg alloy by square pulse anodizing between transpassive and active regions, Corrosion Science, Volume 63, p. 5–11, 2012.
<https://doi.org/10.1016/j.corsci.2012.02.010>
22. **S. A. Salman**, M. Okido, Self-assembled monolayers formed on AZ31 Mg alloy, Journal of Physics and Chemistry of Solids, Volume 73, 7, p. 863, 2012.
<https://doi.org/10.1016/j.jpics.2012.02.018>
23. **Salman S.A.**, Kuroda K., Saito N., Okido M. (2012) Effect of Sn⁴⁺ Additives on the Microstructure and Corrosion Resistance of Anodic Coating Formed on AZ31 Magnesium Alloy in Alkaline Solution. In: Mathaudhu S.N., Sillekens W.H., Neelameggham N.R., Hort N. (eds), Springer, Cham, 2102, Magnesium Technology 2012, p. 241-245.
https://doi.org/10.1007/978-3-319-48203-3_45
24. **S. A. Salman**, R. Ichino and M. Okido, a comparative electrochemical study of AZ31 and AZ91 magnesium alloy, International Journal of Corrosion, 2010, p. 1-7
<https://doi.org/10.1155/2010/412129>
25. Qingming Liu, Debi Zhou, Kazuaki Nishio, **Salah Salman**, Ryoichi Ichino, Masazumi Okido, Effect of reaction driving force on copper nanoparticle preparation by the liquid phase reduction method, 2009, MRS Proceedings.

<https://doi.org/10.1557/proc-1207-n07-02>

26. **S. A. Salman**, R. Mori, R. Ichino, and M. Okido, Effect of Anodizing Potential on the Surface Morphology and Corrosion Property of AZ31 Magnesium Alloy, MATERIALS TRANSACTIONS, 2010, 6, p. 1109-1113.

<https://doi.org/10.2320/matertrans.m2009380>

27. **S. A. Salman**, R. Mori, R. Ichino, and M. Okido, Improvement of corrosion resistance of AZ31 Mg alloy by anodizing with co-precipitation of cerium oxide, 2009, Transactions of Nonferrous Metals Society of China, 2009, 4, p. 883-886.

[https://doi.org/10.1016/S1003-6326\(08\)60370-2](https://doi.org/10.1016/S1003-6326(08)60370-2)

28. **S. A. Salman**, R. Ichino and M. Okido, Influence of calcium hydroxide and anodic solution temperature on anti-corrosion property of anodising coatings formed on AZ31 Mg alloys, Surface Engineering, 24, 3, 2008.

<https://doi.org/10.1179/174329408x282578>

29. **S. A. Salman**, R. Ichino and M. Okido, Production of alumina-rich surface film on AZ31 magnesium alloy by anodizing with co-precipitation of nano-sized alumina, Materials Transactions, 49, 5, p. 1038-1041 2008.

<https://doi.org/10.2320/matertrans.mc2007111> .

30. **S. A. Salman**, Ryoichi Ichino, and Masazumi Okido. Development of Cerium-based Conversion Coating on AZ31 Magnesium Alloy, Chem. Lett., 36, 8, p. 1024-1025 2007.

<https://doi.org/10.1246/cl.2007.1024>

Selected conferences

1. AM. M. Shamroukh, Amr B. Eldeeb, **S. A. Salman** and M. G. Farghly, Sustainable Green application of Kaolin Ore for Alumina Recovery Based on Lower Temperatures Sintering process, Light Metals 2025.
2. **S. A. Salman** and M. K. Gouda International conference on engineering materials, metallurgy and manufacturing (ICEMMM 2021)16-17, December 2021, Characterization and corrosion performance of vanadium-based conversion coating on AZ31 magnesium alloy
3. **S. A. Salman**, Nagahiro Saito, INTERFINISH2020 20th world congress September 6-8 2021, High temperature cerium conversion coatings on AZ31 magnesium alloy.
4. AMM Shamroukh, **SA Salman**, W Berends, WA Abdel-Fadeel, Energy Saving in Hall-Héroult Cell by Optimization of Anode Assembly Design, Light Metals 2020, 1267-1277
5. **S. A. Salman**, 13th International Conference on Mining, Petroleum and Metallurgical Engineering, Nasr Academy-Suez, Egypt 25-27 October 2019.
6. **Salman S.A.**, Kim S., Kuroda K., Okido M, the 142st TMS Annual Meeting and Exhibition, TMS 2019, Texas, San Antonio, USA.
7. A Shamroukh, D Hassen, A Ali, **SA Salman**, GT Abdel-Jaber, 4th international conference welding and failure analysis of engineering materials, 2018, Aswan, Egypt
8. K. Nishinaka, **S. A. Salman**, K. Kuroda and M. Okido, The International Conference on Materials Science and Engineering: Recent Advances and Challenges (*Icmse-Rac 2018*), March, 2018, Burg El `Arab, Egypt.
9. **S. A. Salman** et al, international conference on materials and systems for sustainability, Sep. 2017, Nagoya, Japan
10. MO Kim Sangjae, **Salah Salman**, Yanjie Liang, Kensuke Kuroda, 19th Interfinish World Congress & Exhibition (Interfinish 2016)

11. **S. A. Salman**, Oguri Tetsuya, K. Kuroda and M. Okido, the 9th International Conference on advanced materials (THERMEC 2016), May 29 – June 3, 2016, Graz, Austria.
12. **S. A. Salman**, The 2015 2nd International Conference on Advanced Materials, Mechanics and Structural Engineering (AMMSE 2015) September 18-20, 2015, Je-ju Island, South Korea.
13. **S. A. Salman**, K. Nishinaka, K. Kuroda and M. Okido, 1st International Conference on Applications of Surface Science (ICASS) 27 - 30 July 2015, Shanghai, China.
14. **S. A. Salman**, K. Hikida, K. Nishinaka, K. Kuroda and M. Okido, ICMCTF'15 - International Conference on Metallurgical Coatings & Thin Films. 20–24 April 2015. San Diego, United States
15. **S. A. Salman**, N. Akira, K. Kuroda, M.Okido, TMS 2014 143rd ANNUAL MEETING & EXHIBITION, San Diego, California; Feb.2014.
16. **S. A. Salman**, A. Nagata, K. Kuroda, M. Okido, THERMEC'2013, Dec.Las Vegas, USA(2013)
17. **S. A. Salman**, K. Kuorda, M. Okido, The 1st International Conference on Surface Engineering (ICSE2013), Nov, Busan (Korea)(2013).
18. **S. A. Salman**, K. Kuroda, M. Okido, Magnesium Technology 2013, Proceedings of the 142st TMS Annual Meeting and Exhibition, TMS 2013, March, 3-7, 2013, Texas, San Antonio, USA.
19. Y. Choi, **S. Salman**, K. Kuroda, and M. Okido, The 29th International Korea-Japan Seminar on Ceramics, Nov. 21-24, 2012, Daegu, Korea
20. Y. Choi, **S. Salman**, K. Kuroda, and M. Okido, Pacific Rim Meeting on Electrochemical and Solid-State Science [PRiME], Honolulu, October 7-12, 2012.

21. **S. A. Salman**, Y.I. Choi, K. Kuroda, M. Okido, 9th International Conference on Magnesium Alloys and their Applications Proceedings, July 8-12, 2012, Vancouver, Canada.
22. **S. A. Salman**, K. Kuroda¹, N. Saito, M. Okido, Magnesium Technology 2012, Proceedings of the 141st TMS Annual Meeting and Exhibition, TMS 2012, Marc, 11-15, 2012, Orlando, FL, USA.
23. Masazumi Okido, **Salah Salman**, THERMEC 2011, Quebec City, Canada, August 1 – 5, 2011.
24. **S. A. Salman**, R. Ichino and M. Okido. Spring ISE Meeting, Columbus, OH, USA, May 2 - 5, 2010.
25. Qingming Liu, Debi Zhou, Kazuaki Nishio, **Salah Salman**, Ryoichi Ichino and Masazumi Okido, MRS Proceedings 2009: 1207-N07-02 (6 pages)
26. **S. A. Salman**, R. Ichino and M. Okido. Ninth International Symposium on Biomimetic Materials Processing (BMMP-9), Nagoya, Japan, January 20-23, 2009.
27. **S. A. Salman**, R. Ichino and M. Okido, 17th World interfinish congress & exhibition, Busan, Korea, June 16-19, 2008.
28. **S. A. Salman**, R. Ichino and M. Okido, The first Japan-Egypt international symposium on science and technology, Tokyo, Japan, June 8-10, 2008.
29. **S. A. Salman**, R. Ichino and M. Okido. Seventh International Symposium on Biomimetic Materials Processing (BMMP-8), Nagoya, Japan, January 21– 24, 2008.
30. **S. A. Salman**, R. Ichino and M. Okido. Metals Processing and Manufacturing Conference (MPM), Cairo, Egypt, November 19-22, 2007.
31. **S. A. Salman**, R. Ichino and M. Okido. 58th Annual Meeting of the International Society of Electrochemistry, Banff, Canada, September 9-14, 2007.

32. **S. A. Salman**, R. Ichino and M. Okido. First Afro-Asian Conference on Advanced Materials Science and Technology, Cairo, Egypt, 13-16 November, 2006.
33. Jian-guang, Takeshi Okamoto, **S. A. Salman**, Ryoichi Ichino and Masazumi Okido. Spring ISE Meeting, Singapore, April 17 - 20, 2006.