

Ref. no: 18-P	Project title		<b><u>By-Product Utilization Opportunities from Pretreatment and Fermentation Processes of Selected Agricultural Residues (Project No: 13Y00P2)</u></b>				
Name of legal entity	Country	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
Sustainable Development and Cleaner Production Center (SDCPC)	Turkey	100	1	Bogazici University	Bogazici University, Scientific Research Projects	March 2013 - March 2015	
Detailed description of project					Type of services provided		
<p data-bbox="369 754 1220 783"><i>Management of by-products/wastes coming from bioethanol production process</i></p> <ul data-bbox="235 818 1400 1121" style="list-style-type: none"> <li data-bbox="235 818 1400 906">- The remaining lignin after ethanol production could be utilized as a feedstock for green chemicals. There has been increasing interest in the development of economically viable new applications of by product lignin. A possible application for excess lignin is as a precursor for AC production.</li> <li data-bbox="235 943 1400 1058">- The objective of this study is to recover lignin rich residues (black liquor) subjected to dilute acid/steam pre-treatment processes, and saccharification and fermentation process to evaluate characteristic aspects of lignin residue, and to produce a valuable chemical; preferably activated carbon after black liquor separation via chemical activation and carbonization processes.</li> <li data-bbox="235 1066 1400 1121">- The major characteristics of produced AC from pretreated and fermented lignin residue have been determined within the frame of this study.</li> </ul>					<ul data-bbox="1518 794 2045 1026" style="list-style-type: none"> <li data-bbox="1518 794 2045 858">- Characterization of main feedstocks and, pretreated and fermented lignin</li> <li data-bbox="1518 927 2045 1026">- Determination of the characteristics of produced ACs (i.e. ultimate analysis, specific surface area, and porosity)</li> </ul>		