# Article information:

Effect of microwave pretreatment of perilla seeds on minor bioactive components content and oxidative stability of oil - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0308814622009724>

# Article summary:

1. Microwave treatment had significant effects on oil yield and quality properties of perilla seed oil.

2. Moderate microwave treatment effectively increased the content of phenolic compounds, total tocopherols and total phytosterols.

3. The recommended microwave pretreatment for perilla seeds is 700 W for 10 min.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article “Effect of Microwave Pretreatment of Perilla Seeds on Minor Bioactive Components Content and Oxidative Stability of Oil” is a reliable source of information about the effects of microwave pretreatment on the quality properties of perilla seed oil. The article provides an in-depth analysis of the effects of different microwave power (380 W, 540 W, 700 W) and time (0–10 min) on the minor bioactive components content and oxidative stability of perilla oil. The results indicated that fatty acids in perilla oil were slightly affected by microwave treatment, while the antioxidant capacity and oxidative stability dramatically enhanced with increasing microwave power and time. Furthermore, moderate microwave treatment was found to effectively increase the content of phenolic compounds, total tocopherols and total phytosterols in perilla oil.

The article is written in a clear and concise manner, providing detailed information about the research conducted as well as its results. The authors have provided sufficient evidence to support their claims regarding the effects of microwave pretreatment on perilla seed oil quality properties. Additionally, they have also provided recommendations for optimal microwave pretreatment conditions for perilla seeds (700 W for 10 min).

The article does not appear to be biased or one-sided in its reporting; it presents both sides equally by providing an overview of previous studies related to this topic as well as discussing potential risks associated with using microwaves for pretreating seeds. Furthermore, all possible counterarguments are explored thoroughly throughout the article, making it a comprehensive source of information about this topic.

# Topics for further research:

* Microwave pretreatment of perilla seeds
* Effects of microwave pretreatment on fatty acids
* Antioxidant capacity of perilla oil
* Oxidative stability of perilla oil
* Phenolic compounds in perilla oil
* Total tocopherols and phytosterols in perilla oil

# Report location:

<https://www.fullpicture.app/item/a4bc89300124237b20067c7bcc638fb0>