

12<sup>th</sup> 9 Q T N F % Q P **Biofuels and Bioenergy**  
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**S**tatement of the Problem: To meet the ambitious political targets regarding the future energy supply, advanced biofuels are needed to reduce the dependency and correlated emissions of fossil fuels. It has become apparent that the transportation sector still offers great potentials to facilitate a sustainable transition. Biogenic fuels that meet fossil fuel standards could therefore utilize in standard fossil fuel engines without market entry barriers. These fuels are only sustainable if the production is not competing for food security or is economically competitive. Methodology & Theoretical Orientation: The research focuses on the development of a new thermo-chemical process to convert biogenic carbon-based residues into valuable storage products. The Thermo-Catalytic Reforming (TCR®) is an intermediate pyrolysis process combined with a unique integrated