

### Current Research and Development Status of Corrosion Behavior of Automotive Materials in Biofuels

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#### Abstract

The world's need for energy is increasing with the passage of time and the substantial energy demand of the world is met by fossil fuels. Biodiesel has been considered as a replacement for fossil fuels in automotive engines. Biodiesels are advantageous because they provide energy security, they are nontoxic, renewable, economical, and biodegradable and clean sources of energy. However, there are certain disadvantages of biodiesels, including their corrosive, hygroscopic and oxidative natures. This paper provides a review of automotive materials when coming into contact with biodiesel blended fuel in terms of

problems because of corrosion have been presented. Biodiesel production can be carried out by different feedstocks and the studies which have been carried

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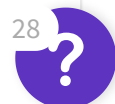
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out on these biodiesels have been reviewed in this paper. A certain number of compounds form on the surface of materials because of corrosion and the mechanism behind the formation of these compounds along with the characterization techniques generally used is reviewed.

### Keywords

**Author Keywords:** [corrosion](#); [biodiesel](#); [automotive materials](#); [green fuels](#); [corrosion test methods](#)

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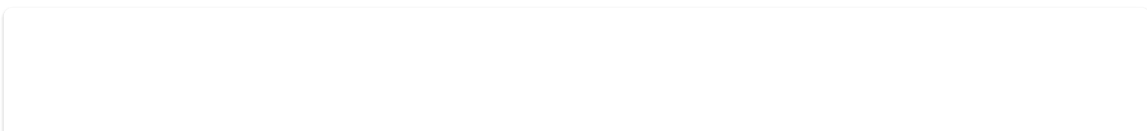
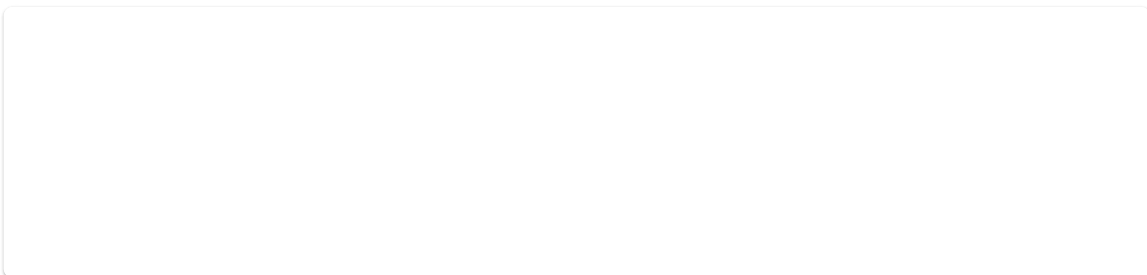
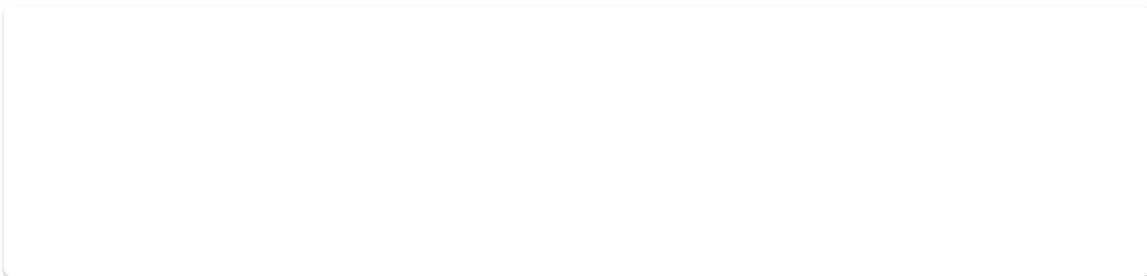
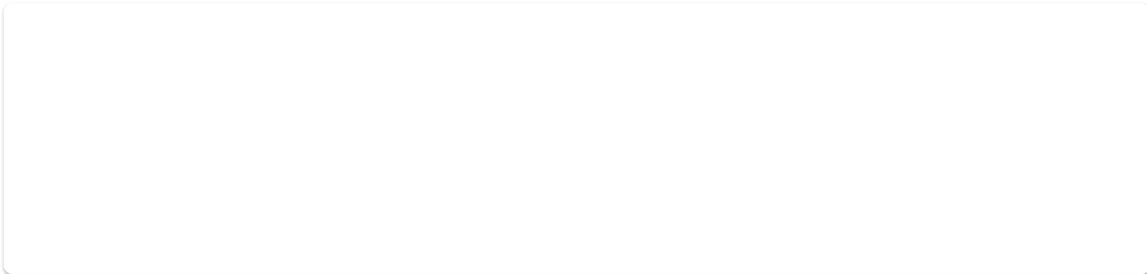
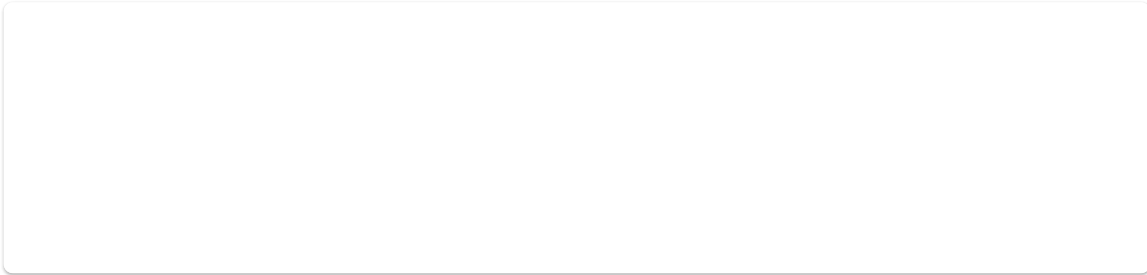
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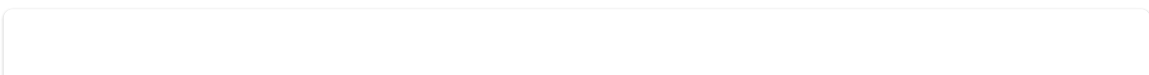
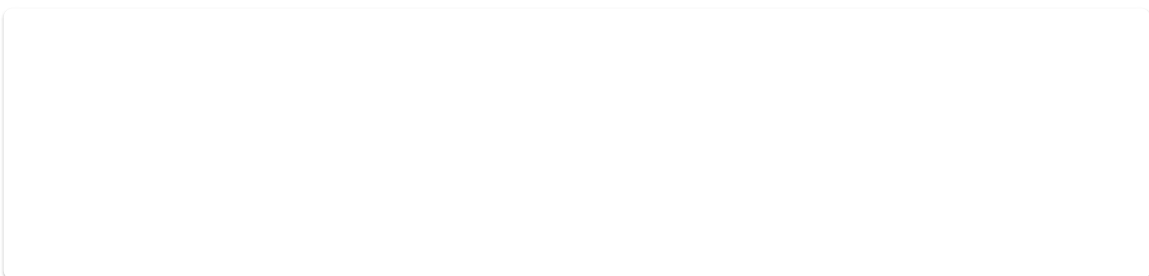
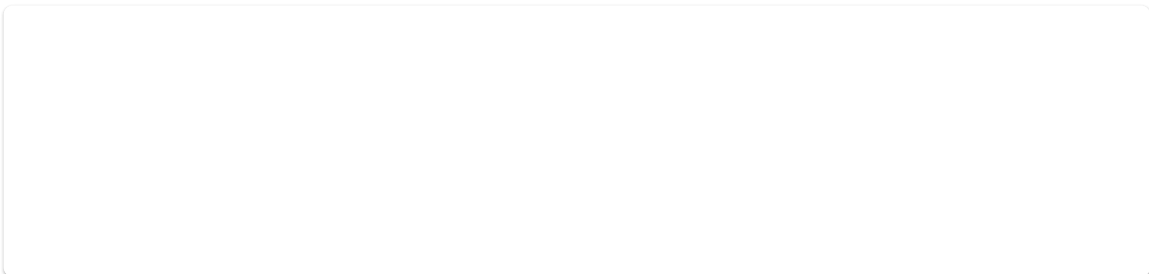
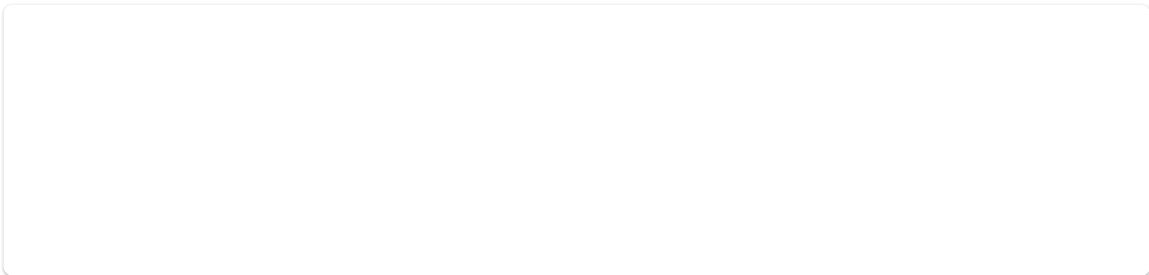
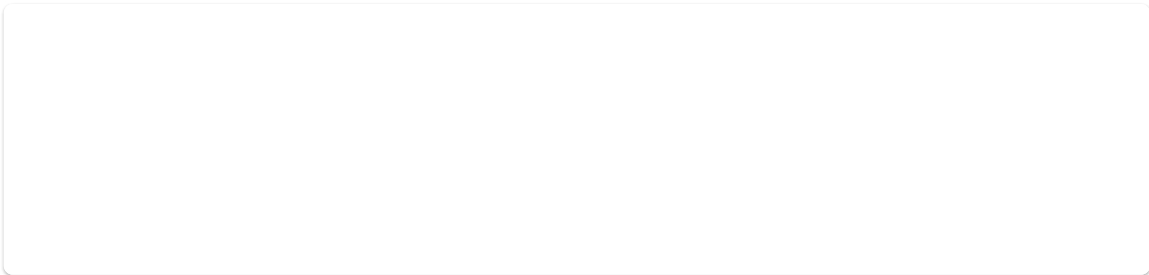
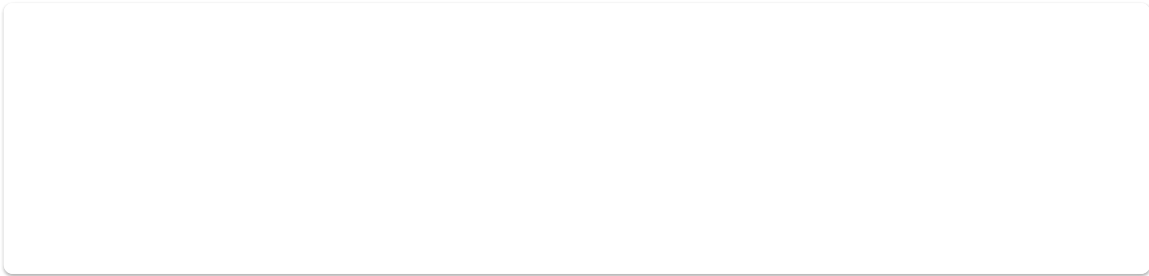
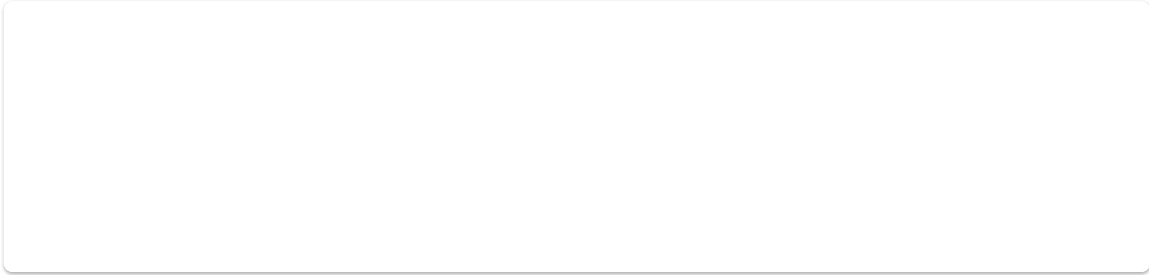
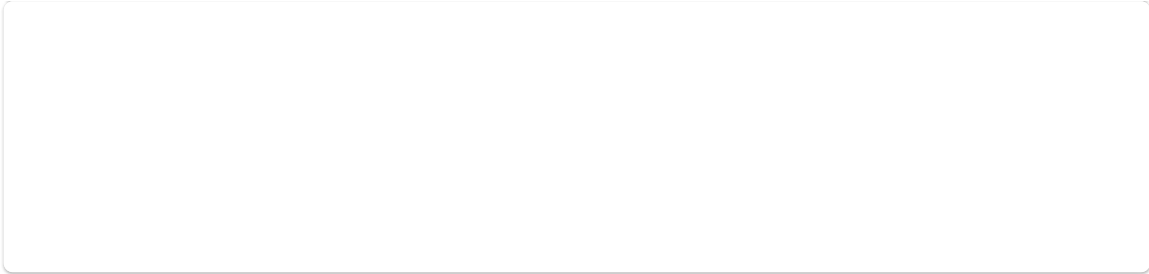
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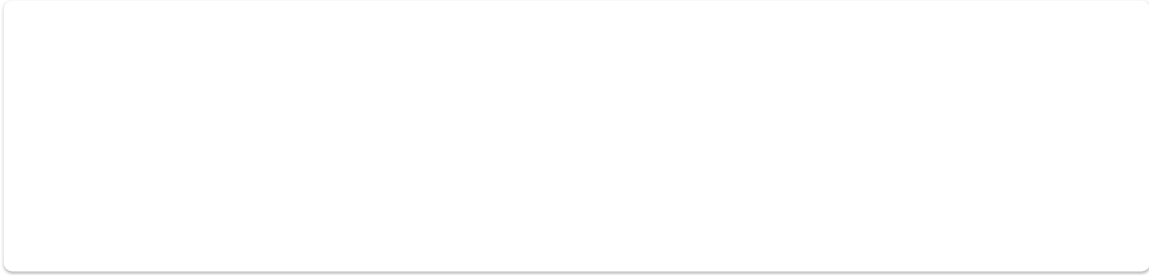
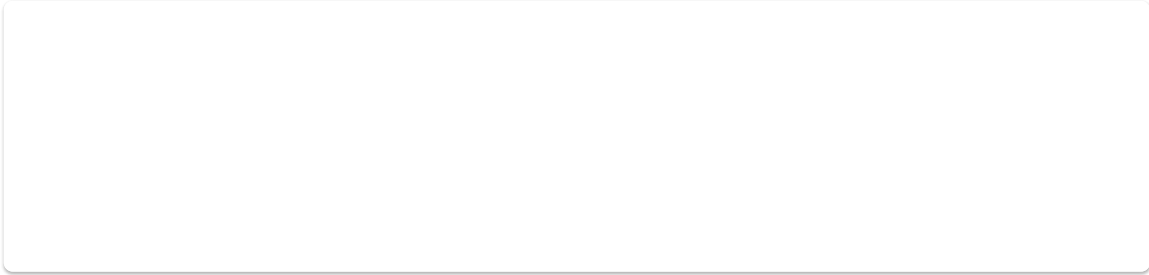
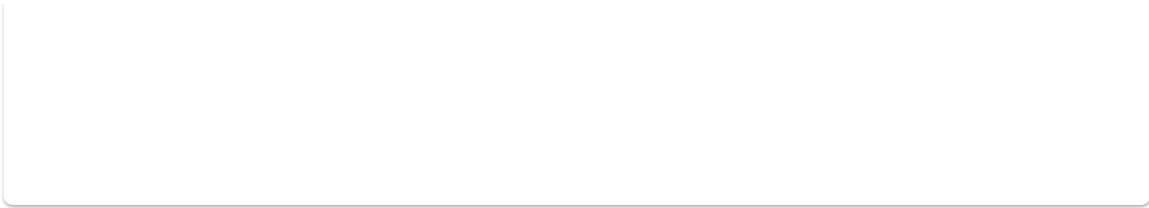
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