

## **Assistant Professor Dr. Ali Sabea Hammood**



**University of Kufa**

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**Biomedical Materials Engineering  
Track**

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**Google Scholar: - <https://scholar.google.com/citations?user=TrZR7DgAAAAJ&hl=en>:**

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**ResearcherID: - O-9876-2015**

**B.Sc., M.Sc. and Ph.D. from University of Technology in Production and Metallurgy Engineering-Metallurgy Engineering, Head of Materials Engineering Department from 2007 - 2014, Head of Biomedical Materials Engineering Track. He has over 34 scientific researches publications, authored 5 engineering scientific books and has supervised 3 Ph.D. Projects and 6 M.Sc. Dissertations.**

### **Research Interests:**

**1-Advanced Materials.**

**2-Biomaterials.**

**3-Powder technology.**

**4-Composite Materials.**

**5- Corrosion.**

**6-Casting.**

**7-Laser Treatment.**

**8-Nano-materials.**

### **Teaching Interests:**

**1-Biomaterials.**

**2-Design and Selection of Materials.**

**3-Engineering Materials.**

**4-Corrosion Engineering.**

**5-Metallurgy Engineering.**

**6-Manufacturing Processes.**

**7-Materials Testing**

## **Selected Publishing Researches:**

*1-Kadhim Mohammed Jasim, Sami IbrahimAl-Rubaiey, AliSabeaHammoood, The influence of laser specific energy on laser sealing of plasma sprayed yttria partially stabilized zirconia coating, Optics and Lasers in Engineering,51 (2013) 159–166.*

*Impact Factor:1.838*

*2- Prof. Dr. Muhsin J. Jweeg , Asst. Prof. Dr. Ali S. Hammood and Muhannad Al-Waily, Experimental and Theoretical Studies of Mechanical Properties for Reinforcement Fiber Types of Composite Materials, International Journal of Mechanical & Mechatronics Engineering( IJMME)-IJENS Vol:12 No:04,(2012)*

*Impact Factor:0.6666*

*3- Ali Hammood and ZainabRadeef, Characterizations of Their Properties, Chapter 12 in Composite Materials and Their Properties , INTECH, Edited by Ning Hu.(2012)*

*4- Muhsin J. Jweeg1, Ali S. Hammood, and Muhannad Al-Waily, A Suggested Analytical Solution of Isotropic Composite Plate with Crack Effect, International Journal of Mechanical & Mechatronics Engineering(IJMME)-IJENS Vol:12 No:05,(2012).*

*Impact Factor:0.6666*

*5-Muhsin J. Jweeg1, Ali S. Hammood, and Muhannad Al-Waily, A Suggested Analytical solution of Orthotropic Composite Plate Structure with Crack Effect, International Journal of Mechanical Engineering (IJME),Sep. 2012.*

*Impact Factor:0.6666*

*6-Muhsin J. Jweeg1, Ali S. Hammood, and Muhannad Al-Waily, A Suggested Analytical Solution of Different Composite Plate Types with Crack Effect, Journal of Science and Technology, Vol.2 , No.8, 2012.*

*7- Kadhim Mohammed Jasim ,Ali SabeaHammoood,Laser Heat Treatment For Electron Beam Evaporation coating, Journal of Engineering and Technology, Vol.15-No. 11, 1996.*

**8-Ali S. Hammood, and Muhannad Al-Waily, Ali Abd. Kamaz ,Effect of fiber orientation on the fatigue of glass-fiber reinforcement epoxy composite material, The Iraqi Journal for Mechanical and Materials Engineering, Vol.11-No. 2 , 2011.**

**9-Ali S. Hammood, and Muhannad Al-Waily ,Experimental and Analytical Study Of Tensile Properties For Hyper Composite Material, The Iraqi Journal for Mechanical and Materials Engineering, Vol.10-No. 1, 2010.**

**10-Ali SabeaHammood, A Study for some of Mechanical Behavior of Flame – Sprayed Coatings, Proceedings of The First Conference For Pure and Applied Sciences-University of Kufa, March 2008.**

**11- Ali S.Hammood,Laser Surface Treatment of High Speed Steel ,The Iraqi Journal for Mechanical and Materials Engineering ,Vol.6-No. 5, 2000.**

**12-Talib K. Ibrahim, Ali S.Humod, Rapid Solidification processing of Al-3 wt.% Mg Alloy ,Journal of Engineering and Technology ,Vol.25-No. 10, 2007.**

**13- Mohammed JasimKadhim,Ali SabeaHumod,The corrosion of cupronickel alloys in 3.5% sodium chloride & ammonium nitrate solution, Al-Kufa Journal , Pure And Applied Sciences, Vol.8-No. 2, 2007.**

**14 -Ali S.Humod,Mohammed J. Kadhim, The Effect of Homogenization on Microstructure Features and Corrosion Behavior of Cast Cupronickel Alloys, Al-Kufa Journal – Pure And Applied Sciences, Vol.8-No. 1, 2007.**

**15 -Ali SabeaHumod, Preparation of Melt-Spun Al-4.5%Cu Ribbons ,Babylon University Journal Vol.10-No. 5 , 2005.**

**16 -Mohammed J.Kadhim, Ali S.Humod Foundry Characteristics & Corrosion Behaviour of a Cupronickel Alloys, The Iraqi Journal for Mechanical and Materials Engineering, Vol.5-No. 1 , 2005.**

**17- Ali SabeaHumod, Analysis of Factors Influencing the Plasma Sprayed Layer Qualities, Babylon University Journal– Pure And Applied Sciences, Vol.6-No. 5 , 2000.**

**18-Kadhim Mohammed Jasim,Ali SabeaHammood,Laser Heat Treatment for flame spray coating, Al-Anbar University Journal, January 1999.**

**19- Ali SabeaHammood, Study of Hardness for carbon Steel, First Kufa University Scientific conference, April 1996.**

**20- Kadhim Mohammed Jasim,Ali SabeaHammood,Pulse laser Surface Treatment of Plasma Sprayed Coatings, Journal of Engineering and Technology, Vol.19-No. 3, 2000.**

- 21-*Kadhim Mohammed Jasim, Ali Sabea Hammood, Laser Heat Treatment For Electron Beam Evaporation coating, Journal of Engineering and Technology, Vol.15-No. 11 , 1996.*
- 22-*Talib K. Ibrahima, Falih Hasan Hamza, Ali Sabea Hammood ,Preparation of Ultra Fine Powder by Low Power CO2 Laser ,Journal of Engineering and Technology Vol.19-No. 6, 2000.*
- 23- *Ali S. Hammood and Haider Mahdi Lieth ,A Study the Effect of Retained Austenite on Fatigue Life of Austempering Ductile Iron by Using Artificial Neural Networks, International Journal of Current Engineering and Technology, ISSN 2277 – 4106, Vol.3, No.5 , 2013.*
- 24- *Asst. Prof. Dr. Ali S. Hammood, Haider Mahdi lieth, Development Artificial Neural Network Model to Study the Influence of Oxidation Process and Zinc-Electroplating on Fatigue Life of Gray Cast Iron, International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS , Vol:12, No:05, 2012.*
- 25- *Ahmad. K. Jassim, Ali S. Hammood ,Sustainable Manufacturing Process for Bulk Metallic Glasses Production Using Rapid Solidification with Melt Spinning Technique,2014 International Conference on Material Science and Material Engineering, March 14-16 March,2014,Chicago, Illinois, USA.*
- 26- *Ahmad. K. Jassim, Ali S. Hammood, Single Roll Melt Spinning Technique Applied to Produce Micro Thickness Rapid Solidified Ribbons Type 5083 (Al-Mg) alloy' Paper ID: 201404-P00129 International Parallel Conferences on Researches in Industrial & Applied Sciences, April, 25th & 26th 2014; Dubai, UAE.*
- 27- *Ahmad. K. Jassim, Ali S. Hammood, Production of Al-Mg alloy Ribbons by Using Single Roller Wheel Melt Spinning as a Non-Conventional Forming Technology, Basra Journal for Engineering Sciences, Vol. 14, No. 2, 2014.*
- 28- *Ahmad. K. Jassim, Ali S. Hammood, Single Roll Melt Spinning Technique Applied as a Sustainable Forming Process to Produce Very Thin Ribbons of 5052 and 5083 Al-Mg Alloys Directly from Liquid State, 13th Global Conference on Sustainable Manufacturing, Technische Universität Berlin,2014.*
- 29- *Ammar Abdulkareem Hashim, Ali Sabea Hammood, Nawal Jasem Hammadi, Evaluation of High-Temperature Oxidation Behavior of Inconel 600 and Hastelloy C-22, Arabian Journal for Science and Engineering, Volume 40, [Issue 9](#), September 2015, pp 2739-2746.*
- 30- *Ali S. Hammood, Effect of Erosion on Water Absorption and Morphology for Treated Date Palm Fiber Reinforced Polyester Composites, International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS, Vol:15, No:06, 2015.*

*31-Ali Sabea Hammood, Ahmed Faraj Noor, Mohammed Talib Alkhafagy, Evaluation of corrosion behavior in artificial saliva of 2507 and 2205 duplex stainless steel for orthodontic wires before and after heat treatment, Journal of Materials Science-Materials in Medicine, Vol.28,No.187,2017.*

*32- Ali Sabea Hammood, Ahmed Faraj Noor, Mohammed Talib Alkhafagy, Effect of Heat Treatment on Corrosion Behavior of Duplex Stainless Steel in Orthodontic Applications, Materials Research Express, Nov.2017.*

*33- Ali Sabea Hammood, Sora Salem Hassan, Mohammed Talib Alkhafagy, Access to Optimal Calcination Temperature for Nanoparticle Synthesis from Hydroxyapatite Bovine Femur Bone Waste, Nano Biomedicine and Engineering, Vol.9, No.3, 2017, pp.228-235.*

*34- Hassanen L. Jabe1, Ali Sabea Hammood , Nader Parvin, Synthesis and Characterization of Hydroxyapatite Powder from Natural Camelus Bone, Journal of the Australian Ceramic Society, Sep. 2017.*

## **Authored Books:**

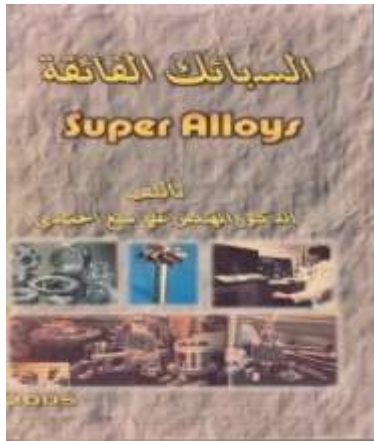
### **1- Casting Design :**



### **2- Welding Engineering:**



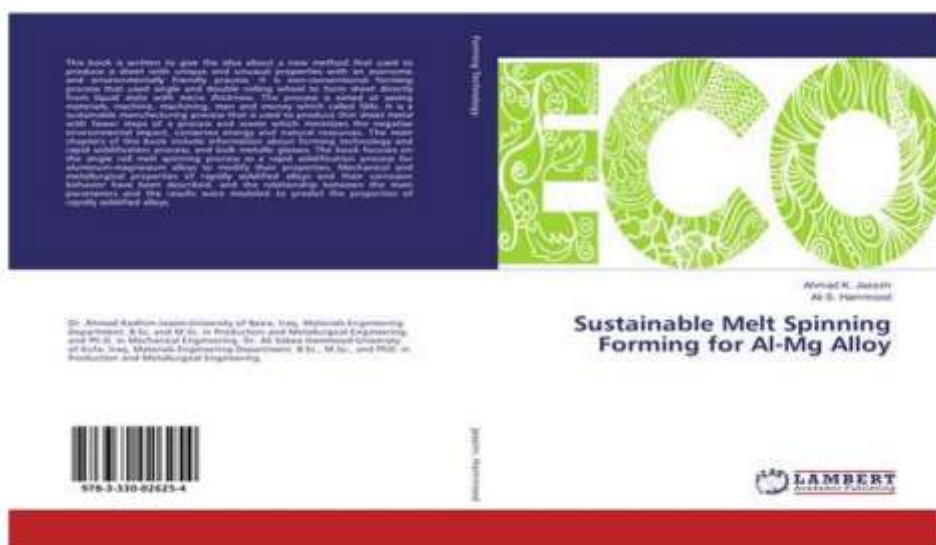
### 3- Super Alloys :



### 4-Corrosion Mechanism of Cupronickel Alloys:



### 5-Sustainable Melt Spinning Forming for Al-Mg Alloy



## Patent:



(19)  
جمهورية العراق  
وزارة التخطيط  
الجهاز المركزي للتقييس والسيطرة النوعية

براءة اختراع (12)

(11) رقم البراءة : 5272	(51) التصنيف الدولي A61C7/12
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(45) تاريخ منح البراءة : 2018/3/4	

(72) اسم المخترع وعنوانه :

1- ا.م.د. علي سبع حمود / جامعة الكوفة - كلية الهندسة - قسم هندسة المواد  
2- السيد احمد فرج نور / ذي قار - ناصرية - غراف  
3- ا.د. محمد طالب عبد الحسن / جامعة الكوفة - كلية طب الاسنان

(73) اسم صاحب البراءة : السذوات اعلاه

(74) اسم السوكيل:

(54) تسمية الاختراع:

استخدام الفولاذ المقاوم للصدأ المزدوج (2507) كمادة جديدة لتطبيقات تقويم الاسنان وتحسين مقاومتها للتآكل بواسطة المعاملة الحرارية .

منحت هذه البراءة امتداداً لأحكام المادة (21) من قانون براءة الاختراع والنماذج الصناعية رقم (65) لسنة 1970 المعدل وعلى مسؤولية المخترع.

سعد عبد الوهاب عبد القادر  
توقيع  
رئيس الجهاز

**Postgraduate (M.Sc. and Ph.D.) and Thesis Titles supervised by:**

**Asst .Prof. Dr. Ali Sabea Hammood**

<b>No.</b>	<b>Thesis Title</b>	<b>Student Name</b>	<b>Degree</b>	<b>University-Faculty-Department</b>	<b>Achievement Year</b>
<b>1</b>	<b>Investigating of health monitoring of composite plate structures – using vibration analysis</b>	<b>Muhanned Al-Waily</b>	<b>Ph.D.(Eng.)</b>	<b>Al-Nahrain University-College of Engineering-Mechanical Engineering Department</b>	<b>2013</b>
<b>2</b>	<b>Experimental and Artificial Neural Network Investigation of Fatigue Life for Gray and Nodular Cast Iron</b>	<b>Haider Mahdi Laith</b>	<b>Ph.D.(Eng.)</b>	<b>Basrah University College of Engineering-Mechanical Engineering Department</b>	<b>2013</b>
<b>3</b>	<b>Effect of Rapid Solidification Process on The Mechanical Properties and Microstructure of Al-Mg 5052 and 5038 Alloys</b>	<b>Ahmad Kadhim Jassim</b>	<b>Ph.D.(Eng.)</b>	<b>Basrah University College of Engineering-Mechanical Engineering Department</b>	<b>2014</b>
<b>4</b>	<b>A study of The Behavior for Nickel Base Superalloys (Inconel 600 &amp; Hastelloy C-22) in Corrosive Solutions and High Temperatures Oxidation</b>	<b>Ammar Abdul-Karim Hashim</b>	<b>M.Sc.(Eng.)</b>	<b>Basrah University College of Engineering-Materials Engineering Department</b>	<b>2014</b>
<b>5</b>	<b>The Corrosion Behavior of Duplex Stainless Steel in Biomedical Applications</b>	<b>Ahmed Faraj Noor</b>	<b>M.Sc.(Eng.)</b>	<b>University of Kufa-Faculty of Engineering-Materials Engineering Department</b>	<b>2017</b>



<b>6</b>	<b>Preparation and Characterization of Hydroxyapatite from Different Bio-waste materials</b>	<b>Sora Saleem Hassan</b>	<b>M.Sc.(Eng.)</b>	<b>University of Kufa- Faculty of Engineering- Materials Engineering Department</b>	<b>2017</b>
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