**SCIENTIFIC PUBLICATIONS**

1- The study of sand-bind and sand additive of mechanical properties of molding sand. (**Zanko journal. No.2,1989,pp.62**)

2- Study of pre-compression stresses on the mechanical properties of low carbon steel. ( **The first scientific conference of Tikrit university ,21-23/12/1991.**)

3- Using of Aluminum and its alloys in production of some parts of textile machines. (**Zanko journal. No.4 vol.2,1991 pp.8**)

4- An investigation of mould by (Aurthrmah) sand for preparation of mould by using jolt squeeze molding machine. (**Special issue proceeding of second scientific conference of salahaddin university-Erbil 24-25 April 1993 .**

5- Improve the mechanical properties of brass alloys by diffusion method.( **journal of education No.411/15.19**94)

6**-**The corrosion of materials by rough particles in fluids.(**Zanko journal. No.1,vol.7 1995, pp.**51)

**7**- Theeffect of silicon rate and hot working on the graphitation of white cast Iron .(**Zanko journal. No.1 vol. 9 ,1997 pp.5**).

8- The effect of impact process by steel ball on mechanical properties of different material . **The first scientific conference of dohuk university 27 – 29 April , 1999.**

**9-** The effect of abrasive grain size of sand in liquid on abrasive wear rate of the metal surface. (**journal of Zanko of sulaimani . No.2 vol.2,1999 pp.31**)

 .

10- Diffusion coating on a low carbon steel and its oxidation behavior inside I.C engines emission(**Zanko journal. No.2 vol.16,2004 pp.5**).

 11- The influence of pre aging on some mechanical properties of heat treatment automobile body sheet Al alloy (6063). (**journal of engineering andtechnology, . No.5 vol.24,2005**).

12- Changing the design of screen shaft with accessories of via nova Asphalt plant (**Zanko journal. No.2 vol.17,2005 pp.119**).

13- Effect of cold work on the precipitation process in Al alloy(6063). (**journal of Zankosulaimani . No.1 vol.9A,2006 pp.31**).

14- The effect of gage length value in tensile test specimens on the mechanical properties of metal.**(proceeding of the international conference onmodeling and simulation)(28- 30August ,2006,konya, turkey, paper No. A118, pp.369)**

15- Study of mechanical properties of Al-Zn-Mg alloy welds. **The sixth Jordanian international mechanical Engineering conference .22-24/10/2007, Jordon.**

16- Relation between pre straining before welding ,joint design ,and microstructure in welding of 7020 Al alloy.**Alrafidain engineering journal –university of Mosul ,No.3 ,vol.16 ,pp.96 ,2008 .**

17- The effect of tool tilt ingles and welding speed on mechanical and macrostructure properties Accepted for published in (of friction stir welded Al alloy **Zanko journal No.5 vol.21,2010**) .

**.**

18- Characterization of microstructure and mechanical properties of FSW Al alloy 7075 at T6 and T9 Tempers ,**International conference on modeling and simulation 1-3 December 2009**

 **(AMSE-09 INDIA).**

19- The effect of process parameters on microstructural and mechanical properties of friction stir welded Al alloy 7020 at T6,T9 Tempers. **International conference on modeling and simulation 1-3 December 2009 (MS/AMSE4-O9 INDIA).**

20-Thermo mechanical treatment of 7020 Al alloy, **- International conference on modeling and simulation .15-17 JULY -BARSHELONA . (AMSE-10 BARSHELONA).2010**

**21-**charpy impact value of friction stir welded 7020 and 7075 Al alloys at different tool rotation and transverse speed .**Eng .and technology journal-university of technology ,vol.28 ,No.15 ,2010**

22-Effect of sand impact on the erosion behavior of HDPE and PVC pipes, **Journal of Asian transaction on Engineering ,volume 1 ,issue 4 ,11th September, page 36-42 ,2011 .**

**23-**The effect of percentage of carbon loading on the properties of HDPE 100 **zanco journal No.2 issue 24 2012.**

**24-**Effect of tool geometry on microstructure and mechanical properties and microstructure of friction stir welded Al alloy 2011 T6. **International conference WASET.28-29** August – Malaysia, 2012.

**25-**: “investigation of mechanical properties of shielded metal arc welding and friction stir welding in 7020-T6 Al alloy” **– international 13th European conference on spacecraft structures, materials and environmental testing, 1-4 April,Braunschweig,Germany.SSMET 2014.**

**26-**Comparasion of shear properties for high density polyethylene (HDPE) and polyvinyl chloride (PVC)polymer**, published in eng.and technology journal ,university of technology , Baghdad, Iraq. Vol.33,No.9,2015.**

 **27-**Reinforcement and processing on the machinability and mechanical properties of aluminum matrix composites**, published in in journal of materials research and technology, ELSEVIER ,vol.8,No.5 ,pp.4766-4777,2019.** <https://doi.org/10.1016/j.jmrt.2019.08.023>

 **28-The Effectiveness of Reinforcement and Processing on Mechanical Properties, Wear**

**Behavior and Damping Response of Aluminum Matrix Composites *,*published in in journal of** High Temperature Materials. Processing by DE GRUYTER vol.38: pp.927-939 ,2019 <https://doi.org/10.1515/htmp-2019-0039>

**29-influence of reinforcement and processing on aluminum matrix composites modified by stir casting route published in journal of advanced composites ,vol.28:1-8,2019**  Processing by **SAGE .**

 <https://doi.org/10.1177/2633366X19896584>

 **30-Acomparative study of the impact of stirrer design in the stir casting route to produce metal matrix composite** **published in in journal of** Advances in Materials Science and Engineering, Volume 2021 |Article ID 4311743 | <https://doi.org/10.1155/2021/4311743>, **Published**23 Sep 2021

31-Areview paper on bobbing tootl friction stir weldingBtfsw and metal inert gas welding of various materials , journal of design engineering, vol2021 , issue 6 ,pp.6597-6606, <http://www.thedesignengineering.com/index.php/DE/article/view/4141>

32- An overview of the effect of stirrer design on the mechanical properties of

Aluminium Alloy Matrix Composites fabricated by stir casting, ZANCO Journal of Pure and Applied Sciences

The official scientific journal of Salahaddin University-Erbil

https://zancojournals.su.edu.krd/index.php/JPAS

ISSN (print ):2218-0230, ISSN (online): 2412-3986,DOI: http://dx.doi.org/10.21271/zjpas, 2022, 34 (1): 18-35

33- Study the effect of stirrer design on the stirring performance of ceramic particle reinforcements in stir casting of Aluminum Matrix Composite First Published May20-2022,jornal of reinforced plastics and composite. [Volume 42, Issue 1-2](Volume%C2%A042%2C%C2%A0Issue%C2%A01-2) <https://doi.org/10.1177/07316844221101579>

<https://doi.org/10.1177/0731684422110157>

34-A review on manufacturing the polymer composites by friction stir processing

[European Polymer Journal](https://www.sciencedirect.com/journal/european-polymer-journal) ,[Volume 178](https://www.sciencedirect.com/journal/european-polymer-journal/vol/178/suppl/C%22%20%5Co%20%22Go%20to%20table%20of%20contents%20for%20this%20volume/issue), 5 September 2022, 111495

<https://doi.org/10.1016/j.eurpolymj.2022.111495> .

35-Influence of Friction Stir Welding Process on the Mechanical Characteristics of the Hybrid Joints AA2198-T8 to AA2024-T3, [Advances in Materials Science and Engineering](https://www.hindawi.com/journals/amse/), Volume 2022 | Article ID 7055446 | <https://doi.org/10.1155/2022/7055446>

**Published**08 Oct 2022.

36-Optimization of stirrer parameters by Taguchi method for a better ceramic particle stirring performance in the production of Aluminum Alloy Matrix

Composite,Published online: 04 Jan 2023, Cogent Engineering (2023), 10: 2154005 <https://doi.org/10.1080/23311916.2022.2154005> Page 1 of 22© 2023. Quartile: Q2 Taylor and Francis Group.