Potential of Greenhouse Grown Tomato Wastes Transformed to Hydrogen and Biofuel

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Tomato is the mostly produced vegetable both in Turkey and in the World. Almost half of the greenhouse grown tomatoes in Turkey are produced in out of season, therefore, tomatoes can be delivered to consumers all year around. The plant residues remain after harvesting of the product in greenhouse extracted leads to significant environmental pollution. Pests and diseases that are found in greenhouse grown plants at the end of the season can be a source of diseases to plants grown in open fields. The aim of this Project is to produce hydrogen from biofuel development by using important tomato biomass and end of the season greenhouse plant residues that cause environmental pollution. With this aim, the hydrogen production processes were used and the research resulted in 124ml gases and 38% hydrogen production from greenhouse tomato residues. Our study of hydrogen production from greenhouse tomato plant residues is the first study to be conducted in Turkey.

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