# Article information:

Comparative analysis on the anti-wheel impact performance of steel fiber and reticular polypropylene synthetic fiber reinforced airport pavement concrete under elevated temperature aging environment - ScienceDirect
<https://www.sciencedirect.com/science/article/pii/S0950061818325844>

# Article summary:

1. Airport pavement concrete is subjected to high-temperature aging and repetitive loading, leading to degradation of mechanical properties and durability, which threatens the safety of the airport.

2. Adding fibers to concrete can improve its impact resistance and energy absorption capacity, with different fiber types having different effects on concrete performance.

3. Steel fibers can inhibit the decline of dynamic elastic modulus under high-temperature aging conditions, while polypropylene fibers can increase fracture toughness and energy to resist high-temperature aging damage.

# Article rating:

Appears strongly imbalanced: The article is written in a biased or one-sided way, and the information it provides is not trustworthy enough to be considered a reliable source. You should consult other sources to find reliable information on the presented issues.

# Article analysis:

该文章主要介绍了钢纤维和网状聚丙烯合成纤维增强机场道面混凝土在高温老化环境下的抗车轮冲击性能比较分析。然而，该文章存在以下问题：

1. 偏见来源：文章没有提及其他可能的增强材料，只关注了钢纤维和聚丙烯合成纤维，这可能导致对其他材料的忽视和偏见。

2. 片面报道：文章只关注了机场道面混凝土在高温老化环境下的抗车轮冲击性能，而没有考虑其他因素对混凝土性能的影响，如湿度、气候等。

3. 无根据的主张：文章声称添加纤维可以显著提高混凝土的动态性能，但并未提供足够的证据来支持这一观点。

4. 缺失的考虑点：文章没有考虑不同类型和含量的纤维对混凝土性能的影响，并未探讨最佳添加量和类型。

5. 所提出主张缺乏证据：文章声称钢纤维可以抑制混凝土动态弹性模量下降，但并未提供足够证据来支持这一观点。

6. 未探索反驳：文章没有探讨可能存在的反驳意见或争议，并未进行充分讨论。

7. 宣传内容：文章过于宣传添加纤维对混凝土性能改善的作用，并未客观地评估其潜在风险和局限性。

8. 偏袒：文章只关注了两种特定类型的纤维增强材料，并未平等地呈现其他可能存在竞争优势或更适合特定工程需求的材料。

# Topics for further research:

* Other reinforcement materials
* Other factors affecting concrete performance
* Insufficient evidence for fiber addition benefits
* Influence of different fiber types and amounts
* Lack of evidence for steel fiber's effect on dynamic modulus
* Lack of discussion on potential counterarguments or controversies
* Overemphasis on fiber addition benefits
* Bias towards specific fiber reinforcement materials

# Report location:

<https://www.fullpicture.app/item/ac78eda31a69e1e3a7c5569df6ea85ef>