


**2L-15 MAKROMOLEKULAR MATERIALS RESEARCH LABORATORY**

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<b>General Information</b>	Synthesis of phthalocyanine, BODIPY and coumarin photosensitizers which can be used in cancer treatment by photodynamic therapy, investigation of photophysical and photochemical properties.	
<b>Applications</b>	<ul style="list-style-type: none"><li>○ Photophysical and photochemical analysis</li><li>○ Photodynamic therapy of cancer</li><li>○ Solar-cells</li><li>○ Biosensors for early detection of diseases</li></ul>	
<b>Laboratory Photo</b>		
<b>Equipment</b>	<ul style="list-style-type: none"><li>○ Oven (Binder)</li><li>○ Vacuum Oven (Witeg)</li><li>○ Centrifuge (Gyrozen)</li><li>○ Ultrasonic Bath (Çalışkan)</li><li>○ Evaporator (Heidolph)</li><li>○ UV-lamp (Handheld)</li><li>○ Micro Balance (Shimadzu)</li><li>○ Balance (Kern PCB)</li></ul>	
<b>Projects</b>	<ul style="list-style-type: none"><li>○ GTÜ, BAP, (2007-2009), Synthesis of New Phthalocyanine Derivatives for Photodynamic Therapy, 8.700 TL</li><li>○ Tübitak, ARDEB 1001, (2008-2010), Synthesis and Photodynamic Therapy Applications of Phthalocyanine- Nanoparticle Photosensitizers, 164.362 TL</li><li>○ Tübitak-Russia Bileteral Project, (2009-2011), Mesomorphic Molecular Materials for Electronics: Structural Organization on the Substrate Surface, 180.000 TL</li><li>○ Tübitak, ARDEB 1001, (2011-2013), Synthesis, Photophysical and Photochemical Properties of Novel Type Photosensitizers for Photodynamic Therapy, 167.440 TL</li></ul>	

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|  | <ul style="list-style-type: none"><li>○ Tübitak-Russia Bileteral Project, (2012-2014), Single-walled carbon nanotube/phthalocyanine hybrid materials: preparation, characterization and sensing properties, 202.280 TL</li><li>○ Tübitak, ARDEB 1002, (2013-2014), Synthesis and Investigation of In vitro Photodynamic Cancer Therapy Activities of Dimeric Pyrene-BODIPY-Phthalocyanine Photosensitizers, 30.000 TL</li><li>○ Tübitak-Bulgaria Bileteral Project, (2013-2016), Water-soluble Phthalocyanines for Fluorescence Diagnosis and Photodynamic Therapy, 332.869 TL</li><li>○ Tübitak, ARDEB 1002, (2015-2016), Synthesis of Novel Phthalocyanine-Borondipyrromethene (BODIPY) Photosensitizers <i>via</i> “Click” Process for Diagnostic and Therapy (THERANOSTIC) of Cancer and Investigation of Their Properties, 30.000 TL</li><li>○ Tübitak, ARDEB 1001, (2015-2017), Synthesis and Biological Activities of Novel Type Multifunctional Photosensitizer Compounds, 426.907 TL</li><li>○ Tübitak, Ardeb 1001, (2019-...), New Generation Photosensitizers for Cancer Treatment <i>via</i> Photodynamic Therapy: Synthesis and Determination of In vitro Activities Towards Breast Cancer Cells (MCF-7, MDA-MB-231), 465.627 TL</li></ul> |
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