**2018-19 Spring Graduate Applications**

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| **ACADEMIC ADVISOR** | **THESIS SUBJECT** |
| Prof. Dr. H. Emrah Ünalan | FUNCTIONAL METAL OXIDE THIN FILMS |
| Prof. Dr. Amdulla Mehrabov | 1. MODELLING AND SIMULATIONS OF PHASE CHANGES IN L12-TYPE ORDERED ALLOYS UNDER HIGH-ENERGY PARTICLES IRRADIATIONS 2. MODELLING AND SIMULATIONS OF THE EFFECT OF CRYSTALLINE DEFECTS ON THE ENERGY SPECTRUM OF Cd1-xMnxTe SEMIMAGNETIC SEMICONDUCTOR COMPOUNDS 3. DESIGN AND DEVELOPMENT OF Ni-based NANOALLOYS BY COMPUTER MODELLING and SIMULATIONS (Ab Initio, Monte Carlo, Molecular Dynamics etc.) 4. DESIGN AND DEVELOPMENT OF BULK AMORPHOUS (METALLIC GLASS) ALLOYS BY COMPUTER MODELLING and SIMULATIONS (Ab Initio, Monte Carlo, Molecular Dynamics etc.) 5. PRODUCTION BY HIGH-ENERGY BALL MILLING AND STRUCTURAL CHARACTERIZATION OF Ni-Ti NANOALLOYS 6. EFFECT OF TERNARY ALLOYING ELEMENTS ADDITION ON PHASE STABILITY AND PHASE TRANSFORMATIONS IN Ti-Nb ALLOYS |
| Dr. Öğr. Üyesi Simge Çınar | 1. DESIGN AND DEVELOPMENT OF NEXT GENERATION SUSPENSION BATTERY MATERİALS 2. NANOFLUIDS FOR ENERGY STORAGE 3. FABRICATION OF MULTIFUNCTIONAL ANISOTROPİC NANOPARTICLES 4. DESIGNING JANUS STRUCTURES AND THEIR USE AS MİCRO/NANOMOTORS 5. ADDITIVE MANUFACTURING OF CERAMICS |
| Dr. Öğr. Üyesi Batur Ercan | 1. PRODUCTION OF TiO2 MICROSPHERE REINFORCED ANTIBACTERIAL COMPOSITES FOR ORTHOPEDIC AND DENTAL APPLICATIONS 2. FABRICATION OF NANOPHASE SURFACE TOPOGRAPHY ON 316L STAINLESS STEEL STENTS FOR VASCULAR APPLICATIONS 3. TI6AL4V BASED BONE ANCHORED ORTHOPEDIC IMPLANTS 4. ANODIZATION OF METALLIC SURFACES COATED ON UHMWPE |
| Prof. Dr. İshak Karakaya | 1. ELECTROCHEMICAL MACHINING OF DEEP TUBULAR STRUCTURES 2. SURFACE MODIFICATION OF TITANIUM ALLOYS FOR AEROSPACE APPLICATIONS 3. DEVELOPMENT OF HIGH-TEMPERATURE OXIDATION-RESISTANT COATINGS |
| Prof.Dr. Caner Durucan | 1. DEVELOPMENT OF THERAPEUTIC AGENT-INCORPORATED BONE CEMENT 2. DEVELOPMENT OF BONE GRAFT MICROSPHERES BY BIOMIMETIC ROUTES |
| Prof.Dr. M.Kadri Aydınol | 1. CATALYST DEVELOPMENT FOR METAL AIR BATTERIES 2. MATERIAL DEVELOPMENT FOR ORGANIC REDOX BATTERIES 3. MANGANESE BASED ACTIVE MATERIALS FOR Li-ION BATTERIES 4. DEVELOPMENT OF LEAD-CARBON BATTERIES 5. MATERIAL DEVELOPMENT FOR PRIMARY LITHIUM BATTERIES 6. MATERIAL DEVELOPMENT FOR ULTRACAPACITORS |
| Dr. Öğr.Üyesi Bilge İmer | 1. THERMOELECTRC THIN FILMS FOR ENERGY APPLICATIONS 2. DEVELOPMENT OF NEW TRANSPARENT CONDUCTIVE OXIDE (TCO) THIN FILMS WITH ATOMIC LAYER DEPOSIITON (ALD) AS AN ALTERNATIVE TO METAL CONTACTS FOR OPTOELECTRONİCS. 3. DEVELOPMENT OF ALUMINIDE COATINGS WITH CHEMICAL VAPOUR DEPOSIITON (CVD) FOR TURBINE APPLICATıONS 4. INVESTIGATION OF STRUCTURE PROPERTY RELATIONSHIP OF PD RICH ALLOYS AFTER HEAT TREATMENT |
| Prof.Dr. Tayfur ÖZtürk | ENERJİ MALZMELERİ ( ALKALİN PİLLER, KATI OKSİT YAKIT PİLLERİ) |