## MIDDLE EAST TECHNICAL UNIVERSITY

## DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

**Completed Ph.D. Theses** (1971-03.2022)

NAME	SURNAME	SUPERVISOR	THESIS	DATE
ЕТІ	UYGUR	OĞURTANI TARIK	DISLOCATION INTERSTITIAL INTERACTIONS IN NIOBIUM	8/25/1971
AHMET	GEVECİ	ROSENQUIST TERKEL	EQUILIBRIUM RELATIONS BETWEEN LIQUID IRON-COPPER MATTE, LIQUID METAL, AND SLAG	1/12/1973
HÜRMAN R.	ERİÇ	TİMUÇİN MUHARREM	PHASE RELATIONS AND THERMODYNAMICS IN LEAD- CONTAINING SULFIDE SYSTEMS	12/4/1979
ALİ ŞAKİR	BOR	ATASOY ERTUĞRUL	HIGH-TEMPERATURE CREEP BEHAVIOR OF NITRIDED Fe-V Fe-Ti ALLOYS	12/4/1981
A. MACİT	ÖZENBAŞ	ATASOY ERTUĞRUL	NUCLEATION AND GROWTH STUDIES ON SELENIUM THIN FILMS	6/22/1981
RAFET	ARIKAN	DORUK MUSTAFA	THE EFFECT OF LOADING RATE, TEMPERATURE, AND CRACK LENGTH ON FRACTURE INITIATION TOUGHNESS IN A LOW STRENGTH STEEL	6/25/1982
BİROL	SONUPARLAK	TİMUÇİN MUHARREM	EXAMINATION OF KAOLINITE-MULLITE REACTION SERIES	4/7/1983
MEHMET HİLMİ	GÜLER	ANKARA ALPAY	EXPERIMENTAL INVESTIGATION OF THE BEHAVIOR OF FILAMENT-WOUND GLASS FIBER REINFORCED PLASTIC TUBES UNDER AXIAL COMPRESSIVE AND HOOP TENSILE STRESSES	10/3/1985
FİLİZ	SARIOĞLU	DORUK MUSTAFA	CORRELATION BETWEEN YIELDING FRACTURE MECHANICS PARAMETERS AND THE CRACK GROWTH RATE OF A LOW STRENGTH STEEL IN AN AMMONIUM CARBONATE SOLUTION	10/3/1985
RIZA	GÜRBÜZ	DORUK MUSTAFA	EFFECT OF ORIENTATION ON SALTWATER FOG ENHANCED FATIGUE CRACK GROWTH BEHAVIOR OF 7050 T73651 ALUMINUM ALLOY	12/29/1987
BİLGEHAN	ÖGEL	TEKİN ERDOĞAN	THE EFFECT OF DOUBLE AUSTENITIZATION ON MICROSTRUCTURE AND FRACTURE TOUGHNESS OF AISI M2 HIGH-SPEED STEELS	12/13/1989
TURGUT	AKYÜREK	BİLİR ÖMER GÜNDÜZ	DAMAGE TOLERANCE OF LIFE ESTIMATION OF CRITICAL PARTS OF A FIGHTER AIRCRAFT	1/8/1991
ONUR	ÇOKGÖR	TOPKAYA YAVUZ	SEPARATION OF COPPER AND COBALT FROM HYRITE LEACH SOLUTION BY SOLVENT EXTRACTION	5/30/1991
ERGİN	NOYAN	ATALA HALUK	SHAPE MEMORY ALLOY DESIGN	9/14/1990
FARUK	ELALDI	ANKARA ALPAY	DESIGN FABRICATION AND COMPRESSION TESTING OF STIFFENED COMPOSITE PANELS FOR AIRCRAFT STRUCTURES	7/17/1992

NASSER AHMED	FAYAD	DORUK MUSTAFA	STUDY OF STRESS CORROSION CRACKING SUSCEPTIBILITY OF 7050-T73651 ALUMINUM ALLOY IN 3.5% NaCl	6/23/1993
ABDİ	AYDOĞDU	SEVİNÇ NACİ	PRODUCTION OF BORON NITRIDE	8/27/1993
NURŞEN	коç	TİMUÇİN MUHARREM	ACTIVITY-COMPOSITION RELATIONS IN MnCr <sub>2</sub> O <sub>4</sub> -CoCr <sub>2</sub> O <sub>4</sub> SOLID SOLUTIONS AND STABILITIES OF MnCr <sub>2</sub> O <sub>4</sub> AND CoCr <sub>2</sub> O <sub>4</sub>	9/10/1993
TEVFİK ALP	ALANYALIOĞLU	DORUK MUSTAFA	PITTING CORROSION IN BASE METAL DENTAL CASTING ALLOYS	6/24/1994
MEHMET KADRİ	AYDINOL	BOR A. ŞAKİR	COMPUTER SIMULATION OF TEM IMAGES: COMPOSITE PRECIPITATES IN Al-Li-Zr ALLOYS	9/28/1994
HALİT	KALEBOZAN	SELÇUK EKREM	MEASUREMENT OF SURFACE TENSION AND INVESTIGATION OF INTERFACIAL PROPERTIES OF LIQUID Cu, Al, AND Al-Si, BRONZE ALLOYS ON VARIOUS REFRACTORY OXIDES	9/30/1994
CEVDET	KAYNAK	ANKARA ALPAY	BEHAVIOR OF SHORT CRACK IN A STEEL WITH ELONGATED INCLUSIONS	10/21/1994
CEMİL HAKAN	GÜR	TAYFUR ÖZTÜRK	FINITE ELEMENT MODELING AND MEASUREMENT OF STRESS EVOLUTION IN QUENCHING PROCESSES	8/10/1995
SAMI MOH'D KHAIR AHM	MASADEH	DORUK MUSTAFA	CATHODIC HYDROGEN EMBRITTLEMENT OF PRE-STRESSING STEEL WIRES IN SIMULATED CONCRETE ENVIRONMENT	1/12/1996
NURŞEN	GÜRESİN	GEVECİ AHMET	OXIDATIVE PRESSURE LEACHING OF ÇAYELİ ZINC SULPHIDE CONSTANT RATE	1/26/1996
RAUF	GÜNGÖR	OĞURTANI TARIK	MATHEMATICAL MODELLING AND COMPUTER SIMULATION OF INTERNAL FRICTION SPECTRUM ASSOCIATED WITH INTERACTION BETWEEN DISLOCATIONS AND FOREIGN INTERSTITIAL ATOMS	1/26/1996
İBRAHİM	ÇAM	TİMUÇİN MUHARREM	PHASE EQUILIBRIA AND THERMODYNAMIC STUDIES IN THE SYSTEM IRON-NICKEL-OXYGEN AT 1300°C	1/26/1996
KAZIM	TUR	ANKARA ALPAY	STRENGTH AND STRESS CORROSION RESISTANCE OPTIMIZATION OF THICK PLATE AI-7075 ALLOY	4/19/1996
FEYYAZ ÖNDER	ORHANER	TEKİN ERDOĞAN	CREEP BEHAVIOR DETERMINATION AND REMAINING LIFE ESTIMATION FOR CENTRIFUGALLY CAST TUBES MADE OF Nb- STABILIZED 25/35 Cr Ni IRON-BASED SUPERALLOY	10/31/1996
MURAT CAN	OCAKTAN	TOPKAYA YAVUZ	RECOVERY OF LEAD AND CADMIUM FROM ÇİNKUR WAELZ OXIDE BY USING CHLORIDIZING VOLATILIZATION METHOD	11/8/1996
HACER	AYGÜN	SELÇUK EKREM	INVESTIGATION OF MOTTLING IN RADIOGRAPHY OF DIRECTIONALLY SOLIDIFIED Ni-based ALLOY GAS TURBINE BLADES	12/20/1996
HÜSNİYE	YAROĞLU	ÖZENBAŞ MACİT	FORMATION OF INTERMETALLIC PHASES AT THE METAL- SILICON INTERFACES	1/16/2001
BESİM GÖKÇE	DARA	ANKARA ALPAY	THERMAL LOADING EFFECTS ON CFRP COMPOSITES	1/18/2001

ERSİN EMRE	ÖREN	OĞURTANI TARIK	COMPUTER SIMULATION OF ELECTROMIGRATION INDUCED VOID-GRAIN BOUNDARY INTERACTIONS AND THE PREDICTION OF CATHODE FAILURE TIMES IN BAMBOO STRUCTURES	1/24/2003
MEHMET KAAN	PEHLİVANOĞLU	AKDENİZ M. VEDAT	PRODUCTION AND DEVELOPMENT OF BULK METALLIC GLASSES	6/12/2003
МЕНМЕТ	KUL	TOPKAYA YAVUZ A.	RECOVERY OF RARE EARTH METAL FROM BEYLIKAHIR - ORE	6/19/2003
ALPER TUNGA	DAVUTOĞLU	AYDINOL M. KADRİ	MOLECULAR DYNAMICS STUDIES OF DIFFUSION BEHAVIOR IN ALUMINUM-COPPER METALS AND ALLOYS	9/5/2003
ELİF	TARHAN	BOR A. ŞAKİR	AGING CHARACTERISTICS OF COPPER-BASED SHAPE MEMORY ALLOYS	1/22/2004
менмет	ŞİMŞİR	ÖZTÜRK TAYFUR	INVESTIGATION OF FRACTURE BEHAVIOUR OF STEEL/STEEL LAMINATES	3/12/2004
CANER	BATIGÜN	ANKARA ALPAY	DETERMINATION OF WELDING PARAMETER-DEPENDENT HOT CRACKING SUSCEPTIBILITY OF 5086-H32 ALUMINIUM ALLOY WITH THE USE OF MVT METHOD	1/14/2005
MUSTAFA	ÜBEYLİ	ÖGEL BİLGEHAN	A COMPARISON OF BALLISTIC BEHAVIOR OF STEEL AND LAMINATED COMPOSITE ARMORS	4/13/2005
YUSUF ZİYA	KARABAY	BOR A. ŞAKİR	PRODUCTION CHARACTERIZATION AND APPLICATION OF (TiNi) SHAPE MEMORY ALLOYS	7/24/2006
GÖKHAN	DEMİRCİ	KARAKAYA İSHAK	ELECTROLYTIC MAGNESIUM PRODUCTION USING COAXIAL ELECTRODES	8/1/2006
HASAN ERDEM	ÇAMURLU	SEVİNÇ NACİ	CARBOTHERMIC PRODUCTION OF HEXAGONAL BORON NITRIDE	11/1/2006
OMAR	EL-MABROUK	KALKANLI A.	AN INVESTIGATION OF COMPACTED GRAPHITE IRON PRODUCTION BY MEANS OF THERMAL ANALYSIS TECHNIQUE AND OTHER PROCESS CONTROL WINDOWS	1/10/2007
MUSTAFA SERDAR	KARAKAŞ	ÖGEL BİLGEHAN	EFFECT OF AGING ON THE MECHANICAL PROPERTIES OF B4C PARTICLE REINFORCED AL - 4% Cu METAL MATRIX COMPOSITES	9/7/2007
ZİYA	ESEN	BOR A. ŞAKİR	PRODUCTION AND CHARACTERIZATION OF POROUS TITANIUM ALLOYS	10/16/2007
ENDER	KESKİNKILIÇ	GEVECİ AHMET	EXAMINATION OF DESULFURIZATION BEHAVIOUR OF LADLE FURNACE SLAGS OF A LOW-SULFUR STEEL	10/17/2007
JONG EE	PARK	ÖZTÜRK ABDULLAH	DEVELOPMENT OF A GLASS-CERAMIC FOR BIOLOGICAL APPLICATIONS	2/5/2008
CANER	ŞİMŞİR	GÜR C. HAKAN	3D FINITE ELEMENT SIMULATION OF STEEL QUENCHING IN ORDER TO DETERMINE THE MICROSTRUCTURE AND RESIDUAL STRESSES	2/21/2008
ARDA	ÇETİN	KALKANLI ALİ	ASSESSMENT AND MODELLING OF PARTICLE CLUSTERING IN CAST ALUMINUM MATRIX COMPOSITES	4/14/2008

SÜHA	TİRKEŞ	ANKARA ALPAY	HOT CRACKING SUSCEPTIBILITY OF TWINROLL CAST AI-Mg ALLOYS	10/9/2009
ÖNCÜ	AKYILDIZ	OĞURTANI TARIK	COMPUTER SIMULATION OF GRAIN BOUNDARY GROOVING BY ANISOTROPIC SURFACE DRIFT-DIFFUSION DUE TO CAPILLARY, ELECTROMIGRATION, AND ELASTOSTATIC FORCES	5/31/2010
TARIK	AYDOĞMUŞ	BOR A. ŞAKİR	PROCESSING AND CHARACTERIZATION OF POROUS TITANIUM NICKEL SHAPE MEMORY ALLOYS	7/30/2010
ÖZGE	ACARBAŞ BALTACI	ÖZENBAŞ A. MACİT	PRODUCTION AND CHARACTERIZATION OF MAGHEMITE NANOPARTICLES	9/14/2010
HASAN	AKYILDIZ	ÖZTÜRK TAYFUR	HYDROGEN STORAGE IN MAGNESIUM BASED THIN FILMS	10/15/2010
VOLKAN	KALEM	TİMUÇİN MUHARREM	DEVELOPMENT OF PIEZOELECTRIC CERAMICS FOR ULTRASONIC MOTOR APPLICATIONS	1/12/2011
SERDAR	TAN	ÖZTÜRK TAYFUR	DIRECT SYNTHESIS OF HYDROGEN STORAGE ALLOYS FROM THEIR OXIDES	2/18/2011
GÜLHAN	ÇAKMAK	ÖZTÜRK TAYFUR	THE PROCESSING OF Mg-Ti POWDER FOR HYDROGEN STORAGE	2/24/2011
AYTAÇ	ÇELİK	OĞURTANI TARIK	INVESTIGATION OF ELECTROMIGRATION AND STRESS- INDUCED SURFACE DYNAMICS ON THE INTERCONNECT BY COMPUTER SIMULATION	3/14/2011
PINAR	KARPUZ	GÜR C. HAKAN	INVESTIGATION OF THE EFFECTS OF EQUAL CHANNEL ANGULAR EXTRUSION ON LIGHTWEIGHT ALLOYS	1/27/2012
NAGEHAN	DUMAN	MEHRABOV AMDULLA	MAGNETIC MONITORING APPROACH TO KINETICS OF PHASE TRANSFORMATIONS IN MULTICOMPONENT ALLOY SYSTEMS	2/9/2012
NİHAT ALİ	IŞITMAN	KAYNAK CEVDET	FLAME RETARDANCY OF POLYMER NANOCOMPOSITES	3/2/2012
EVREN	TAN	ÖGEL BİLGEHAN	SEVERE PLASTIC DEFORMATION OF AGE HARDENABLE ALUMINUM ALLOYS	9/14/2012
GÜL	ÇEVİK	GÜRBÜZ RIZA	EVALUATION OF EFFECT OF FILLET ROLLING PROCESS ON THE FATIGUE PERFORMANCE OF A DIESEL ENGINE CRANKSHAFT	9/17/2012
GÜL İPEK	NAKAŞ	BOR A. ŞAKİR	THE PROCESSING OF POROUS Ni-rich TiNi ALLOYS VIA POWDER METALLURGY AND THEIR CHARACTERIZATION	9/28/2012
AYDIN	RÜŞEN	GEVECİ AHMET	USAGE OF BORON COMPOUNDS IN COPPER PRODUCTION	2/1/2013
METEHAN	ERDOĞAN	KARAKAYA İSHAK	RECOVERY OF TUNGSTEN FROM TUNGSTEN BEARING COMPOUNDS	2/1/2013
KORAY	YURTIŞIK	GÜRBÜZ RIZA	KINETICS AND MICROSTRUCTURAL ANALYSIS OF FATIGUE FRACTURE PROGRESS IN WELD JOINTS OF DUPLEX STAINLESS STEEL GRADE 2205	6/27/2013
EBRU	SARALOĞLU GÜLER	KARAKAYA İSHAK	ELECTRODEPOSITION OF MOLYBDENUM DISULFIDE PARTICLES IN NICKEL MATRIX	7/12/2013

NECMETTIN KAAN	ÇALIŞKAN	BOR A. ŞAKİR	PROCESSING AND CHARACTERIZATION OF HIGH-DENSITY TUNGSTEN-NICKEL-IRON ALLOYS	7/30/2013
ATIL	BÜYÜKBURÇ	AYDINOL M. KADRİ	DEVELOPMENT AND CHARACTERIZATION OF HIGH ENERGY CATHODE MATERIALS FOR LITHIUM-ION BATTERIES	8/2/2013
SELEN NİMET	GÜRBÜZ	DERİCİOĞLU ARCAN	PROCESSING AND CHARACTERIZATION OF BRICK-AND- MORTAR STRUCTURED BULK BIO-INSPIRED COMPOSITES	8/29/2013
ABDELRAHMAN SALEH	SULTAN	KARAKAYA İSHAK	EFFECT OF CHROMIUM ON THE OXIDATION OF STEELS USED IN THE CONSTRUCTION OF PETROLEUM REFINERY HEATERS	9/4/2013
SAEID	POURNADERI	GEVECİ AHMET	OPTIMIZATION OF FERRONICKEL PRODUCTION FROM SIVRIHISAR NICKEL LATERITE ORE	5/15/2014
HALİL İBRAHİM	YAVUZ	ÖZENBAŞ A. MACİT	DESIGN OF HIGH-EFFICIENCY DYE-SENSITIZED NANOCRYSTALLINE SOLAR CELLS	9/4/2014
GÜHER	KOTAN	GÜR C. HAKAN	INVESTIGATION OF MICROSTRUCTURAL MODIFICATIONS AND RELATED MECHANISMS IN SEVERELY DEFORMED AL- ALLOYS	9/10/2014
МЕНМЕТ	YILDIRIM	AKDENİZ M. VEDAT	DESIGN AND DEVELOPMENT OF IRON-ALUMINIUM INTERMETALLIC COMPOUNDS FOR STRUCTURAL APPLICATIONS AT HIGH TEMPERATURES	12/18/2014
ÖZLEM	ALTINTAŞ YILDIRIM	DURUCAN CANER	SYNTHESIS OF ZINC OXIDE NANOPARTICLES BY AQUEOUS METHODS AND EFFECT OF METAL INCORPORATION ON THE STRUCTURAL/FUNCTIONAL PROPERTIES OF NANOPARTICLES	12/23/2014
DERYA	KAPUSUZ	ÖZTÜRK ABDULLAH	DEVELOPMENT AND PHOTOCATALYTIC PROPERTIES OF POTASSIUM TITANATE NANOSTRUCTURE EMBEDDED RESIN COMPOSITES	2/2/2016
NURİYA	GARİPOVA	GÜR C.HAKAN	NUMERICAL INVESTIGATION OF RESIDUAL STRESSES, DISTORTION, AND MICROSTRUCTURE EVOLUTION IN MULTI-PASS WELDED STEEL COMPONENTS	9/21/2016
ŞERİF	KAYA	TOPKAYA YAVUZ ALİ	EXTRACTION OF SCANDIUM FROM A LATERITIC NICKEL-COBALT ORE BY MEANS OF HYDROMETALLURGICAL TECHNIQUES	9/28/2016
NURSEV	BİLGİN	ÖZTÜRK ABDULLAH	HYDROTHERMAL SYNTHESIS OF TiO <sub>2</sub> NANOSTRUCTURES FOR PHOTOCATALYTIC AND PHOTOVOLTAIC APPLICATIONS	2/1/2017
GÖKSU	GÜRER	GÜR C.HAKAN	NUMERICAL PREDICTION AND EXPERIMENTAL INVESTIGATION OF FRETTING FATIGUE CRACK INITIATION AT RAILWAY AXLE-WHEEL CONTACTS	4/28/2017
AYŞE MERVE	GENÇ (ÜNALAN)	KALAY Y. EREN	DEVELOPMENT OF RARE-EARTH FREE PERMANENT MAGNETS	10/11/2017
ŞAHİN	COŞKUN	ÜNALAN H. EMRAH	APPLICATIONS OF SILVER NANOWIRE NETWORKS IN OPTOELECTRONIC DEVICES	1/30/2018
FATİH	PİŞKİN	ÖZTÜRK TAYFUR	A COMBINATORIAL STUDY ON HYDROGEN SEPARATION MEMBRANES	4/30/2018
BERKE	PİŞKİN (ÖKSÜZ)	AYDINOL M. KADRİ	DEVELOPMENT AND CHARACTERIZATION OF NEW LAYERED CATHODE MATERIALS FOR LITHIUM-ION BATTERIES	4/30/2018

MUSTAFA BURAK	COŞAR	ÖZENBAŞ MACİT	TUNING THE ELECTRON BEAM EVAPORATION PARAMETERS FOR THE PRODUCTION OF HOLE AND ELECTRON TRANSPORT LAYERS FOR PEROVSKITE SOLAR CELLS	6/28/2019
İSMAİL SEÇKİN	ÇARDAKLI	KALKANLI ALİ	DEVELOPMENT OF FUNCTIONALLY GRADED ALUMINUM MATRIX COMPOSITE MATERIALS FOR DEFENSE INDUSTRY APPLICATIONS	9/5/2019
BARAN	GÜLER	EFE MERT	MICROSTRUCTURAL ORIGINS OF STRAIN HETEROGENEITY IN FORMABILITY OF ALUMINUM ALLOYS	12/27/2019
GÖKHAN	POLAT	KALAY YUNUS EREN	DEVELOPMENT OF HIGH STRENGTH LIGHTWEIGHT HIGH ENTROPY ALLOYS (LWHEAs)	1/2/2020
EMRE BURAK	ERTUŞ	ÖZTÜRK ABDULLAH	PRODUCTION AND CHARACTERIZATION OF HIERARCHICALLY POROUS TRANSPARENT GLASSES	1/30/2020
EZGİ	BÜTEV ÖCAL	DERİCİOĞLU F.ARCAN	DESIGN OF Ti-Mg COMPOSITES FOR VARIOUS APPLICATIONS	07.07.2020
BURCU	ARSLAN HAMAT	AYDINOL KADRİ	DEVELOPMENT AND CHARACTERIZATION OF CATALYST MATERIALS OF ZINC-AIR BATTERIES	12.02.2021
SALTIK (TÜLBEZ)	SİMGE	DERİCİOĞLU F. ARCAN	INTERFACIAL REACTION KINETICS AND MICROSTRUCTURAL EVOLUTION OF C/SIC COMPOSITES TO METAL JOINTS	9/9/2021
KAFADAR (KILIÇ)	GÜLTEN	ÖGEL BİLGEHAN	THE EFFECT OF SI AND MO ON THE ISOTHERMAL TRANSFORMATION TREATMENT AND TEMPERING OF A BAINITIC MEDIUM C STEEL	02.12.2021
AYDINLI	ALPTEKİN	ÜNALAN H. EMRAH	DEVELOPMENT OF NANOCOMPOSITE ELECTRODES AND SEPARATORS FOR SUPERCAPACITORS	10.02.2022