# Article information:

Flexible Sulfide Electrolyte Thin Membrane with Ultrahigh Ionic Conductivity for All-Solid-State Lithium Batteries | Nano Letters
<https://pubs.acs.org/doi/abs/10.1021/acs.nanolett.1c01344>

# Article summary:

1. The article discusses the development of a flexible sulfide electrolyte thin membrane with ultrahigh ionic conductivity for all-solid-state lithium batteries.

2. The reagents used to create the membrane include PTFE fine powder, Li2S, P2S5, and LiCl.

3. The membrane was created by ball milling the reagents together and pressing them through a hot calendering machine at 80°C.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article is generally reliable and trustworthy in its reporting of the development of a flexible sulfide electrolyte thin membrane with ultrahigh ionic conductivity for all-solid-state lithium batteries. The article provides detailed information on the materials used to create the membrane as well as the steps taken to create it. It also provides images of XRD and SEM which further support its claims. However, there are some potential biases that should be noted in order to ensure accuracy in reporting. For example, there is no mention of any potential risks associated with using this type of membrane or any other possible alternatives that could be explored. Additionally, there is no discussion of any counterarguments or opposing views which could provide a more balanced perspective on the topic. Furthermore, there is no evidence provided to support some of the claims made in the article such as how effective this type of membrane will be in practice or what kind of performance can be expected from it. Finally, it should also be noted that some promotional content may have been included in order to increase interest in this new technology which could lead to bias in reporting.

# Topics for further research:

* Risks associated with all-solid-state lithium batteries
* Alternatives to sulfide electrolyte thin membrane
* Counterarguments to all-solid-state lithium batteries
* Performance of all-solid-state lithium batteries
* Real-world applications of all-solid-state lithium batteries
* Impact of all-solid-state lithium batteries on the environment

# Report location:

<https://www.fullpicture.app/item/a19fb00496ffbf393c747b4e6a9ff178>