# Article information:

考虑转子损耗的同轴磁齿轮设计与分析 |IEEE Journals & Magazine |IEEE Xplore  
<https://ieeexplore.ieee.org/document/7111329>

# Article summary:

1. This article discusses the design and analysis of coaxial magnetic gears (CMGs) with rotor losses taken into account.

2. It examines the existing gear's losses, including iron losses and PM EC losses, and proposes a new design to reduce rotor losses.

3. The proposed design uses flux barriers in the rotor yoke to reduce main subharmonics, resulting in lower rotor losses.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

This article provides an in-depth analysis of the design and analysis of coaxial magnetic gears (CMGs) with rotor losses taken into account. The authors provide a comprehensive overview of the existing gear's losses, including iron losses and PM EC losses, as well as a detailed description of their proposed design which uses flux barriers in the rotor yoke to reduce main subharmonics, resulting in lower rotor losses. The authors also provide evidence for their claims through finite element method (FEM) simulations which validate their theoretical analyses.

The article is generally reliable and trustworthy due to its comprehensive coverage of the topic at hand and its use of evidence from FEM simulations to back up its claims. However, there are some potential biases that should be noted. For example, the authors do not explore any counterarguments or alternative solutions to reducing rotor loss other than their proposed design using flux barriers in the rotor yoke. Additionally, they do not discuss any possible risks associated with this solution or any potential drawbacks that could arise from its implementation. Furthermore, while they provide evidence for their claims through FEM simulations, they do not present any evidence from actual experiments or field tests which could further strengthen their argument.

# Topics for further research:

* Alternative solutions to reducing rotor losses
* Potential risks associated with flux barriers in rotor yoke
* Drawbacks of flux barriers in rotor yoke
* Evidence from experiments for reducing rotor losses
* Field tests for reducing rotor losses
* Coaxial magnetic gears performance evaluation

# Report location:

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