

Name: GUY Yehuda BEN-HAMU

Date: September 2020

CURRICULUM VITAE

1. Personal Details

Permanent Home Address: He'Arim Ha'Tewomot 32/13 Ave. Beer Sheva

Home Telephone number: +972-86497368

Office Telephone number: +972-8-8519089

Cellular Phone: +972-54-7787911

Electronic Address: guy@sce.ac.il

2. Higher Education:

A. Undergraduate and Graduate Studies

Period of Study	Name of Institution and Department	Degree	Year of Approval of Degree
4 Year	Ben Gurion University of the Negev, Israel. Materials Engineering	Ph.D	2008
2.5 Year	Ben Gurion University of the Negev, Israel. Materials Engineering	M.Sc	2003
4 Year	Ben Gurion University of the Negev, Israel. Materials Engineering	B.Sc	2000

B. Post-Doctoral Studies

Period of Study	Name of Institution and Department	Degree	Year of Completion
1 Year	Environmental Degradation of Materials Laboratory (Prof. Dan Eliezer), Department of Materials Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel	Post - Doc	9/2009

3. Academic Ranks and Tenure in Institutes of Higher Education

Dates	Name of Institution and Department	Rank/Position
Since October 2015	Sami Shamoon College of Engineering. Department of Mechanical Engineering	Tenure
Since October 2015	Ben-Gurion University of the Negev, Energy Unit.	Adjunct lecturer Courses: Hydrogen and Energy; Materials selection for Energy Engineering
Since October 2013	Sami Shamoon College of Engineering. Department of Mechanical Engineering, Beer-sheva & Ashdod, Israel	Head, Department of Mechanical Engineering – Ashdod Campus
Since April 2013	Mechanical Engineering Department, SCE - Sami Shamoon College of Engineering, Beer-Sheva, Israel	Senior lecturer
10/2009-2013	Mechanical Engineering Department, SCE - Sami Shamoon College of Engineering, Beer-Sheva, Israel	Lecturer
2008 – 10/2009	Environmental Degradation of Materials Laboratory (Prof. Dan Eliezer), Department of Materials Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel	Post-Doctoral Studies
2003 - 2008	Materials Engineering Department, Ben Gurion University of the Negev, Beer-Sheva, Israel	Research Assistant, Teacher & Laboratories Coordinator Environmental Degradation of Materials Laboratory

4. Offices in Academic Administration

Dates	Name of Institution and Department	Rank / Position
2013 - Present	Sami Shamoon College of Engineering, Department of Mechanical Engineering - Ashdod campus	Head of the Department
2015 – 2019	Sami Shamoon College of Engineering	Engineers to the Community – "MEANDESIM LAKHILA" – Committee member
2011 - Present	Sami Shamoon College of Engineering, Department of Mechanical Engineering	B.Sc. committee – Chairman
2009 – 2013	Sami Shamoon College of Engineering, Department of Mechanical Engineering	Manufacture Technology & Engineering projects Coordinator

5. Scholarly Position and Activities Outside the Institution

(a) Memberships in Professional/Scientific Associations:

- Israel Society of Manufacturing Engineering, The Association of Engineers, Architects and Graduates in Technological Sciences in Israel - Chairman
- Israel Welding Society - Committee Member
- Joining and Testing of Materials Committee (No. 5416), Standards Institution of Israel – Member (CHE Representative)
- NACE international –Member of the Nominating Committee.
- European federation of corrosion (EFC) – Member
- American Society for Metals (ASM) – Member
- TMS – The minerals, Methods and Materials Society – Member

(b) Reviewer in pre-review scientific Journals

- Materials science and Engineering C.
- Journal of Alloys and Compounds
- Journal of the Electrochemical Society.
- Corrosion Science
- Materials Letters

6. Participation in Scholarly Conferences

a. Active participation

International Conferences

Date	Name of Conference	Place of Conference	Subject of Lecture/Discussion	Role
30/9-4/10/2001	EUROCORR 2001	Lake Garda, Italy	A. Eliezer, E.M. Gutman, P.L. Bonora, E. Abramov, Y. Unigovski, M. Andrei, G. Ben-Hamu "Environmentally assisted fatigue fracture of magnesium alloys"	
22-27/9/2002	The 15 th International Corrosion Congress	Granada, Spain	G. Ben-Hamu , A. Eliezer, A. Abramov, E.M. Gutman and Y. Unigovski "Mechanoelectrochemical Behavior of Magnesium Alloys"	
28/9-2/10/2003	EUROCORR 2003	Budapest, Hungary	G. Ben-Hamu , A. Eliezer, A. Abramov, E.M. Gutman, M. Andrei and P.L. Bonora "Mechanoelectrochemical Behavior of die-cast and extrusion Magnesium Alloys"	

12-16/9/2004	EUROCORR 2004	Nice, France	G. Ben-Hamu and D. Eliezer "Development of New Magnesium Alloys for Stress Corrosion Applications"	
12-16/9/2004	EUROCORR 2004	Nice, France	G. Ben-Hamu , D. Eliezer, K. S. Shin and S. Cohen "Corrosion and Oxidation of New Magnesium Alloys for Automotive Applications"	
4-8/9/2005	EUROCORR 2005	Lisbon, Portugal	G. Ben-Hamu , D. Eliezer and K. S. Shin "Corrosion Behavior of New Wrought Mg-Zn Alloys"	
29/11-1/12/2005	Magnesium – broad Horizons – The first Russia International Conference	Moscow, Russia	A.A. Kaya, D. Eliezer, G. Ben-Hamu , O. Golan, Y.G. Na and K.S. Shin "Microstructure and corrosion behavior of Mg-Zn-Ag Alloy"	
29/11-1/12/2005	Magnesium – broad Horizons – The first Russia International Conference	Moscow, Russia	A.A. Kaya, G. Ben-Hamu , D. Eliezer, K. S. Shin and S. Cohen "Corrosion and Oxidation of Mg-Y-RE-Zr Alloys"	
12-16/3/2006	Magnesium Technology – TMS 2006	San Antonio, Texas, USA	D. Eliezer, G. Ben Hamu , C.E.Cross and Th. Bollinghaus "Effect of Grain Refinement on the Strength and Corrosion of Magnesium"	
26-28/6/2006	Second International Conference on Magnesium (ICM-2006)	Beijing, China	G. Ben-Hamu , D. Eliezer, K. S. Shin "The Role of Second particles on new wrought Mg-Zn-Mn based alloys"	
26-28/6/2006	Second International Conference on Magnesium (ICM-2006)	Beijing, China	G. Ben-Hamu , D. Eliezer "Microstructure and Corrosion resistance of TIG Welded AZ31 Magnesium sheet"	
11-15/9/2006	Fourth International Conference Mathematical Modeling and Computer Simulation of Materials	College of Judea and Samaria, Ariel, Israel	G. Ben-Hamu , D. Eliezer and K. S. Shin, "The role of alloying elements on the Corrosion Behavior of new Wrought Mg-Zn Based Alloys"	

	Technologies (MMT-2006)			
24-28/9/2006	EUROCORR 2006	Maastricht, The Netherlands	G. Ben-Hamu , D. Eliezer and K. S. Shin "Characterization of New Wrought Mg-Zn-Si Based Alloys by Scanning Kelvin Probe Force Microscopy"	
24-28/9/2006	EUROCORR 2006	Maastricht, The Netherlands	G. Ben-Hamu , D. Eliezer "Effect of Severe Plastic Deformation on the Microstructure and Corrosion Behavior of AZ31 Magnesium Alloy"	
24-28/9/2006	EUROCORR 2006	Maastricht, The Netherlands	G. Ben-Hamu , D. Eliezer, C.E. Cross and Th. Bollinghaus "Volta potential of second phase particles in TIG Welded AZ31 Magnesium Sheet"	
6-9/11/2006	7 th international Conference on Magnesium alloys and their Applications	Dresden, Germany	G. Ben-Hamu , D. Eliezer and K. S. Shin "The Role of Si and Ca on New Wrought Mg-Zn-Mn Based Alloys"	
6-9/11/2006	7 th international Conference on Magnesium alloys and their Applications	Dresden, Germany	C.E. Cross, G. Ben-Hamu , D. Eliezer "Corrosion-Fatigue of AZ31 Wrought Magnesium Weldments"	
25/2-1/3/2007	Magnesium Technology – TMS2007	Orlando, Florida, USA	G. Ben Hamu , D. Eliezer and L. Wagner "Effects of Severe Plastic Deformation on the Mechanical and Corrosion Behavior of Mg Alloys"	
25/2-1/3/2007	Magnesium Technology – TMS2007	Orlando, Florida, USA	G. Ben Hamu , D. Eliezer and K. S. Shin "The Relation between Microstructure and Coreosion Properties of Extruded Mg-Zn base Alloys"	
25/2-1/3/2007	Magnesium Technology – TMS2007	Orlando, Florida, USA	G. Ben Hamu and D. Eliezer "The Role of Al GTA Welded AZ31B Magnesium Sheet"	

11-15/3/2007	NACE Corrosion 2007	Nashville, Tennessee, USA	G. Ben Hamu and D. Eliezer "Local Potential Measurements with the Scanning Kelvin Probe force Microscopy"	
20-24/5/2007	International Corrosion Engineering Conference (ICEC)	Seoul, Korea	G. Ben Hamu , D. Eliezer, K. S. Shin and L. Wagner "Corrosion Mechanisms of New Wrought Mg-Zn Based Alloys Alloying With Si, Ca and Ag"	
9-13/9/2007	EUROCORR 2007	Freiburg, Germany	G. Ben Hamu , D. Eliezer and L. Wagner "The Relation Between Processing, Microstructure and Corrosion Behavior of Wrought Mg Alloys"	
25-28/11/2007	Corrosion Control 007	Sydney, Australia	G. Ben Hamu , D. Eliezer and K.S. Shin "The Relation Between Processing, Microstructure and Corrosion Behavior of New Mg Alloys for Transportation Application"	
16-20/3/2008	NACE Corrosion 2008	New Orleans, Louisiana, USA	G. Ben Hamu , "The relation Between Processing, Microstructure and Localized Corrosion of Mg alloys for Automotive Applications"	
18-22/8/2008	The 4 th International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4)	Goslar, Germany	G. Ben Hamu , D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys"	
7-11/9/2008	EUROCORR 2008	Edinburgh, UK	G. Ben Hamu , D. Eliezer and L. Wagner "Hydrogen Tapping Mechanism in TIMETAL LCB Alloy following High Cycle Fatigue Performance"	
22-26/3/2009	NACE Corrosion 2009	Atlanta, Georgia, USA	G. Ben Hamu , "Stress Corrosion Cracking of Wrought Mg-Zn-Mn-Si alloys"	

13-16/9/2010	The 5 th PhD students and Young Scientist Conference (PhD&YSC)	Warsaw university of technology (WUT), Poland	G. Ben Hamu, "Corrosion and Stress Corrosion Cracking of new wrought Magnesium Alloys"	
13-17/3/2011	NACE Corrosion 2011	Houston, Texas	G. Ben Hamu, "Local potential measurements with the SKPFM on Wrought Magnesium Alloys"	
8-12/7/2012	9 th International Conference on Magnesium alloys and their Applications	Vancouver, Canada	G. Ben Hamu and A Eliezer, "The relation Between Microstructure and corrosion Behavior of FSW Magnesium Alloys"	
17-21/2013	NACE Corrosion 2013	Orlando, Florida	G. Ben Hamu, A. Eliezer and J. Haddad, "Corrosion Characterization of Magnesium Alloys by TEM and SKPFM Studies"	
2-6/12/20013	THERMEC' 2013	Las Vegas, NV, USA	G. Ben Hamu, "Corrosion Characterization of Magnesium Alloys – The Role of Process Parameters"	Invited Speaker
14-16/5/2014	NACE European Corrosion Conference & Expo 2014	San Lorenzo de El Escorial de Madrid, Spain	G. Ben Hamu and A Eliezer, "Stress Affects corrosion Initiation of Magnesium Alloys"	
2-6/11/2014	The 17th International Corrosion congress	Jeju, Korea	G. Ben Hamu, D. Eliezer and K.S. Shin, "Corrosion of Wrought Mg-Zn Alloys – The Role of Alloying Elements"	Invited Speaker
2-6/11/2014	The 17 th International Corrosion congress	Jeju, Korea	G. Ben Hamu, "Can Robots Walk on the Dead Sea – Salts Environment?"	
11-16/10/2015	The 10th International Conference on Magnesium Alloys and their Applications (MG 2015)	Jeju, Korea	G. Ben Hamu, D. Eliezer and K.S. Shin "Corrosion Behavior of Newly Developed Wrought Mg Alloys: A Brief Review"	Keynote Speaker

11-16/10/2015	The 10 th International Conference on Magnesium Alloys and their Applications (MG 2015)	Jeju, Korea	G. Ben Hamu and A. Burg, "The Synergetic Effect of Fenton Reaction to Corrosion of Magnesium Implants"	
11-16/10/2015	The 10 th International Conference on Magnesium Alloys and their Applications (MG 2015)	Jeju, Korea	Y. Templeman, G. Ben Hamu and L. Meshi "The Relation between Microstructure and Corrosion Behavior of FSW Mg-Al Alloys"	
26-30/3/2017	NACE Corrosion 2017	New Orleans, LA, USA	G. Ben Hamu , "Patient specific orthopedic implants manufactured by Additive manufacturing – A Corrosion Study"	
26-30/3/2017	NACE Corrosion 2017	New Orleans, LA, USA	G. Ben Hamu , A. Burg, "The role of Fenton Reaction in biodegradable Magnesium and its alloys"	
17-22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017)	Thessaloniki, Greece	P. Metalnikov and G. Ben Hamu , "The effect of alloying elements on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys"	
17-22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017)	Thessaloniki, Greece	P. Metalnikov and G. Ben Hamu , "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys"	
1-5/7/2018	12th International Conference on Advanced Computational Engineering and	Amsterdam, The Netherlands	G. Ben-Hamu , "Patient-specific orthopedic implants manufactured by Additive Manufacturing – The Role of Built Orientation"	Invited Speaker

	Experimenting (ACEX2018)			
8-13/7/2018	THERMEC 2018	Paris, France	G. Ben-Hamu , "Corrosion Mechanisms of new Wrought Mg-Al based alloys Alloying with Mn, Zn and Sn"	Invited Speaker
24-27/7/2018	The 11 th International Conference on Magnesium Alloys and Their Applications	Old Windsor, UK	G. Ben-Hamu , "Dissimilar Friction Stir Welded Mg alloys: Microstructure evolution and improved corrosion resistance"	
24-27/7/2018	The 11 th International Conference on Magnesium Alloys and Their Applications	Old Windsor, UK	P. Matalnikov, G. Ben-Hamu and D. Eliezer, "Wrought Magnesium Alloys Design Strategy – Base on Corrosion Studies"	
24-28/6/2019	5 th EuChemS Inorganic Chemistry Conference	Moscow, Russia	G. Ben Hamu , D. Shamir, M. Zohar, A. Burg, "Acceleration of the corrosion reaction of magnesium by Fenton reagents"	
1-5/7/2019	13th International Conference on Advanced Computational Engineering and Experimenting (ACEX2019)	Athens, Greece	G. Ben-Hamu , "Development of new wrought Mg alloys: improving the corrosion resistance by addition of alloying elements"	Invited Speaker
1-5/9/2019	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT)	Stockholm, Sweden	P. Metalnikov, D. Eliezer, G. Ben-Hamu , "Environmental Degradation of Additive Manufactured Ti-6Al-4V Alloy"	

1-5/9/2019	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT)	Stockholm, Sweden	R. Komerian, E. Grinberg, G. Ben-Hamu , D.Eliezer, S. Samuha, "The Role of applied pressure on the susceptibility of the AISI 1020 pipeline steel to stress corrosion cracking "	
27-29/1/2020	Welding, Joining and Additive Manufacturing WJAM International Conference 2020	Ramat-Gan, Israel	P. Metalnikov, D. Eliezer, G. Ben-Hamu , "Environmental Degradation of AM Fabricated Alloys"	

Israeli Conferences

Date	Name of Conference	Place of Conference	Subject of Lecture/Discussion	Role
5-7/2/2002	The 10 th Israel Materials Engineering Conference	Dead Sea, Israel	L. Riber, A. Eliezer, O. Galili, E.M. Gutman, Y. Unigovski and G. Ben-Hamu "Effect of Environment and Temperature on Stress-Relaxation in Magnesium Alloys"	
5-7/2/2002	The 10 th Israel Materials Engineering Conference	Dead Sea, Israel	G. Ben-Hamu , A. Eliezer, A. Abramov, E.M. Gutman and Y. Unigovski "Mechanoelectrochemical Behavior of Magnesium Alloys"	
29/5/2003	The 1 st Israel Conference on corrosion Processes & Advanced Materials	NACE, Beer Sheva, Israel	G. Ben-Hamu , E.M. Gutman and A. Eliezer "Electrochemical Behavior of Magnesium Alloys Strained in Aqueous Solutions"	
29/5/2003	The 1 st Israel Conference on Corrosion Processes & Advanced Materials	NACE, Beer Sheva, Israel	K. Ben-Baruch, A. Cohen, Z. keren, R. Greysuch, G. Ben-Hamu , E.M. Gutman, Ya. Unigovski and A. Eliezer "Corrosion Behavior of Pure Magnesium and its Alloys Under Static Loading"	

24-25/12/2003	The 11 th Israel Materials Engineering Conference	Technion Haifa, Israel	G. Ben-Hamu , D. Eliezer and S. Cohen "Corrosion of Mg-Zr-RE Alloys"	
24-25/12/2003	The 11 th Israel Materials Engineering Conference	Technion Haifa, Israel	S. Cohen, D. Eliezer and G. Ben-Hamu "The correlation Between Zirconium Morphology after Aging Treatment and the corrosion Resistance of New MRI Alloys"	
24-25/12/2003	The 11 th Israel Materials Engineering Conference	Technion Haifa, Israel	A. Eliezer, Y. Zafrir, O. Raz, G. Ben-Hamu , Y. Unigovski, E.M. Gutman, Z. Koran and J. Haddad "Corrosion Behavior of Semisolid Magnesium Alloys"	
13/5/2004	6 th Biannual Conference of the Corrosion Forum NACE Israel	Carmiel, Israel	G. Ben-Hamu , D. Eliezer and S. Cohen The Methods of New "Developed Magnesium Alloys for Stress Corrosion Applications"	
1-2/6/2005	The Second Israel Conference on corrosion Processes & Advanced Materials (CAMPI 2005)	Beer-Sheva, Israel	G. Ben-Hamu , D. Eliezer and K.S. Shin "The influence of Si and Ag addition on the Corrosion Behavior of New Wrought Mg-Zn Alloys"	
1-2/6/2005	The Second Israel Conference on corrosion Processes & Advanced Materials (CAMPI 2005)	Beer-Sheva, Israel	Z. Bareket, A. Ben Artzy, A. Shtechman, G. Ben-Hamu and D. Eliezer "The Effect of severe Plastic Deformation on the Mechanical and Corrosion Behavior of light Metals"	
1-2/6/2005	The Second Israel Conference on corrosion Processes & Advanced Materials (CAMPI 2005)	Beer-Sheva, Israel	L. Marom, E. Abir, G. Ben - Hamu and D. Eliezer "The Influence of Chloride ion Concentration and Geometry on the Corrosion Behavior of Mg-Al-X Die-Cast Alloys"	
1-2/6/2005	The Second Israel Conference on	Beer-Sheva, Israel	O. Gonen, G. Ben – Hamu and D. Eliezer	

	corrosion Processes & Advanced Materials (CAMPI 2005)		"The influence of second Phases on the Stress corrosion Behavior of Mg-Al-X Die-Cast Alloys"	
1-2/6/2005	The Second Israel Conference on corrosion Processes & Advanced Materials (CAMPI 2005)	Beer-Sheva, Israel	S. Cohen, G. Ben-Hamu and D. Eliezer "Corrosion and Oxidation of Mg-Y-Re-Zr Alloys"	
1-2/3/2006	The 12 th Israel Materials Engineering Conference	Beer-Sheva, Israel	G. Ben-Hamu , D. Eliezer and K. S. Shin "Corrosion Mechanisms of New Wrought Mg-Zn-Si-Ca Alloys by Scanning Kelvin Probe Force Microscopy"	
1-2/3/2006	The 12 th Israel Materials Engineering Conference	Beer-Sheva, Israel	G. Ben-Hamu , D. Eliezer and A. Kaya "The Relation between Microstructure and Corrosion Behavior of Magnesium Alloys"	
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	G. Ben-Hamu and D. Eliezer, "Processing and Characterization of New Magnesium Alloys "	
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	M. Ben-Haroush, D. Eliezer, G. Ben-Hamu and L. Wagner, "The relation Between Microstructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys"	
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	O. Burg, G. Ben-Hamu , M. Ben-Haroush and D. Eliezer, "The relation Between Extrusion Process and The Corrosion Behavior of Wrought Magnesium Alloys in Alkaline Solution"	

29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	A. Machleva, A. Haim, G. Ben-Hamu and D. Eliezer, "Hydrogen Embrittlement and Stress Corrosion Cracking in Stainless Steel"
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	O. Nahum, G. Ben-Hamu , D. Eliezer and C.E. Cross, "The Relation Between Microstructure and Corrosion Behavior of GTA Welded AZ31B Magnesium Sheet with different Al Contents "
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	Y. Segev, G. Ben-Hamu , D. Eliezer and K.S. Shin, "The Influence of Chloride ion Concentration and pH on the Corrosion behavior of Extruded ZSMX Mg Alloy"
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	Y. Vered, E. Rosenkrantz, E. Barel, D. Eliezer, G. Ben-Hamu , "Influence of Hydrogen Embrittlement on Pre-deformed Timetal LCB"
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	Y. Snir, G. Ben-Hamu , S. Haroush, M. Pinkas and A. Landau, "Joining of Magnesium Alloys, Using a Solid-Solid FSW Technique"
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	C.E. Cross, P. Xu, D. Eliezer, and G. Ben-Hamu , "Galvanic Weld Metal–Base Metal Corrosion in AZ31 Magnesium Weldments"
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry	Beer-Sheva, Israel	G. Ben-Hamu , D. Eliezer, K.S. Shin, "The Relation Between Microstructure and Corrosion Behavior of New Mg-Al-X Alloys for

	(CAMPI-2007)		Transportation Application”	
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	G. Ben-Hamu , D. Eliezer, K.S. Shin, “Studies on the influence of chloride ion concentration on the corrosion behavior of ZSMX magnesium alloy”	
29-31/5/2007	3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-2007)	Beer-Sheva, Israel	E. Barel, G. Ben-Hamu , and D. Eliezer, “Microstructure of Ti–45Al–5Nb after cathodic charging”	
13-14/12/2009	The 14 th Israel Materials Engineering conference (IMEC14)	Tel-Aviv University, Israel	G. Ben Hamu and D. Eliezer, "Corrosion and Stress Corrosion Cracking of new wrought Mg-Zn Mn-Si alloys"	
14/1/2013	Welding and Joining 2013	Ramat Gan, Israel	G. Ben-Hamu , "Characterization of Welded Magnesium Alloys"	
14/1/2013	Welding and Joining 2013	Ramat Gan, Israel	G. Ben-Hamu , O. Levi and D. Oded, "Study of Friction Stir Welding Parameters of AM50 Magnesium alloy by Finite Element Method"	
21/1/2014	Welding and Joining 2014	Kfar Maccabiah, Israel	G. Ben-Hamu , "R&D of advance welding process by finite element simulation"	
21/1/2014	Welding and Joining 2014	Kfar Maccabiah, Israel	I. David, O. Birodker and G. Ben-Hamu , "Development of Friction Stir Welding Processes for Pressure pipes"	
21/1/2014	Welding and Joining 2014	Kfar Maccabiah, Israel	O. Kadosh, S. Ben David and G. Ben-Hamu , "The relation between friction stir welding parameters to product characteristics of hybrid metals"	

21/1/2014	Welding and Joining 2014	Kfar Maccabiah, Israel	Y. Ben-Arush, E. Fineberg, G. Ben-Hamu and L. Meshi, "Microstructural Characterization of Friction-Stir-Welded Die Cast AM50 Magnesium Alloy"
23-25/2/2014	The 16 Israel Materials Engineering Conference (IMEC16)	Haifa, Israel	Y. Ben-Arush, G. Ben-Hamu and L. Meshi, "The Relation between Microstructure, Mechanical Properties and Corrosion Behavior of Friction-Stir-Welded Die Cast AM50 Magnesium Alloy."
18-20/1/2015	Welding, Joining and Additive Manufacturing 2015	Tel Aviv, Israel	G. Ben-Hamu , Y. Templeman and L. Meshi, "Microstructural Characterization and Corrosion Behavior of Friction-Stir-Welded AM50 and AZ31 Magnesium Alloys"
18-20/1/2015	Welding, Joining and Additive Manufacturing 2015	Tel Aviv, Israel	M. Grebenchuk, A. Avrutin and G. Ben-Hamu , "The Relation between Printing Orientation and Mechanical Properties of 3D Product"
2-3/3/2015	ICME 15	Tel Aviv, Israel	G. Ben-Hamu , "The relation between Finite element simulation and Experimental Study of advance welding process"
17-18/5/2015	The 49 th Annual Scientific Meeting of ISM	Ramat Gan, Israel	Y. Templeman, G. Ben-Hamu , L. Meshi, "Characterization of Mg-Based Friction Stir Welded Alloys"
26/1/2016	Welding, joining and Additive Manufacturing 2016	Tel Aviv, Israel	Y. Templeman, G. Ben-Hamu , L. Meshi, "Characterization of Mg-Based Friction Stir Welded Alloys"
26/1/2016	Welding, joining and Additive Manufacturing 2016	Tel Aviv, Israel	D. Panaschik and G. Ben-Hamu , "Effect of build Orientation on the mechanical properties of

			Additive Manufacturing products"	
1-2/2/2016	The 17 th Israel Materials Engineering conference	Bar Ilan Uni, Israel	G. Ben Hamu and D. Eliezer, "Wrought Mg Alloys Developed for Automotive Applications: A Corrosion Study"	
1-2/2/2016	The 17 th Israel Materials Engineering conference	Bar Ilan Uni, Israel	Y. Templeman, G. Ben Hamu , L. Meshi "The relation between Microstructural and corrosion behavior of Friction – stir – melted Mg-A1 Alloys"	
1-2/2/2016	The 17 th Israel Materials Engineering conference	Bar Ilan Uni, Israel	P. Metalnikov and G. Ben Hamu , "Characterization of Extruded Mg-A1 Mn Alloys"	

b. Organization of Conferences or Sessions

Date	Name of Conference	Place of Conference	Subject of Lecture/Discussion	Role
8-12/7/2012	The 9 th International Conference on Magnesium Alloys and their Applications	Vancouver, BC, Canada	Corrosion and Surface Treatment	Chair Person
2-6/11/2014	The 17 th International Corrosion congress	Jeju, Korea	Corrosion in Light Metals	Chair Person
18-20/1/2015	Welding, Joining and Additive Manufacturing 2015	Tel Aviv, Israel	Welding Engineering	Chair Person
2-3/3/2015	ICME 15	Tel Aviv, Israel	Advance Manufacturing Technologies	Chair Person
11-16/10/2015	The 10 th International Conference on Magnesium Alloys and their Applications (Mg 2015)	Jeju, Korea	Corrosion and Surface Treatment	Chair Person
9-10/10/2018	ICME 18	Beer-Sheva, Israel	Manufacturing	Member of the Organizing committee and Chair Person

1-5/7/2019	13 th International Conference on Advanced Computational Engineering and Experimenting (ACEX2019)	Athens, Greece	Environmental Degradation of Light Materials	Organizer and Chair Person
26/11/2019	Symposium - Technological Innovation in Machining	Tel Aviv, Israel	Machining	Head of the Organizing and Scientific Committee
27-29/1/2020	Welding, Joining and Additive Manufacturing WJAM - International Conference 2020	Ramat-Gan, Israel	Additive Manufacturing	Member of the Organizing committee, Member of the Scientific committee, Chair Person

7. Invited Lectures / colloquium Talks

Date	Place of Lecture	Name of Forum	Presentation/Comments
31/10-1/11/2014	Seoul national University	Materials Engineering Department Seminar	Presentation for M.Sc. and Ph.D student "corrosion of Magnesium Alloys – The Role of Alloying Elements"
03/09/2019	KU LEUVEN	Bio-Art EU capacity project	Presentation for the member of the project – researches from Belgium, Spain, Austria, Ukraine and Israel. "Patient-specific orthopedic implants manufactured by Additive Manufacturing"

8. Research Grants

Grants Awarded

Role in Research	Co-Researchers	Topic	Funded by/ Amount	Year
PI	---	" Effect of the welding parameters on microstructure, mechanical properties and corrosion behavior of dissimilar FSWed joints in aluminum and magnesium alloys sheets"	SCE Research Grant, 135,000 NIS	10/2012 – 9/2013
PI	---	"Corrosion Behavior and Local Potential Measurements with the Scanning Kelvin Probe Force Microscopy"	German-Israeli Foundation for scientific research and Development – GIF young scientists program 30,000 Euro Journal Paper: 29 Conference paper: 36	2013
PI	---	"Experimental study of patient-specific orthopedic implants manufactured by Additive Manufacturing"	SCE Research Grant, 145,000 NIS	10/2015 – 9/2018
PI	---	Implants base Nitinol	OCON Medical Ltd. 30,000 NIS	2016
PI	---	Hydrogen trapping and hydrogen storage of New Mg alloys	SCE Excellent Research Grant, 180,000 NIS	10/2018 – 9/2021

9. Scholarships, Awards and Prizes

Date	Name Of Award	The purpose of the Fellowship/ Reason for awarding the Prize	Amount
2011	Criteria Award	For excellent academic activity SCE, Israel	7.5% extra salary
2013	SCE President Award	For outstanding excellent- academic and research activities, SCE, Israel	---
2012-2019	Criteria Award	For excellent academic activity (each year) SCE, Israel	20% extra salary

2017, 2018	Teaching Award	For excellent in teaching in ME department, SCE, Israel	---
------------	----------------	---	-----

10. Teaching

a. courses Taught Recent Years

Year	Name of Course	Type of Course: Lecture/Seminar/Workshop/High Learn Course/Introduction Course (Mandatory)	Degree	Number of Student
2020-present	Additive Manufacturing and 3D printing	lecture	B.Sc.	10
2009-present	Science of Materials 1	lecture	B.Sc.	120
2009-present	Science of Materials 2	lecture	B.Sc.	120
2009-2012, 2017	Introduction for Materials science and Engineering for Chemical Engineering	lecture	B.Sc.	30
2010-present	Manufacturing Technology	lecture	B.Sc.	180
2010-present	Design for Manufacture	lecture	B.Sc.	50
2013, 2016, 2017	Introduction to Engineering Design 1+2	lecture	B.Sc.	50
2013, 2016, 2017	Design and Product Development 1+2	lecture	B.Sc.	50
2014-2016	Advanced topics in Strength of Materials	lecture	B.Sc.	50

b. Supervision of Graduate Students

Name of Student	Title of Thesis	Degree	Date of Completion/ in Degree	Students' Achievements
Yael Templeman	Microstructure and corrosion behavior of Friction Stir welded AM50 and AZ31 Mg Alloys	M.Sc Material Engineering Department, Ben-Gurion University	2/2016	Score: 92 Co. Advisor: Prof. L. Meshi (Dept. of Materials Engineering – BGU) Journal Paper: 29, 32 Conference paper: 36
Israel Madan	Hydrogen Generation via Solar Based Water Electrolysis with Addition of Magnesium Alloys	M.Sc. unit Energy, Ben-Gurion University	12/2017	Score: 92
Polina Metalnikov	The effect of alloying elements on microstructure and corrosion behavior of wrought Mg–Al Alloys	M.Sc Material Engineering Department, Ben-Gurion University	1/2018	Score: 95 Co. Advisor: Prof. D. Eliezer (Dept. of Materials Engineering – BGU) Journal Paper:32, 33 1 – section E Conference paper: 46
Ronen Komarian	Development of Experimental System Model of Top Line Corrosion in Gas Pipe	M.Sc. unit Energy, Ben-Gurion University	01/2020	Score: 92 Co. Advisor: Prof. D. Eliezer (Dept. of Materials Engineering – BGU) Conference paper: 50
Dror Hazan	Corrosion in underwater gas pipeline	M.Sc. unit Energy, Ben-Gurion University	03/2020	Score: 92
Polina Metalnikov	Environmental degradation of AM-fabricated structural alloys	Ph.D, Material Engineering Department, BGU	In Progress	Co. Advisor: Prof. D. Eliezer (Dept. of Materials Engineering – BGU)
Avi Mor	The role of alloying elements on the	M.Sc. Green Engineering, SCE	In Progress	

	hydrogen evaluation of Mg-Al alloy			
Avraham Brosh	The relation between alloying elements and discharge performance of Mg-Al-RE alloy as anode for Mg-Air battery	M.Sc. Green Engineering, SCE	In Progress	

11. Miscellaneous

2014 - 2017	Academic representative of the College in the capacity EU project (Erasmus+) – MMATENG
2004 – 2008	Adjunct lecturer, Department of Mechanical Engineering & Civil Engineering , Sami Shamoon College of Engineering, Beer-Sheva, Israel.
2006 – 2009	Research Assistant and Group Leader Environmental Degradation of Materials Laboratory – Prof. Dan Eliezer, Department of Materials Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
2006 – 2008	Research Assistant, Corrosion Research Center, Nano-Bio & Advanced Materials, Sami Shamoon College of Engineering, Beer-Sheva, Israel.
2006 (summer)	Visiting Scientist, Federal Institute for Materials Research & Testing (BAM) – welding division, Berlin, Germany
2005 – 2009	Secretary of NACE Israel Negev Student Section
2000 – 2003	Research Assistant, Teacher (During M.Sc), Department of Materials Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
2000	VOLKSWAGEN prize for the best undergraduate project engineering in the Materials Engineering department, Ben Gurion University of the Negev

12. Professional Experience

2011 – 8/2019	Chairman of Alumot Association – The association for Alumot School in Beer-Sheva
9/2019 - present	Vice Chairman of the Parent Committee in MAKIF ALEF (high school), Beer-Sheva

PUBLICATIONS

A. Ph.D. Dissertation

Title: "Corrosion and stress corrosion cracking of New Wrought magnesium alloys"

Date: 2008

Number of pages: 137

Language of Thesis: English

Name of University: Ben-Gurion University of the Negev

Advisor name: Prof. Dan Eliezer

Publishing the thesis in scientific journals:

The Thesis was published in:

- 6 articles in refereed journals (see article numbers: 4, 9, 10, 13, 15, 17)
- 20 articles in conference proceeding (see article numbers: 4, 6, 9 – 21, 23, 25-28)
- The thesis was presented in 12 International Conferences and in 4 Israeli Conferences

B. Articles in Refereed Journals

Published

1. G. Ben-Hamu, A. Eliezer, E. M. Gutman, Ya. Unigovski, J.Haddad, "Mechanoelectrochemical behavior of magnesium alloys", *Materials Science and Engineering A* 420, 1 (2006), 109-114 [[9](#), [I.F=4.081](#), [Q1](#)]¹
2. G. Ben-Hamu, A. Eliezer, E. M. Gutman, " Electrochemical Behavior of Magnesium Alloys Strained in Aqueous Solutions", *Corrosion Engineering Science and Technology* 41, 1 (2006) 82-86 [[2](#), [I.F=1.393](#), [Q2](#)]
3. G. Ben-Hamu, A. Eliezer, E. M. Gutman, " Electrochemical Behavior of Magnesium Alloys Strained in Buffer Solutions", *Electrochimica Acta*, 52, 1, (2006), 304-313 [[24](#), [I.F=5.383](#), [Q1](#)]
4. G. Ben-Hamu, D. Eliezer and K.S. Shin, "Influence of Si, Ca and Ag addition on the Corrosion Behavior of New Wrought Mg-Zn Alloys", *Materials Science and Technology*, 22, 10 (2006), 1213-1218 [[12](#), [I.F=1.938](#), [Q1](#)]
5. G. Ben-Hamu, D. Eliezer, A. Kaya, Y.G. Na and K.S. Shin, "Microstructure and Corrosion Behavior of Mg-Zn-Ag Alloys", *Materials Science and Engineering A* 435-436, (2006), 579-587 [[48](#), [I.F=4.081](#), [Q1](#)]

¹ [[citations](#), [Impact Factor](#), [Journal ranking](#)]

6. A. Kaya, G. Ben-Hamu, D. Eliezer, K. S. Shin and S. Kohen, "Corrosion and oxidation of alloys of the Mg-Y-Zr-REM system", *Metal Science and Heat Treatment*, 48, 11 – 12, (2006), 518-523 [7, I.F=0.379, Q3]
7. A. Kaya, D. Eliezer, G. Ben-Hamu, O. Golan, Y. G. Na and K. S. Shin, "Microstructure and corrosion resistance of alloys of the Mg-Zn-Ag system", *Metal Science and Heat Treatment*, 48, 11 – 12, (2006), 524-530 [9, I.F=0.248, Q3]
8. G. Ben-Hamu, D. Eliezer, K. S. Shin and S. Cohen, " The Relation Between Microstructure and Corrosion Behavior of Mg-Y-RE-Zr Alloys ", *Journal of Alloys and Compounds*, 431, 1, (2007), 269-276 [148, I.F=4.175, Q1]
9. G. Ben-Hamu, D. Eliezer and K. S. Shin, " The Role of Si and Ca on New Wrought Mg-Zn-Mn Alloy", *Materials Science and Engineering A* 447, 1, (2007), 35-43 [102, I.F=4.081, Q1]
10. G. Ben-Hamu, D. Eliezer, C.E. Cross and Th. Bollinghaus, "The relation between Microstructure and Corrosion behavior of GTA Welded AZ31B Magnesium Sheet", *Materials Science and Engineering A*, 452-453, (2007), 210-218 [60, I.F=4.081, Q1]
11. G. Ben-Hamu and A. Eliezer, "The Influence of Ag and Si Additions on the Electrochemical Behavior in extruded Mg-Zn Alloys ", *Israel Journal of Chemistry*, 47, 3-4, (2007), 309-317 [5, I.F=2.22, Q1]
12. A. Eliezer, O. Medlinsky, J. Haddad and G. Ben-Hamu, " Corrosion fatigue behavior of magnesium alloys under oil environments ", *Materials Science and Engineering A*, 477, 1-2, (2008), 129-136 [19, I.F=4.081, Q1]
13. G. Ben-Hamu, D. Eliezer, W. Dietzel and K. S. Shin, "Stress Corrosion Cracking of new Mg-Zn-Mn Wrought alloys containing Si", *Corrosion Science*, 50, (2008), 1505 – 1517 [48, I.F=6.355, Q1]
14. M. Ben-Haroush, G. Ben Hamu, D. Eliezer, L. Wagner, "The Relation Between Microstructure and Corrosion Behavior of AZ80 Mg Alloy Following Different Extrusion Temperatures", *Corrosion Science*, 50, 6, (2008), 1766-1778 [111, I.F=6.355, Q1]
15. G. Ben-Hamu, D. Eliezer and K. S. Shin, " The Role of Mg₂Si on the Corrosion Behavior of Wrought Mg-Zn-Mn Alloy", *Intermetallics*, 16, 7, (2008), 860-867 [44, I.F=3.353, Q1]
16. G. Ben-Hamu, D. Eliezer, K. S. Shin and L. Wagner, "Corrosion Mechanisms of New Wrought Mg-Zn Based Alloys Alloying with Si, Ca and Ag", *Corrosion Science and Technology*, 7, 3, (2008), 152-157 [4, __, __]
17. E. Barel, G. Ben Hamu, D. Eliezer, L. Wagner, " The Effect of Heat Treatment and HCF Performance on Hydrogen Trapping Mechanism in Timetal LCB Alloy" *Journal of Alloys and Compounds*, 468, 1, (2009), 77-86 [17, I.F=4.175, Q1]

18. G. Ben Hamu, D. Eliezer, L. Wagner, " The relation between Severe Plastic Deformation microstructure and corrosion behavior of AZ31 Magnesium Alloy" *Journal of Alloys and Compounds*, 468, 1-2, (2009), 222-229 [[306](#), [I.F=4.175](#), [Q1](#)]
19. V. Lisitsyn, G. Ben-Hamu, D. Eliezer, K.S. Shin, "The role of Ca microalloying on the microstructure and corrosion behavior of Mg–6Zn–Mn–(0.5–2)Si alloys", *Corrosion Science*, 51, 4, (2009), 776-784. [[40](#), [I.F=6.355](#),[Q1](#)]
20. C.E. Cross, P. Xu, D. Eliezer, and G. Ben-Hamu, "Galvanic Weld Metal–Base Metal Corrosion in AZ31 Magnesium Weldments", *Advanced Materials Research*, 95, (2010), 39-42. [[2](#), [I.F=0.87](#), [Q4](#)]
21. G. Ben-Hamu, D. Eliezer, K.S. Shin, "The Relation Between Microstructure and Corrosion Behavior of New Mg-Al-X Alloys for Transportation Application", *Advanced Materials Research*, 95, (2010), 43-46.[[1](#), [I.F=0.87](#), [Q4](#)]
22. G. Ben-Hamu, D. Eliezer, K.S. Shin, "Studies on the influence of chloride ion concentration on the corrosion behavior of ZSMX magnesium alloy", *Advanced Materials Research*, 95, (2010), 47-50.[[2](#), [I.F=0.87](#), [Q4](#)]
23. E. Barel, G. Ben-Hamu, and D. Eliezer, "Microstructure of Ti–45Al–5Nb after cathodic charging", *Advanced Materials Research*, 95, (2010), 87-90.[[_](#), [I.F=0.87](#), [Q4](#)]
24. E. Dabah, G. Ben-Hamu, V. Lisitsyn, D. Eliezer and K. S. Shin, "The influence of Ca on the corrosion behavior of new die cast Mg-Al–based alloys for elevated temperature applications", *Journal of Materials Science*, 45, 11, (2010), 3007 – 3015 [[10](#), [I.F=3.442](#), [Q1](#)]
25. V. Lisitsyn, G. Ben-Hamu, D. Eliezer and K. S. Shin, "Some particularities of the corrosion behaviour of Mg-Zn-Mn-Si-Ca alloys in alkaline chloride solutions" *Corrosion Science*, 52, 7, (2010), 2280-2290 [[21](#), [I.F=6.355](#), [Q1](#)]
26. G. Ben-Hamu, "Corrosion and Stress Corrosion Cracking of New Wrought Magnesium alloys", *Challenges of Modern Technology*, 1, 1, (2010), 79-87 [[_](#), [_](#), [Q4](#)]
27. Y Snir, Guy Ben-Hamu, Dan Eliezer, E Abramov, "Effect of compression deformation on the microstructure and corrosion behavior of magnesium alloys", *Journal of Alloys and Compounds*, 528, (2012), 84-90 [[34](#), [I.F=4.175](#), [Q1](#)]
28. G. Ben-Hamu and D. Eliezer, "Corrosion Behavior of Wrought Mg-6%Zn-1%Mn-XSi-YCa Alloy", *Materials and Corrosion*, 64, 6, (2013), 516-521. [[10](#), [I.F=1.458](#), [Q2](#)]
29. G. Ben-Hamu, "Corrosion Characterization of Magnesium Alloys – The Role of Process Parameters", *Materials Science Forum*, 783-786, (2014), 346-351. [[1](#), [I.F=0.35](#), [Q3](#)]

30. Y. Templeman, G. Ben-Hamu, L. Meshi, "Friction stir welded AM50 and AZ31 Mg alloys: Microstructural evolution and improved corrosion resistance", *Materials characterization*, 126, (2017), 86-95. [[19](#), [I.F=3.22](#), [Q1](#)]
31. G. Ben-Hamu, D. Shamir, M. Zohar, A. Burg, "Fenton reagents accelerate the corrosion reaction of Magnesium", *Journal of Coordination Chemistry*, (2018), 1-18. [, [I.F=1.685](#), [Q3](#)]
32. P. Metalnikov, G. Ben-Hamu, Y. Templeman, K.S. Shin, L. Meshi, "The relation Between Mn Additions, Microstructure and Corrosion Behavior of New Wrought Mg-5Al alloys", *Materials Characterization*, 145, (2018), 101–115. [[8](#), [I.F=3.22](#), [Q1](#)]
33. G. Ben-Hamu, P. Metalnikov, D. Eliezer, K.S. Shin "Corrosion Mechanisms of new Wrought Mg-Al based alloys Alloying with Mn, Zn and Sn", *Materials Science Forum*, 941, (2018), 1880-1885. [, [I.F=0.35](#), [Q3](#)]
34. P. Metalnikov, G. Ben-Hamu, D. Eliezer, K.S. Shin, "Role of Sn in microstructure and Corrosion Behavior of new Wrought Mg-5Al alloy" *Journal of Alloys and Compounds*, 777, (2019), 835-849. [[9](#), [I.F=4.175](#), [Q1](#)]
35. M. Zohar, D. Shamir, G. Ben-Hamu and A. Burg, "Innovative, DPN-Based Method for Analyzing the Early Stages of Mg Corrosion Under Natural Conditions", *Metals and Materials International*, (2019), 1-7. [, [I.F=1.647](#), [Q1](#)]
36. P. Metalnikov , G. Ben-Hamu, K.S. Shin, "Relation Between Zn Additions, Microstructure and Corrosion Behavior of New Wrought Mg-5Al Alloys", *Metals and Materials International*, (2019), 1-13. [, [I.F=1.647](#), [Q1](#)]
37. G. Ben-Hamu and P. Metalnikov, "Development of New Wrought Mg Alloys: Improving the Corrosion Resistance by Addition of Alloying Elements", *Diffusion Foundations*, 27, (2020), 50-60.

C. Articles in Conference Proceedings

Published

1. A. Eliezer, E.M. Gutman, P.L. Bonora, E. Abramov, Y. Unigovski, M. Andrei, G. Ben-Hamu, "Environmentally assisted fatigue fracture of magnesium alloys", **"EUROCORR 2001"**, CD proceeding, Lake Garda, Italy, 30th Sept.-4th Oct. (2001).
2. G. Ben-Hamu, A. Eliezer, A. Abramov, E.M. Gutman and Y. Unigovski "Mechanoelectrochemical Behavior of Magnesium Alloys ", **The 15th International Corrosion Congress "**, CD proceeding, Granada, Spain, September 22nd -27th (2002).

3. G. Ben-Hamu, A. Eliezer, A. Abramov, E.M. Gutman, M. Andrei and P.L. Bonora "Mechanoelectrochemical Behavior of die-cast and extrusion Magnesium Alloys "EUROCORR 2003", CD proceeding, Budapest, Hungary, 28th September - 2nd October (2003).
4. G. Ben-Hamu and D. Eliezer, "Development of New Magnesium Alloys for Stress Corrosion Applications", **EUROCORR 2004**, CD proceeding, Nice, France, September 12th – 16th, (2004).
5. G. Ben-Hamu, D. Eliezer, K. S. Shin and S. Cohen, "Corrosion and Oxidation of New Magnesium Alloys for Automotive Applications", **EUROCORR 2004**, CD proceeding, Nice, France, September 12th – 16th, (2004).
6. G. Ben-Hamu, D. Eliezer and K. S. Shin, "Corrosion Behavior of New Wrought Mg-Zn Alloys", **EUROCORR 2005**, CD proceeding, Lisbon, Portugal, September 4th – 8th, (2005).
7. A.A. Kaya, G. Ben-Hamu, D. Eliezer, K. S. Shin and S. Cohen, "Corrosion and Oxidation of Mg-Y-RE-Zr Alloys", **Magnesium - broad horizons - The first Russia International Conference**, Moscow, Russia, November 29th - December 1st (2005) - Paper No. 6 section B
8. A.A. Kaya, D. Eliezer, G. Ben-Hamu, O. Golan, Y.G. Na and K.S. Shin, "Microstructure and corrosion behavior of Mg-Zn-Ag alloy", **Magnesium - broad horizons - The first Russia International Conference**, Moscow, Russia, November 29th - December 1st (2005). – Paper No. 7 section B
9. D. Eliezer, G. Ben Hamu, C.E.Cross and Th. Bollinghaus, "Effect of Grain Refinement on the Strength and Corrosion of Magnesium alloy AZ31 by Severe Plastic Deformation", Magnesium Technology 2006, Edited by AA. Luo, NR Neelameggham and RS. Beaks, **TMS 2006 annual meeting**, San Antonio, Texas, USA, pp. 216-264, March 12th-16th, 2006.
10. G. Ben-Hamu, D. Eliezer, K. S. Shin, " The Role of Second particles on new wrought Mg-Zn-Mn based alloys ", **Second International Conference on Magnesium (ICM-2006)**, CD proceeding, Beijing, China, June 26th -28th (2006).
11. G. Ben-Hamu, D. Eliezer, C.E. Cross and Th. Bollinghaus, " Microstructure and Corrosion resistance of TIG Welded AZ31 Magnesium Sheet ", **Second International Conference on Magnesium (ICM-2006)**, CD proceeding, Beijing, China, June 26th -28th (2006).
12. G. Ben-Hamu, D. Eliezer and K. S. Shin, "The role of alloying elements on the Corrosion Behavior of new Wrought Mg-Zn Based Alloys", Proceeding of The **Fourth International Conference Mathematical Modeling and Computer Simulation of Materials Technologies (MMT-2006)**, College of Judea and Samaria, Ariel, Israel, pp. 3-17 – 3-24, September 11th -15th, 2006
13. G. Ben-Hamu, D. Eliezer and K. S. Shin, " Characterization of New Wrought Mg-Zn-Si Based Alloys by Scanning Kelvin Probe Force Microscopy ",

EUROCORR 2006, CD proceeding, Maastricht, The Netherlands, September 24th – 28th, (2006)

14. G. Ben-Hamu, D. Eliezer " Effect of Severe Plastic Deformation on the Microstructure and Corrosion Behavior of AZ31 Magnesium Alloy ", **EUROCORR 2006**, CD proceeding, Maastricht, The Netherlands, September 24th – 28th, (2006)
15. G. Ben-Hamu, D. Eliezer, C.E. Cross and Th. Bollinghaus " Volta potential of second phase particles in TIG Welded AZ31 Magnesium Sheet ", **EUROCORR 2006**, CD proceeding, Maastricht, The Netherlands, September 24th – 28th, (2006)
16. G. Ben-Hamu, D. Eliezer and K. S. Shin, "The Role of Si and Ca on New Wrought Mg-Zn-Mn Based Alloys", Proceeding of the **7th International Conference on Magnesium Alloys and their Applications**, Edited by K.U. Kainer, Dresden, Germany, pp. 769-774, November 6th – 9th, 2006.
17. C.E. Cross, G. Ben-Hamu, D. Eliezer, and P. Xu, " Corrosion-Fatigue of AZ31 Wrought Magnesium Weldments", Proceeding of the **7th International Conference on Magnesium Alloys and their Applications**, Edited by K.U. Kainer, Dresden, Germany, pp. 727-733, November 6th – 9th, 2006.
18. G. Ben Hamu, D. Eliezer and K. S. Shin, "The Relation Between Microstructure and Corrosion Properties of Extruded Mg-Zn Base Alloys", Magnesium Technology 2007, Edited by R.S. Beaks, A.A. Luo, N.R. Neelameggham, M.O. Pehguleryuz, **TMS 2007 annual meeting**, Orlando, Florida, USA, pp. 317-320, February 25th -March 1st, 2007.
19. G. Ben Hamu and D. Eliezer, "Local Potential Measurements with the Scanning Kelvin Probe Force Microscopy", **NACE Corrosion 2007**, CD proceeding ,Nashville, Tennessee, USA, March 11th -15th (2007).
20. G. Ben Hamu, D. Eliezer, K. S. Shin and L. Wagner, "Corrosion Mechanisms of New Wrought Mg-Zn Based Alloys Alloying with Si, Ca and Ag ", **International Corrosion Engineering Conference (ICEC)**, Seoul, Korea, May 20th – 24th (2007). Paper No. 16 section B.
21. C.E. Cross, P. Xu, D. Eliezer, and G. Ben-Hamu, "Galvanic Weld Metal–Base Metal Corrosion in AZ31 Magnesium Weldments", Proceeding of the **3rd (ISRAEL) International Conference on Corrosion and Advanced Materials in Industry**, Edited by A. Eliezer, Beer-Sheva, Israel, May 29th – 31, (2007) – Paper No. 20 section B
22. G. Ben-Hamu, D. Eliezer, K.S. Shin, "The Relation Between Microstructure and Corrosion Behavior of New Mg-Al-X Alloys for Transportation Application", Proceeding of the **3rd (ISRAEL) International Conference on Corrosion and Advanced Materials in Industry**, Edited by A. Eliezer, Beer-Sheva, Israel, May 29th – 31, (2007) – Paper No. 21 section B
23. G. Ben-Hamu, D. Eliezer, K.S. Shin, "Studies on the influence of chloride ion concentration on the corrosion behavior of ZSMX magnesium alloy", Proceeding of the **3rd (ISRAEL) International Conference on Corrosion and Advanced**

Materials in Industry, Edited by A. Eliezer, Beer-Sheva, Israel, May 29th – 31, (2007) – Paper No. 22 section B

24. E. Barel, G. Ben-Hamu, and D. Eliezer, "Microstructure of Ti-45Al-5Nb after cathodic charging", Proceeding of the **3rd (ISRAEL) International Conference on Corrosion and Advanced Materials in Industry**, Edited by A. Eliezer, Beer-Sheva, Israel, May 29th – 31, (2007) – Paper No. 23 section B
25. G. Ben Hamu, D. Eliezer and L. Wagner" The Relation Between Processing, Microstructure and Corrosion Behavior of Wrought Mg Alloys", **EUROCORR 2007**, CD proceeding , Freiburg, Germany, September 9th – 13th, (2007)
26. G. Ben Hamu, D. Eliezer and K.S. Shin, "The Relation Between Processing, Microstructure and Corrosion Behavior of New Mg Alloys for Transportation Application", **Corrosion Control 007**, CD proceeding, Sydney, Australia, November 25th-28th, (2007)
27. G. Ben Hamu, "The relation Between Processing, Microstructure and Localized Corrosion of Mg alloys for Automotive Applications", **NACE Corrosion 2008**, CD proceeding ,New Orleans, Louisiana, USA, March 16th -20th (2008).
28. G. Ben Hamu, D. Eliezer and L. Wagner, "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys", **The 4th International Conference on Nanomaterials by Severe Plastic deformation (NanoSPD4)**, CD proceeding, Goslar, Germany, August 18th-22nd, (2008)
29. G. Ben Hamu, D. Eliezer and L. Wagner" Hydrogen Tapping Mechanism in TIMETAL LCB Alloy following High Cycle Fatigue Performance", **EUROCORR 2008**, CD proceeding , Edinburgh, UK, September 7th – 11th, (2008)
30. G. Ben Hamu, "Stress Corrosion Cracking of Wrought Mg-Zn-Mn-Si alloys", **NACE Corrosion 2009**, CD proceeding ,Atlanta, Georgia, USA, March 22th -26th (2009).
31. G. Ben Hamu, "Corrosion and Stress Corrosion Cracking of new wrought Magnesium alloys", **The 5th PhD Students and Young Scientist Conference (PhDS&YSC)**, Warsaw university of technology (WUT), Poland, September 13th-16th, (2010) - Paper No. 26 section B
32. G. Ben Hamu, "Local potential measurements with the SKPFM on Wrought Magnesium Alloys", **NACE Corrosion 2011**, CD proceeding, Houston, Texas, USA, March 13th-17th (2011).
33. G. Ben Hamu and A. Eliezer, "The Relation Between Microstructure and Corrosion Behavior of FSW magnesium alloys", Proceeding of the **9th International Conference on Magnesium Alloys and their Applications**, Edited by W.J. Poole and K.U. Kainer, Vancouver, Canada, pp. 281- 286, July 8th-12th, (2012).

34. G. Ben-Hamu, A. Eliezer and J. Haddad, "Corrosion Characterization of Magnesium Alloys by TEM and SKPFM Studies", **NACE Corrosion 2013**, CD proceeding, Orlando, Florida, USA, March 17th -21st (2013).
35. G. Ben-Hamu, "Corrosion Characterization of Magnesium Alloys – The Role of Process Parameters", **THERMEC' 2013**, Las Vegas, NV, USA, December 2nd -6th (2013). - Paper No. 29 section B
36. G. Ben-Hamu and A. Eliezer, "Stress Affects Corrosion Initiation of Magnesium Alloys", **NACE European Corrosion Conference & Expo 2014**, CD proceeding ,San Lorenzo de El Escorial de Madrid, Spain, May 14th-16th, (2014)
37. G. Ben-Hamu, D. Eliezer and K.S. Shin, "Corrosion of Wrought Mg-Zn Alloys – The Role of Alloying Elements", **The 17th International Corrosion Congress**, CD proceeding, Jeju, Korea, November 2nd- 6th, (2014).
38. G. Ben-Hamu, "Can Robots Walk on the Dead Sea – Salts Environment?", **The 17th International Corrosion Congress**, CD proceeding , Jeju, Korea, November 2nd- 6th, (2014).
39. G. Ben Hamu, D. Eliezer and K. S. Shin, "Corrosion Behavior of Newly Developed Wrought Mg Alloys: A Brief Review", **The 10th International Conference on Magnesium Alloys and Their Applications (Mg 2015)**, CD proceeding, Jeju, Korea, October 11th- 16th, (2015)
40. G. Ben Hamu and A. Burg, "The Synergetic Effect of Fenton Reaction to Corrosion of Magnesium Implants", **The 10th International Conference on Magnesium Alloys and Their Applications (Mg 2015)**, CD proceeding, Jeju, Korea, October 11th- 16th, (2015)
41. Y. Templeman, G. Ben Hamu, L. Meshi, "The Relation between Microstructure and Corrosion Behavior of FSW Mg-Al Alloys", **The 10th International Conference on Magnesium Alloys and Their Applications (Mg 2015)**, CD proceeding, Jeju, Korea, October 11th- 16th, (2015)
42. G. Ben-Hamu, "Patient – Specific Orthopedic Implants manufactured by Additive Manufacturing – A corrosion study", **NACE corrosion 2017**, CD proceeding, New Orleans, Louisiana, USA, March 26th-30th (2017)
43. G Ben-Hamu, A Burg, "The role of Fenton Reaction in biodegradable Magnesium and its alloys", **NACE corrosion 2017**, CD proceeding, New Orleans, Louisiana, USA, March 20th-30th (2017)
44. G. Ben-Hamu, "Patient-specific orthopedic implants manufactured by Additive Manufacturing – The Role of Built Orientation", **12th International Conference on Advanced Computational Engineering and Experimenting**, CD proceeding, Amsterdam, The Netherlands, July 1st – 5th, (2018)
45. G. Ben-Hamu, "Corrosion Mechanisms of new Wrought Mg-Al based alloys Alloying with Mn, Zn and Sn", **THERMEC 2018**, Paris, France, July 8th – 13th, (2018) - Paper No. 34 section B

46. P. Matalnikov, G. Ben-Hamu and D. Eliezer, "Wrought Magnesium Alloys Design Strategy – Base on Corrosion Studies", Proceeding of the **The 11th International Conference on Magnesium Alloys and Their Applications**, Edited by Z. Fan and C. Mendis, Beaumont Estate, Old Windsor, UK, pp. 259-265, July 24th – 27th, (2018)
47. G. Ben Hamu, D. Shamir, M. Zohar, A. Burg, "Acceleration of the corrosion reaction of magnesium by Fenton reagents", **5th EuChemS Inorganic Chemistry Conference**, CD proceeding, Moscow, June 24th -28th, (2019)
48. G. Ben-Hamu, "Development of new wrought Mg alloys: improving the corrosion resistance by addition of alloying elements", **ACEX2019**, CD proceeding , Athens, July 1st – 5th, (2019)
49. P. Metalnikov, D. Eliezer, G. Ben-Hamu, "Environmental Degradation of Additive Manufactured Ti-6Al-4V Alloy", **European Congress and Exhibition on Advanced Materials and Processes (EUROMAT)**, CD proceeding , Stockholm, Sweden, September 1st – 5th, (2019)
50. R. Komerian, E. Grinberg, G. Ben-Hamu, D.Eliezer, S. Samuha, "The Role of applied pressure on the susceptibility of the AISI 1020 pipeline steel to stress corrosion cracking ", **European Congress and Exhibition on Advanced Materials and Processes (EUROMAT)**, CD proceeding ,Stockholm, Sweden, September 1st – 5th, (2019)

D. Other works connected with my Scholarly Field

- Develop unique curricula for the new program track "Natural Gas" (beginning October 2017) – based on the needs of the national economy. The program is studied in collaboration with the Oil and Gas Engineering Department at the University of Nicosia.
- Develop unique curricula for the new program track "BIO-TECH", (beginning October 2018). This is a joint program track for students from the departments of Mechanical and Chemical Engineering.

E. Submitted Publication

1. P. Metalnikov, G. Ben-Hamu, K.S. Shin, "Effect of Ca addition on corrosion behavior of wrought AM60 magnesium alloy in alkaline solutions" *submitted to Journal of Alloys and Compounds*.
2. P. Metalnikov, D. Eliezer, G. Ben-Hamu, E. Tal-GutelmacherK.S. Shin, "Hydrogen interactions with EBM Ti-6Al-4V" *submitted to Materials Today Communications*.