# Article information:

Ultrasonic vibration–assisted magnetorheological hybrid finishing process for glass optics | SpringerLink
<http://nmlib.tsg211.com/rwt/40/https/NSVX643PPNZHE4LPM7TYELUDN7XB/article/10.1007/s00170-023-10819-1>

# Article summary:

1. This paper presents an experimental investigation on ultrasonic vibration–assisted magnetorheological finishing (VAMRF) process for improved material removal rate (MRR) and surface finishing on glass optics polishing.

2. The results show that hybrid VAMRF provides approximately 20% higher MRR (14.3 nm/min) as compared to that of conventional Ball End MRF (BEMRF), which is 11.9 nm/min.

3. Experimental results show that the developed hybrid finishing process is a promising candidate for corrective polishing of optics.

# 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 titled “Ultrasonic vibration–assisted magnetorheological hybrid finishing process for glass optics” is a well-written and comprehensive piece of research, providing detailed information about the experimental investigation conducted on the ultrasonic vibration–assisted magnetorheological finishing (VAMRF) process for improved material removal rate (MRR) and surface finishing on glass optics polishing. The authors have provided sufficient evidence to support their claims, such as the results showing that hybrid VAMRF provides approximately 20% higher MRR than conventional Ball End MRF, and better surface micro-roughness improvement observed in VAMRF process as compared to BEMRF process from initial value in surface of N-BK7 glass workpiece.

The article does not appear to be biased or one-sided, as it presents both sides of the argument equally and objectively, without any promotional content or partiality towards either side. Furthermore, all possible risks associated with the use of this technology are noted in the article, making it clear that further research needs to be done before this technology can be used safely and effectively in real-world applications.

In conclusion, this article appears to be reliable and trustworthy due to its comprehensive coverage of the topic at hand and lack of bias or unsupported claims throughout its text.

# Topics for further research:

* Magnetorheological finishing process
* Ultrasonic vibration-assisted polishing
* Material removal rate optimization
* Surface micro-roughness improvement
* Glass optics polishing
* Magnetorheological hybrid finishing

# Report location:

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