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. <u>Higher Education</u>:

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. <u>Academic Ranks and Tenure in Institutes of Higher Education</u>

Dates	Name of Institution and Department	Rank/Position
Since October 2015	Sami Shamoom 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 Shamoom 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 -	Sami Shamoon College of	Head of the Department
Present	Engineering, Department of	
	Mechanical Engineering - Ashdod	
	campus	
	Sami Shamoon College of Engineering	Engineers to the Community
2015 -		– "MEANDESIM
2019		LAKHILA" –
		Committee member
2011 -	Sami Shamoon College of	B.Sc. committee –
Present	Engineering, Department of	Chairman
	Mechanical Engineering	
2009 -	Sami Shamoon College of	Manufacture Technology &
2013	Engineering, Department of	Engineering projects
	Mechanical Engineering	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	Place of	Subject of	Role
	Conference	Conference	Lecture/Discussion	
30/9-	EUROCORR	Lake Garda,	A. Eliezer, E.M. Gutman,	
4/10/2001	2001	Italy	P.L. Bonora, E. Abramov, Y.	
			Unigovski, M. Andrei, G.	
			Ben-Hamu	
			"Environmentally assisted	
			fatigue fracture of	
			magnesium alloys"	
22-	The 15 th	Granada,	G. Ben-Hamu, A. Eliezer,	
27/9/2002	International	Spain	A. Abramov, E.M. Gutman	
	Corrosion		and Y. Unigovski	
	Congress		"Mechanoelectrochemical	
			Behavior of Magnesium	
			Alloys"	
28/9-	EUROCORR	Budapest,	G. Ben-Hamu, A. Eliezer,	
2/10/2003	2003	Hungary	A. Abramov, E.M. Gutman,	
			M. Andrei and P.L. Bonora	
			"Mechanoelectrochemical	
			Behavior of die-cast and	
			extrusion Magnesium	
			Alloys"	

12	TIDOCODO			ı
12-	EUROCORR	Nice, France	G. Ben-Hamu and D.	
16/9/2004	2004		Eliezer	
			"Development of New	
			Magnesium Alloys for Stress	
			Corrosion Applications"	
12-	EUROCORR	Nice, France	G. Ben-Hamu, D. Eliezer,	
16/9/2004	2004	,	K. S. Shin and S. Cohen	
			"Corrosion and Oxidation of	
			New Magnesium Alloys for	
			Automotive Applications"	
4.9/0/2005	ELIDOCODD	T tole on		
4-8/9/2005	EUROCORR	Lisbon,	G. Ben-Hamu, D. Eliezer	
	2005	Portugal	and K. S. Shin	
			"Corrosion Behavior of New	
			Wrought Mg-Zn Alloys"	
29/11-	Magnesium –	Moscow,	A.A. Kaya, D. Eliezer, G.	
1/12/2005	broad	Russia	Ben-Hamu, O. Golan, Y.G.	
	Horizons –		Na and K.S. Shin	
	The first		"Microstructure and	
	Russia		corrosion behavior of Mg-	
	International		Zn-Ag Alloy"	
	Conference			
20/11		Magazzz	A A Voue C Der Herre	
29/11-	Magnesium –	Moscow,	A.A. Kaya, G. Ben-Hamu ,	
1/12/2005	broad	Russia	D. Eliezer, K. S. Shin and S.	
	Horizons –		Cohen	
	The first		"Corrosion and Oxidation of	
	Russia		Mg-Y-RE-Zr Alloys"	
	International			
	Conference			
12-	Magnesium	San Antonio,	D. Eliezer, G. Ben Hamu,	
16/3/2006	Technology -	Texas, USA	C.E.Cross and Th.	
10/0/2000	TMS 2006	101100, 0011	Bollinghaus	
	11110 2000		"Effect of Grain Refinement	
			on the Strength and	
26	0 1	D	Corrosion of Magnesium"	
26-	Second	Beijing,	G. Ben-Hamu , D. Eliezer,	
28/6/2006	International	China	K. S. Shin	
	Conference		"The Role of Second	
	on		particles on new wrought	
	Magnesium		Mg-Zn-Mn based alloys"	
	(ICM-2006)			
26-	Second	Beijing,	G. Ben-Hamu, D. Eliezer	
28/6/2006	International	China	"Microstructure and	
10, 0, 10000	Conference		Corrosion resistance of TIG	
	on		Welded AZ31 Magnesium	
	Magnesium		sheet"	
	U		511001	
11	(ICM-2006)			
11-	Fourth	College of	G. Ben-Hamu, D. Eliezer	
15/9/2006	International	Judea and	and K. S. Shin,	
	Conference	Samaria,	"The role of alloying	
	Mathematical	Ariel, Israel	elements on the Corrosion	
	Modeling and		Behavior of new Wrought	
	Computer		Mg-Zn Based Alloys"	
				1
	Simulation of			
	Simulation of Materials			

	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	NACE	Noch-11-	C Don Hame and D	
11-	NACE	Nashville,	G. Ben Hamu and D.	
15/3/2007	Corrosion	Tennessee,	Eliezer	
	2007	USA	"Local Potential Massurements with the	
			Measurements with the	
			Scamming Kelvin Probe	
20	т	0 1 **	force Microscopy"	
20-	International	Seoul, Korea	G. Ben Hamu , D. Eliezer,	
24/5/2007	Corrosion		K. S. Shin and L. Wagner	
	Engineering		"Corrosion Mechanisms of	
	Conference		New Wrought Mg-Zn Based	
	(ICEC)		Alloys Alloying With Si, Ca	
			and Ag"	<u> </u>
9-	EUROCORR	Freiburg,	G. Ben Hamu, D. Eliezer	
13/9/2007	2007	Germany	and L. Wagner "The	
			Relation Between	
			Processing, Microstructure	
			and Corrosion Behavior of	
			Wrought Mg Alloys"	
25-	Corrosion	Sydney,	G. Ben Hamu, D. Eliezer	
28/11/2007	Control 007	Australia	and K.S. Shin "The Relation	
			Between Processing,	
			Microstructure and	
			Corrosion Behavior of New	
			Mg Alloys for	
			Transportation Application"	
16-	NACE	New	G. Ben Hamu,	
20/3/2008	Corrosion	Orleans,	"The relation Between	
	2008	Louisiana,	Processing, Microstructure	
		USA	and Localized Corrosion of	
			Mg alloys for Automotive	
	1			1
18-			Applications"	
10-	The 4 th	Goslar,		
18-22/8/2008	The 4 th International	Goslar, Germany	Applications"	
			Applications" G. Ben Hamu, D. Eliezer	
	International		Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of	
	International Conference		Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the	
	International Conference on Nanomaterials		Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of	
	International Conference on		Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of	
	International Conference on Nanomaterials by Severe		Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of	
	International Conference on Nanomaterials by Severe Plastic deformation		Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of	
	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4)	Germany	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys"	
22/8/2008	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4) EUROCORR	Germany Edinburgh,	Applications" G. Ben Hamu , D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu , D. Eliezer	
22/8/2008	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4)	Germany	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu, D. Eliezer and L. Wagner	
22/8/2008	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4) EUROCORR	Germany Edinburgh,	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu, D. Eliezer and L. Wagner "Hydrogen Tapping	
22/8/2008	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4) EUROCORR	Germany Edinburgh,	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu, D. Eliezer and L. Wagner "Hydrogen Tapping Mechanism in TIMETAL	
22/8/2008	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4) EUROCORR	Germany Edinburgh,	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu, D. Eliezer and L. Wagner "Hydrogen Tapping Mechanism in TIMETAL LCB Alloy following High	
22/8/2008 7- 11/9/2008	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4) EUROCORR 2008	Germany Edinburgh, UK	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu, D. Eliezer and L. Wagner "Hydrogen Tapping Mechanism in TIMETAL LCB Alloy following High Cycle Fatigue Performance"	
22/8/2008 7- 11/9/2008 22-	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4) EUROCORR 2008	Germany Edinburgh, UK Atlanta,	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu, D. Eliezer and L. Wagner "Hydrogen Tapping Mechanism in TIMETAL LCB Alloy following High Cycle Fatigue Performance" G. Ben Hamu,	
22/8/2008 7- 11/9/2008	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4) EUROCORR 2008	Germany Edinburgh, UK Atlanta, Georgia,	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu, D. Eliezer and L. Wagner "Hydrogen Tapping Mechanism in TIMETAL LCB Alloy following High Cycle Fatigue Performance" G. Ben Hamu, "Stress Corrosion Cracking	
22/8/2008 7- 11/9/2008 22-	International Conference on Nanomaterials by Severe Plastic deformation (NanoPD4) EUROCORR 2008	Germany Edinburgh, UK Atlanta,	Applications" G. Ben Hamu, D. Eliezer and L. Wagner "Effects of Grain Refinement on the Strength and Corrosion of Magnesium Alloys" G. Ben Hamu, D. Eliezer and L. Wagner "Hydrogen Tapping Mechanism in TIMETAL LCB Alloy following High Cycle Fatigue Performance" G. Ben Hamu,	

13-	The 5 th PhD	Warsaw	C. Don Homy	
15-16/9/2010			G. Ben Hamu , "Corrosion and Stress	
10/9/2010	students and Young	university of technology	Corrosion Cracking of new	
	Scientist	(WUT),	wrought Magnesium Alloys"	
	Conference	Poland	wrought Wraghesium Anoys	
	(PhD&YSC)	1 oland		
13-	NACE	Houston,	G. Ben Hamu,	
17/3/2011	Corrosion	Texas	"Local potential	
	2011		measurements with the	
			SKPFM on Wrought	
			Magnesium Alloys"	
8-	9 th	Vancouver,	G. Ben Hamu and A Eliezer,	
12/7/2012	International	Canada	"The relation Between	
	Conference		Microstructure and corrosion	
	on		Behavior of FSW	
	Magnesium		Magnesium Alloys"	
	alloys and			
	their			
17-21/2013	Applications NACE	Onlanda	C Bon Homy A Elister	
17-21/2013	NACE Corrosion	Orlando, Florida	G. Ben Hamu, A. Eliezer and J. Haddad,	
	2013	FIORIda	"Corrosion Characterization	
	2013		of Magnesium Alloys by	
			TEM and SKPFM Studies"	
	THERMEC'	Las Vegas,	G. Ben Hamu,	Invited
2-	2013	NV, USA	"Corrosion	Speaker
- 6/12/20013	-010		Characterization of	Speaker
			Magnesium Alloys – The	
			Role of Process	
			Parameters"	
14-	NACE	San Lorenzo	G. Ben Hamu and A Eliezer,	
16/5/2014	European	de El	"Stress Affects corrosion	
	Corrosion	Escorial de	Initiation of Magnesium	
	Conference	Madrid,	Alloys"	
	& Expo 2014	Spain		
2-	The 17 th	Jeju, Korea	G. Ben Hamu, D. Eliezer	Invited
6/11/2014	Internationa		and K.S. Shin,	Speaker
	l Corrosion		"Corrosion of Wrought	
	congress		Mg-Zn Alloys – The Role of Alloying Elements"	
2-	The 17 th	Jeju, Korea	G. Ben Hamu,	
6/11/2014		Juju, Kolta	"Can Robots Walk on the	
0/11/2017	I International			
	International Corrosion			
	Corrosion		Dead Sea – Salts	
	Corrosion congress	Jeju, Korea	Dead Sea – Salts Environment?"	
11-	Corrosion congress The 10 th	Jeju, Korea	Dead Sea – Salts Environment?" G. Ben Hamu, D. Eliezer	
	Corrosion congress	Jeju, Korea	Dead Sea – Salts Environment?" G. Ben Hamu, D. Eliezer and K.S. Shin "Corrosion	Kevnote
11-	Corrosion congress The 10 th Internationa	Jeju, Korea	Dead Sea – Salts Environment?" G. Ben Hamu, D. Eliezer	Keynote Speaker
11-	Corrosion congress The 10 th Internationa I Conference	Jeju, Korea	Dead Sea – Salts Environment?" G. Ben Hamu, D. Eliezer and K.S. Shin "Corrosion Behavior of Newly	Keynote Speaker
11-	Corrosion congress The 10 th Internationa I Conference on	Jeju, Korea	Dead Sea – Salts Environment?" G. Ben Hamu, D. Eliezer and K.S. Shin "Corrosion Behavior of Newly Developed Wrought Mg	•
11-	Corrosion congress The 10 th Internationa I Conference on Magnesium Alloys and their	Jeju, Korea	Dead Sea – Salts Environment?" G. Ben Hamu, D. Eliezer and K.S. Shin "Corrosion Behavior of Newly Developed Wrought Mg	•
11-	Corrosion congress The 10 th Internationa I Conference on Magnesium Alloys and	Jeju, Korea	Dead Sea – Salts Environment?" G. Ben Hamu, D. Eliezer and K.S. Shin "Corrosion Behavior of Newly Developed Wrought Mg	•

11-	th			
	The 10 th	Jeju, Korea	G. Ben Hamu and	
16/10/2015	International		A. Burg,	
	Conference		"The Synergetic Effect of	
	on		Fenton Reaction to Corrosion	
	Magnesium		of Magnesium Implants"	
	Alloys and			
	their			
	Applications			
	^ 			
11	(MG 2015)	T · TZ		
11-	The 10 th	Jeju, Korea	Y. Templeman, G. Ben	
16/10/2015	International		Hamu and L. Meshi	
	Conference		"The Relation between	
	on		Microstructure and Corrosion	
	Magnesium		Behavior of FSW Mg-Al	
	Alloys and		Alloys"	
	their			
	Applications			
	(MG 2015)			
26-	NACE	New	G. Ben Hamu,	
30/3/2017	Corrosion	Orleans, LA,	"Patient specific orthopedic	
-	2017	USA	implants manufactured by	
			Additive manufacturing – A	
			Corrosion Study"	
	NACE	New	G. Ben Hamu, A. Burg,	
26-	Corrosion	Orleans, LA,	"The role of Fenton Reaction	
20-30/3/2017	2017	USA		
30/3/2017	2017	USA	in biodegradable Magnesium	
17	D unga sa s	These 1	and its alloys"	
17-	European	Thessaloniki,	P. Metalnikov and G. Ben	
22/9/2017	Congress and	Greece	Hamu,	
	Exhibition		"The effect of alloying	
	on Advanced		elements on microstructure	
	Materials		and corrosion behavior of	
	and		new wrought Mg-5Al-xMn	
	Processes		alloys"	
	(EUROMAT			
	, 2017)	1		
	, 2017)			
17-	European	Thessaloniki,	P. Metalnikov and	
17- 22/9/2017		Thessaloniki, Greece	P. Metalnikov and G. Ben Hamu,	
	European			
	European Congress and		G. Ben Hamu,	
	European Congress and Exhibition		G. Ben Hamu , "The effect of Mn additions	
	European Congress and Exhibition on Advanced		G. Ben Hamu , "The effect of Mn additions on microstructure and corrosion behavior of new	
	European Congress and Exhibition on Advanced Materials and		G. Ben Hamu , "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn	
	European Congress and Exhibition on Advanced Materials and Processes		G. Ben Hamu , "The effect of Mn additions on microstructure and corrosion behavior of new	
	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT		G. Ben Hamu , "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn	
22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017)	Greece	G. Ben Hamu , "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys"	
	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017) 12th	Greece Amsterdam,	 G. Ben Hamu, "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys" G. Ben-Hamu, "Patient- 	Invited
22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017) 12th Internationa	Greece Amsterdam, The	 G. Ben Hamu, "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys" G. Ben-Hamu, "Patient- specific orthopedic implants 	Invited
22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017) 12 th Internationa I Conference	Greece Amsterdam,	 G. Ben Hamu, "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys" G. Ben-Hamu, "Patient- specific orthopedic implants manufactured by Additive 	Invited Speaker
22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017) 12 th Internationa I Conference on	Greece Amsterdam, The	 G. Ben Hamu, "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys" G. Ben-Hamu, "Patient- specific orthopedic implants manufactured by Additive Manufacturing – The Role of 	
22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017) 12 th Internationa I Conference on Advanced	Greece Amsterdam, The	 G. Ben Hamu, "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys" G. Ben-Hamu, "Patient- specific orthopedic implants manufactured by Additive 	
22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017) 12 th Internationa I Conference on Advanced Computatio	Greece Amsterdam, The	 G. Ben Hamu, "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys" G. Ben-Hamu, "Patient- specific orthopedic implants manufactured by Additive Manufacturing – The Role of 	
22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017) 12 th Internationa I Conference on Advanced Computatio nal	Greece Amsterdam, The	 G. Ben Hamu, "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys" G. Ben-Hamu, "Patient- specific orthopedic implants manufactured by Additive Manufacturing – The Role of 	
22/9/2017	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT , 2017) 12 th Internationa I Conference on Advanced Computatio	Greece Amsterdam, The	 G. Ben Hamu, "The effect of Mn additions on microstructure and corrosion behavior of new wrought Mg-5Al-xMn alloys" G. Ben-Hamu, "Patient- specific orthopedic implants manufactured by Additive Manufacturing – The Role of 	

	Experimenti			
	ng (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	13 th Internationa I Conference on Advanced Computatio nal Engineering and Experimenti ng (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 (EUROMA T)	Stockholm, Sweden	P. Metalnikov, D. Eliezer, G. Ben-Hamu , "Environmental Degradation of Additive Manufactured Ti-6Al-4V Alloy"	

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

Israeli Conferences

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

24-25/12/2003	The 11 th Israel	Technion	G. Ben-Hamu, D. Eliezer	
24-23/12/2003	Materials	Haifa, Israel	and S. Cohen	
	Engineering	Hund, Israel	"Corrosion of Mg-Zr-RE	
	Conference		Alloys"	
24-25/12/2003	The 11 th Israel	Technion	S. Cohen, D. Eliezer and	
2123/12/2003	Materials	Haifa, Israel	G. Ben-Hamu	
	Engineering	114114, 151401	"The correlation Between	
	Conference		Zirconium Morphology	
			after Aging Treatment	
			and the corrosion	
			Resistance of New MRI	
			Alloys"	
24-25/12/2003	The 11 th Israel	Technion	A. Eliezer, Y. Zafrir, O.	
	Materials	Haifa, Israel	Raz, G. Ben-Hamu , Y.	
	Engineering		Unigovski, E.M. Gutman,	
	Conference		Z. Koran and J. Haddad	
			"Corrosion Behavior of	
			Semisolid Magnesium	
			Alloys"	
13/5/2004	6 th Biannual	Carmiel,	G. Ben-Hamu, D. Eliezer	
	Conference of	Israel	and S. Cohen	
	the Corrosion		The Methods of New	
	Forum NACE		"Developed Magnesium	
	Israel		Alloys for Stress	
1.2/6/2005	The Course 1	Dara Chara	Corrosion Applications"	
1-2/6/2005	The Second	Beer-Sheva,	G. Ben-Hamu, D. Eliezer	
	Israel Conference on	Israel	and K.S. Shin "The influence of Si and	
	corrosion		Ag addition on the	
	Processes &		Corrosion Behavior of	
	Advanced		New Wrought Mg-Zn	
	Materials		Alloys"	
	(CAMPI 2005)		1 moys	
1-2/6/2005	The Second	Beer-Sheva,	Z. Bareket, A. Ben Artzy,	
	Israel	Israel	A. Shtechman, G. Ben-	
	Conference on		Hamu and D. Eliezer	
	corrosion		"The Effect of severe	
	Processes &		Plastic Deformation on	
	Advanced		the Mechanical and	
	Materials		Corrosion Behavior of	
	(CAMPI 2005)		light Metals"	
1-2/6/2005	The Second	Beer-Sheva,	L. Marom, E. Abir, G.	
	Israel	Israel	Ben - Hamu and D.	
	Conference on		Eliezer	
	corrosion		"The Influence of	
	Processes &		Chloride ion	
	Advanced Materials		Concentration and	
			Geometry on the Corrosion Behavior of	
	(CAMPI 2005)			
			Mg-Al-X Die-Cast Alloys"	
1-2/6/2005	The Second	Beer-Sheva,	O. Gonen, G. Ben –	
1-2/0/2003	Israel	Israel	Hamu and D. Eliezer	
	Conference on	-51401		
L			1	L]

	corrosion		"The influence of second	
	Processes &		Phases on the Stress	
	Advanced		corrosion Behavior of	
	Materials		Mg-Al-X Die-Cast	
	(CAMPI 2005)		Alloys"	
1-2/6/2005	The Second	Beer-Sheva,	S. Cohen, G. Ben-Hamu	
	Israel	Israel	and D. Eliezer "Corrosion	
	Conference on		and Oxidation of Mg-Y-	
	corrosion		Re-Zr Alloys"	
	Processes &			
	Advanced			
	Materials			
	(CAMPI 2005)			
1-2/3/2006	The 12 th Israel	Beer-Sheva,	G. Ben-Hamu, D. Eliezer	
1 2/0/2000	Materials	Israel	and K. S. Shin	
	Engineering	151401	"Corrosion Mechanisms	
	Conference		of New Wrought Mg-Zn-	
	Conterence		Si-Ca Alloys by Scanning	
			Kelvin Probe Force	
			Microscopy"	
1-2/3/2006	The 12 th Israel	Door Chorro		
1-2/3/2000	Materials	Beer-Sheva, Israel	G. Ben-Hamu , D. Eliezer	
		Israel	and A. Kaya "The Relation between	
	Engineering			
	Conference		Microstructure and	
			Corrosion Behavior of	
	- 44 -		Magnesium Alloys"	
29-31/5/2007	3 rd conference	Beer-Sheva,	G. Ben-Hamu and D.	
29-31/5/2007	on corrosion	Beer-Sheva, Israel	Eliezer,	
29-31/5/2007	on corrosion and Advanced	,	Eliezer, "Processing and	
29-31/5/2007	on corrosion and Advanced Materials in	,	Eliezer, "Processing and Characterization of New	
29-31/5/2007	on corrosion and Advanced Materials in Industry	,	Eliezer, "Processing and	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI-	,	Eliezer, "Processing and Characterization of New	
29-31/5/2007	on corrosion and Advanced Materials in Industry	,	Eliezer, "Processing and Characterization of New	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007)	,	Eliezer, "Processing and Characterization of New	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI-	,	Eliezer, "Processing and Characterization of New	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007)	Israel	Eliezer, "Processing and Characterization of New Magnesium Alloys "	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference	Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D.	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion	Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced	Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner,	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in	Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry	Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-	Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-	Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic	
	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-	Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys"	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI- 2007)	Israel Beer-Sheva, Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys" O. Burg, G. Ben–Hamu,	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference	Israel Beer-Sheva, Israel	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys"	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI- 2007) ^{3rd} conference on corrosion and Advanced Materials in Industry (CAMPI- 2007) ^{3rd} conference on corrosion and Advanced	Israel Beer-Sheva, Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys" O. Burg, G. Ben–Hamu , M. Ben-Haroush and D. Eliezer,	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in	Israel Beer-Sheva, Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys" O. Burg, G. Ben–Hamu , M. Ben-Haroush and D. Eliezer, "The relation Between	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry	Israel Beer-Sheva, Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys" O. Burg, G. Ben–Hamu , M. Ben-Haroush and D. Eliezer, "The relation Between Extrusion Process and	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-	Israel Beer-Sheva, Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys" O. Burg, G. Ben–Hamu , M. Ben-Haroush and D. Eliezer, "The relation Between Extrusion Process and The Corrosion Behavior	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry	Israel Beer-Sheva, Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys" O. Burg, G. Ben–Hamu , M. Ben-Haroush and D. Eliezer, "The relation Between Extrusion Process and The Corrosion Behavior of Wrought Magnesium	
29-31/5/2007	on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI- 2007) 3 rd conference on corrosion and Advanced Materials in Industry (CAMPI-	Israel Beer-Sheva, Israel Beer-Sheva,	Eliezer, "Processing and Characterization of New Magnesium Alloys " M. Ben–Haroush, D. Eliezer, G. Ben–Hamu and L. Wagner, "The relation Between Microsructure and Corrosion Behavior due Severe Plastic Deformation of Wrought Magnesium Alloys" O. Burg, G. Ben–Hamu , M. Ben-Haroush and D. Eliezer, "The relation Between Extrusion Process and The Corrosion Behavior	

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	Walding and	Kfar	V Don Arush E	
21/1/2014	Welding and		Y. Ben-Arush, E.	
	Joining 2014	Maccabiah,	Fineberg, G. Ben-Hamu	
		Israel	and L. Meshi,	
			"Microstructural	
			Characterization of	
			Friction-Stir-Welded Die	
			Cast AM50 Magnesium	
			Alloy"	
	The 16 Israel	Haifa, Israel	Y. Ben-Arush, G. Ben-	
23-25/2/2014	Materials		Hamu and L. Meshi,	
	Engineering		"The Relation between	
	Conference		Microstructure,	
	(IMEC16)		Mechanical Properties	
			and Corrosion Behavior	
			of Friction-Stir-Welded	
			Die Cast AM50	
			Magnesium Alloy."	
18-20/1/2015	Welding,	Tel Aviv,	G. Ben-Hamu, Y.	
10 20, 1/2010	Joining and	Israel	Templeman and L. Meshi,	
	Additive	151401	"Microstructural	
	Manufacturing		Characterization and	
	2015		Corrosion Behavior of	
	2013		Friction-Stir-Welded	
			AM50 and AZ31	
10.00/1/0015	XX7 1 1	T 1 A 1	Magnesium Alloys"	
18-20/1/2015	Welding,	Tel Aviv,	M. Grebenchuk, A.	
	Joining and	Israel	Avrutin and G. Ben-	
	Additive		Hamu,	
	Manufacturing		"The Relation between	
	2015		Printing Orientation and	
			Mechanical Properties of	
			3D Product"	
2-3/3/2015	ICME 15	Tel Aviv,	G. Ben-Hamu,	
		Israel	"The relation between	
			Finite element simulation	
			and Experimental Study	
			of advance welding	
			process"	
17-18/5/2015	The 49 th	Ramat Gan,	Y. Templeman, G. Ben	
	Annual	Israel	Hamu, L. Meshi,	
	Scientific		"Characterization of Mg-	
	Meeting of		Based Friction Stir	
	ISM		Welded Alloys"	
26/1/2016	Welding,	Tel Aviv,	Y. Templeman, G. Ben	
	joining and	Israel	Hamu, L. Meshi,	
	Additive		"Characterization of Mg-	
	Manufacturing		Based Friction Stir	
	2016		Welded Alloys"	
26/1/2016	Welding,	Tel Aviv,	D. Panaschik and G. Ben	
20/1/2010	joining and	Israel	Hamu,	
	Additive	151 201	"Effect of build	
	Manufacturing		Orientation on the	
	2016		mechanical properties of	

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

b. Organization of Conferences or Sessions

Date	Name of	Place of	Subject of	Role
	Conference	Conference	Lecture/Discussion	
8-12/7/2012	The 9 th International	Vancouver, BC,	Corrosion and Surface	
	Conference on	Canada	Treatment	Chair
	Magnesium Alloys			Person
	and their			
	Applications			
2-6/11/2014	The 17 th	Jeju, Korea	Corrosion in Light	
	International		Metals	Chair
	Corrosion congress			Person
18-20/1/2015	Welding, Joining	Tel Aviv, Israel	Welding Engineering	Chair
	and Additive			Person
	Manufacturing 2015			
2-3/3/2015	ICME 15	Tel Aviv, Israel	Advance	
			Manufacturing	Chair
	+ + h		Technologies	Person
11-16/10/2015	The 10 th	Jeju, Korea	Corrosion and Surface	
	International		Treatment	~ .
	Conference on			Chair
	Magnesium Alloys			Person
	and their			
	Applications (Mg			
0.10/10/2010	2015)			
9-10/10/2018	ICME 18	Beer-Sheva,	Manufacturing	Member of
		Israel		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	Materials	Presentation for M.Sc. and
	University	Engineering	Ph.D student "corrosion of
		Department	Magnesium Alloys – The
		Seminar	Role of Alloying Elements"
03/09/2019	KU LEUVEN	Bio-Art EU	Presentation for the member
		capacity project	of the project – researches
			from Belgium, Spain,
			Austria, Ukraine and Israel.
			"Patient-specific orthopedic
			implants manufactured by
			Additive Manufacturing"

8. <u>Research Grants</u>

Grants Awarded

Role in	Co-	Торіс	Funded by/	Year
Research	Researchers	-	Amount	
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
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. <u>Teaching</u> a. <u>courses Taught Recent Years</u>

Year	Name of Course	Type of Course: Lecture/Seminar/W orkshop/High Learn Course/Introductio n 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

Name of	Title of Thesis	Degree	Date of	Students'
Student		Degree	Completion/	Achivements
~~~~~~			in Degree	
Yael	Microstructure	M.Sc Material	2/2016	Score: 92
Templeman	and corrosion	Engineering		
	behavior of	Department,		Co. Advisor:
	Friction Stir	Ben-Gurion		Prof. L. Meshi
	welded AM50	University		(Dept. of Materials
	and AZ31 Mg			Engineering – BGU)
	Alloys			L 1D 20 22
				Journal Paper: 29, 32
				Conference paper: 36
Israel Madan	Hydrogen	M.Sc. unit	12/2017	Score: 92
Israel Widdan	Generation via	Energy,	12/2017	5000.92
	Solar Based	Ben-Gurion		
	Water	University		
	Electrolysis with	-		
	Addition of			
	Magnesium			
	Alloys		1/2010	a
Polina	The effect of	M.Sc Material	1/2018	Score: 95
Metalnikov	alloying elements on	Engineering		Co. Advisor:
	microstructure	Department, Ben-Gurion		Prof. D. Eliezer
	and corrosion	University		(Dept. of Materials
	behavior of	Oniversity		Engineering – BGU)
	wrought Mg–A1			Engineering DOO)
	Alloys			Journal Paper:32, 33
				1 – section E
				Conference paper:
				46
Ronen	Development of	M.Sc. unit	0.1 /0.000	Score: 92
Komarian	Experimental	Energy,	01/2020	0 11
	System Model	Ben-Gurion		Co. Advisor: Prof. D. Eliezer
	of Top Line Corrosion in Gas	University		(Dept. of Materials
	Pipe			Engineering – BGU)
				Conference paper:
				50
Dror Hazan	Corrosion in	M.Sc. unit		Score: 92
	underwater gas	Energy,	03/2020	
	pipeline	Ben-Gurion		
Dalia -	Environment-1	University Ph D		Co. Advisor:
Polina Metalnikov	Environmental	Ph.D, Material	In Drograss	Co. Advisor: Prof. D. Eliezer
wietannikov	degradation of AM-fabricated	Engineering	In Progress	(Dept. of Materials
	structural alloys	Department,		Engineering – BGU)
	structurar anoys	BGU		Lingmooring ⁻ DOO)
Avi Mor	The role of	M.Sc. Green	In Progress	
	alloying	Engineering,		
	elements on the	SCE		

b. <u>Supervision of Graduate Students</u>

	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	And the second
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. <u>Articles in Refereed Journals</u> Published

- <u>G. Ben-Hamu</u>, 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
- <u>G. Ben-Hamu</u>, 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]
- <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, 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]

- A. Kaya, <u>G. Ben-Hamu</u>, 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]
- A. Kaya, D. Eliezer, <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, 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]
- <u>G. Ben-Hamu</u>, 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]
- <u>G. Ben-Hamu</u>, 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]
- <u>G. Ben-Hamu</u> 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]
- A. Eliezer, O. Medlinsky, J. Haddad and <u>G. Ben-Hamu</u>, " 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]
- <u>G. Ben-Hamu</u>, 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]
- M. Ben-Haroush, <u>G. Ben Hamu</u>, 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]
- <u>G. Ben-Hamu</u>, 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]
- <u>G. Ben-Hamu</u>, 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, <u>G. Ben Hamu</u>, 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]

- <u>G. Ben Hamu</u>, 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]
- V. Lisitsyn, <u>G. Ben-Hamu</u>, 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]
- C.E. Cross, P. Xu, D. Eliezer, and <u>G. Ben-Hamu</u>, "Galvanic Weld Metal–Base Metal Corrosion in AZ31 Magnesium Weldments", *Advanced Materials Research*, 95, (2010), 39-42. [2, I.F=0.87, Q4]
- <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, 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, <u>G. Ben-Hamu</u>, 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, <u>G. Ben-Hamu</u>, 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]
- V. Lisitsyn, <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, "Corrosion and Stress Corrosion Cracking of New Wrought Magnesium alloys", *Challenges of Modern Technology*, 1, 1, (2010), 79-87 [_, _, Q4]
- 27. Y Snir, <u>Guy Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u> 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. <u>G. Ben-Hamu</u>, "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, <u>G. Ben-Hamu</u>, 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]
- <u>G. Ben-Hamu</u>, 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, <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, 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, <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u> 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. <u>Articles in Conference Proceedings</u> <u>Published</u>

- A. Eliezer, E.M. Gutman, P.L. Bonora, E. Abramov, Y. Unigovski, M. Andrei, <u>G. Ben-Hamu</u>, "Environmentally assisted fatigue fracture of magnesium alloys", "EUROCORR 2001", CD proceeding, Lake Garda, Italy, 30th Sept.-4th Oct. (2001).
- <u>G. Ben-Hamu</u>, 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).

- <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u> and D. Eliezer, "Development of New Magnesium Alloys for Stress Corrosion Applications", **EUROCORR 2004**, CD proceeding, Nice, France, September 12th 16th, (2004).
  - <u>G. Ben-Hamu</u>, 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).
  - <u>G. Ben-Hamu</u>, D. Eliezer and K. S. Shin, "Corrosion Behavior of New Wrought Mg-Zn Alloys", EUROCORR 2005, CD proceeding, Lisbon, Portugal, September 4th – 8th, (2005).
  - A.A. Kaya, <u>G. Ben-Hamu</u>, 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
  - A.A. Kaya, D. Eliezer, <u>G. Ben-Hamu</u>, 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
- D. Eliezer, <u>G. Ben Hamu</u>, 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.
- <u>G. Ben-Hamu</u>, 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).
  - <u>G. Ben-Hamu</u>, 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).
  - <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, 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  $24^{th} - 28^{th}$ , (2006)

- <u>G. Ben-Hamu</u>, 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)
- <u>G. Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, 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.
- C.E. Cross, <u>G. Ben-Hamu</u>, 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.
- <u>G. Ben Hamu</u>, 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.
- <u>G. Ben Hamu</u> 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. <u>G. Ben Hamu</u>, 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.
- C.E. Cross, P. Xu, D. Eliezer, and <u>G. Ben-Hamu</u>, "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
- <u>G. Ben-Hamu</u>, 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
- <u>G. Ben-Hamu</u>, 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  $29^{th} - 31$ , (2007) – Paper No. 22 section B

- E. Barel, <u>G. Ben-Hamu</u>, 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
- <u>G. Ben Hamu</u>, 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)
- <u>G. Ben Hamu</u>, 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)
- <u>G. Ben Hamu</u>, "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).
- <u>G. Ben Hamu</u>, 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)
- <u>G. Ben Hamu</u>, 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)
- <u>G. Ben Hamu</u>, "Stress Corrosion Cracking of Wrought Mg-Zn-Mn-Si alloys", NACE Corrosion 2009, CD proceeding ,Atlanta, Georgia, USA, March 22th -26th (2009).
- <u>G. Ben Hamu</u>, "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
  - <u>G. Ben Hamu</u>, "Local potential measurements with the SKPFM on Wrought Magnesium Alloys", NACE Corrosion 2011, CD proceeding, Houston, Texas, USA, March 13th-17th (2011).
  - 33. <u>G. Ben Hamu</u> 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).

- <u>G. Ben-Hamu</u>, 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).
- <u>G. Ben-Hamu</u>, "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. <u>G. Ben-Hamu</u> 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)
- <u>G. Ben-Hamu</u>, 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).
- <u>G. Ben-Hamu</u>, "Can Robots Walk on the Dead Sea Salts Environment?", The 17th International Corrosion Congress, CD proceeding, Jeju, Korea, November 2nd- 6th, (2014).
- 39. <u>G. Ben Hamu</u>, 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)
- <u>G. Ben Hamu</u> 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)
- Y. Templeman, <u>G. Ben Hamu</u>, 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)
- <u>G. Ben-Hamu</u>, "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. <u>G Ben-Hamu</u>, 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. <u>G. Ben-Hamu</u>, "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)
- <u>G. Ben-Hamu</u>, "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

- P. Matalnikov, <u>G. Ben-Hamu</u> 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)
- <u>G. Ben Hamu</u>, 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)
- <u>G. Ben-Hamu</u>, "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, <u>G. Ben-Hamu</u>, "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, <u>G. Ben-Hamu</u>, 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, <u>G. Ben-Hamu</u>, 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, <u>G. Ben-Hamu</u>, E. Tal-GutelmacherK.S. Shin, "Hydrogen interactions with EBM Ti-6Al-4V" *submitted to Materials Today Communications*.