


## 2L-08 SYNTHETIC CARBON ALLOTROPES (SCA) LABORATORY

<b>Department</b>	Department of Chemistry	
<b>Laboratory Responsible</b>	Assoc Prof. Dr. Elif OKUTAN	eokutan@gtu.edu.tr
<b>Research Team</b>	Res. Asst. Ezel ÖZTÜRK	ezelozturk@gtu.edu.tr
	Res. Asst. Hande ESERCİ	heserci@gtu.edu.tr
	Dr. Abdullah BİÇER	abicer@gtu.edu.tr
	Rovshen ATAJanOV	r.atajanov2020@gtu.edu.tr
	Berkan TASASIZ	btaasiz@gtu.edu.tr
<b>Contact Information</b>	GTU, Department of Chemistry, 2L08	Phone: +90 262 605 30 91
<b>General Information</b>	<ul style="list-style-type: none"> <li>▪ Synthetic Carbon Allotropes (Graphene, Carbon Nanotube, Fullerene),</li> <li>▪ Dyes (BODIPY, Perylene, Naphtalimide etc)</li> <li>▪ Light Harvesting Systems,</li> <li>▪ Solar Cells,</li> </ul>	<ul style="list-style-type: none"> <li>▪ Photodynamic Therapy,</li> <li>▪ Photosensitizers</li> <li>▪ Nanocomposites,</li> </ul>
<b>Applications<sup>4</sup></b>	<ul style="list-style-type: none"> <li>▪ Photophysical / Photochemical, Sensor, Singlet oxygen generation Analysis</li> <li>▪ Structure determination of novel compounds</li> <li>▪ Synthesis of novel dyes and nanocomposites</li> </ul>	
<b>Laboratory Photo</b>		
<b>Equipment</b>	<ul style="list-style-type: none"> <li>▪ UV spectrophotometer (Cary 60)</li> <li>▪ Vacuum Oven (Mettler)</li> <li>▪ Rotary Evaporators (Heidolph)</li> <li>▪ Drying Oven (Pol- Eko)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Santrifuge (Hermle)</li> <li>▪ Hot Plates (Heidolph)</li> <li>▪ Analytical Balance</li> <li>▪ Ultrasonic Bath</li> </ul>
<b>Projects</b>	<ul style="list-style-type: none"> <li>▪ TUBITAK ARDEB 1003, (2019-2021) " Development of Targeted BODIPY-Graphene Oxide Based Photosensitizer Platforms " 513.750,00 TL</li> <li>▪ GTU-BAP (2019-2020) "Preparation of mono- and di-styryl-carbazol-BODIPY dyads and investigation of their photophysical properties" 10.000,00 TL</li> <li>▪ TUBITAK, ARDEB 1001, (2018-2020) " Development of Targeted Amphiphilic Heavy Atom Free Nanophotosensitizers and Investigation of Their Potential in Photodynamic Therapy " 389.521,00 TL</li> <li>▪ GTU, BAP, (2018-2019) " Preparation of Dendrimeric Naphtalimide- BODIPY- Cyclophosphazene triads and investigation of their photophysical properties " 7.500,00 TL</li> <li>▪ GTU, BAP, (2017-2018) " Novel Naphtaleneimide- BODIPY dyads: Synthesis, characterization and photophysical properties " 7.500,00 TL</li> <li>▪ TUBITAK, Ardeb 1001, (2016- 2018), Preparation and Characterization of Perylene-Phosphazene/SWCNT Nanocomposites, Investigation of their Thermal, Photophysical and Electrochemical Properties and their potential in organic solar cells, 312471 TL</li> <li>▪ TUBITAK, 3001, (2014- 2017), Synthesis of BODIPY-Cyclotriphosphazatrien-Fullerene Triads as Heavy Atom Free Triplet Photosensitizer, Investigation of Their Photophysical Properties and Singlet Oxygen Production Yields, 74.250 TL</li> <li>▪ GTU-BAP, 2015-A-02, (2015-2016), Synthesis characterization and photophysical properties of BODIPY-Cyclotriphosphazatrien-Fullerene System, 13.025 TL</li> </ul>	