# Article information:

Development of hydrophilic anti-crease finishing method for Cotton fabric using alpha-Lipoic acid without causing strength loss and formaldehyde release problem - ScienceDirect
[https://www.sciencedirect.com/science/article/pii/S0300944020312534?ref=pdf\_download=RR-9=79635511df400486](https://www.sciencedirect.com/science/article/pii/S0300944020312534?ref=pdf_download&fr=RR-9&rr=79635511df400486)

# Article summary:

1. Alpha-Lipoic acid was used to prepare anti-crease cotton fabrics without formaldehyde release for the first time.

2. The tensile strength of the anti-crease cotton fabric was higher than the pristine cotton.

3. The hydrophilicity of anti-crease cotton fabric was superior to that treated by BTCA and DMDHEU.

# 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:

The article is generally reliable and trustworthy, as it provides a detailed overview of the research conducted on the development of hydrophilic anti-crease finishing method for Cotton fabric using alpha-Lipoic acid without causing strength loss and formaldehyde release problem. It is well written and provides a comprehensive overview of the research conducted, including an explanation of the mechanism between ALA and cellulose through esterification, disulfide breaking and reconstruction, and anti-crease mechanism based on topological disulfide bridges among cellulosic molecules. The article also provides evidence for its claims in terms of characterization analyses of cross-linked ALA and poly(α-lipoic acid).

The only potential bias in this article is that it does not provide any counterarguments or explore any possible risks associated with using alpha-Lipoic acid as an anti-crease agent. However, this is likely due to the fact that this is a research paper rather than a news article or opinion piece, so it is not expected to present both sides equally or explore counterarguments or risks associated with its findings.

# Topics for further research:

* Alpha-Lipoic Acid safety
* Alpha-Lipoic Acid toxicity
* Cotton fabric finishing methods
* Cellulose esterification
* Disulfide bridge formation
* Topological disulfide bridges

# Report location:

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