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(54) **Title:** ULTRA-HIGH MOLECULAR WEIGHT POLYMERS AND METHODS OF USING THE SAME

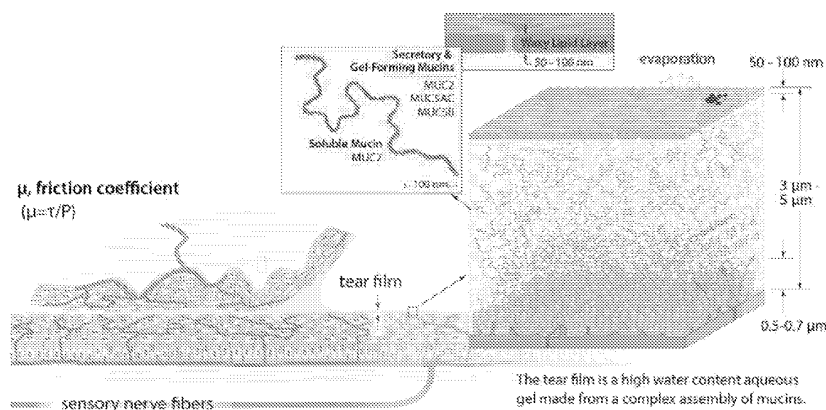


Figure 2

(57) **Abstract:** The present disclosure provides for compositions including at least one type of watersoluble polymer, methods of making the water-soluble polymer, structures having the watersoluble polymer disposed thereof, and methods of use thereof. The water-soluble polymer of the present disclosure can be used for gelation and restoration of the functional biological properties of mucinated networks and surfaces.

[Continued on next page]

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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