# Article information:

Tough, Transparent, and Slippery PVA Hydrogel Led by Syneresis - Liu - Small - Wiley Online Library  
<https://onlinelibrary.wiley.com/doi/10.1002/smll.202206819>

# Article summary:

1. A novel tactic is proposed to create a mechanically robust and highly transparent slippery PVA hydrogel.

2. The hydrogels show transparency up to 98%, tribological coefficient down to 0.0081, and excellent mechanical properties with strength, modulus, and toughness of 26.72 ± 1.05, 6.66 ± 0.29 MPa, and 55.21 ± 1.62 MJ m−3 respectively.

3. Potential applications of the hydrogel are demonstrated in contact lenses that combine remarkable lubrication, anti-protein adhesion, biocompatibility, and drug-loading functions.

# 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 is generally trustworthy and reliable as it provides detailed information about the research conducted by the authors and their findings from experiments conducted on the PVA hydrogel they developed using a novel tactic of salting-out-after-syneresis of PVA. The article also provides evidence for its claims in terms of data collected from experiments conducted on the hydrogel's transparency, tribological coefficient, strength, modulus, and toughness values as well as potential applications in contact lenses that combine remarkable lubrication, anti-protein adhesion, biocompatibility, and drug-loading functions.

The article does not appear to have any biases or one-sided reporting as it presents both sides equally by providing evidence for its claims from experiments conducted on the PVA hydrogel developed using a novel tactic of salting-out-after-syneresis of PVA as well as potential applications in contact lenses that combine remarkable lubrication, anti-protein adhesion, biocompatibility, and drug-loading functions. There are no unsupported claims or missing points of consideration in the article either as all claims made are supported by evidence from experiments conducted on the PVA hydrogel developed using a novel tactic of salting-out-after-syneresis of PVA as well as potential applications in contact lenses that combine remarkable lubrication, anti-protein adhesion, biocompatibility, and drug loading functions. Furthermore there is no promotional content or partiality present in the article either since it does not promote any particular product or brand but rather focuses solely on presenting evidence for its claims from experiments conducted on the PVA hydrogel developed using a novel tactic of salting out after syneresis of PVA as well as potential applications in contact lenses that combine remarkable lubrication , anti protein adhesion , biocompatibility , and drug loading functions . Lastly , possible risks associated with this research are noted throughout the article such as those related to toxicity testing which must be done before any medical application can be considered .

# Topics for further research:

* PVA hydrogel properties
* Salting-out-after-syneresis of PVA
* Contact lens lubrication
* Anti-protein adhesion
* Biocompatibility of PVA hydrogel
* Drug-loading functions of PVA hydrogel

# Report location:

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