

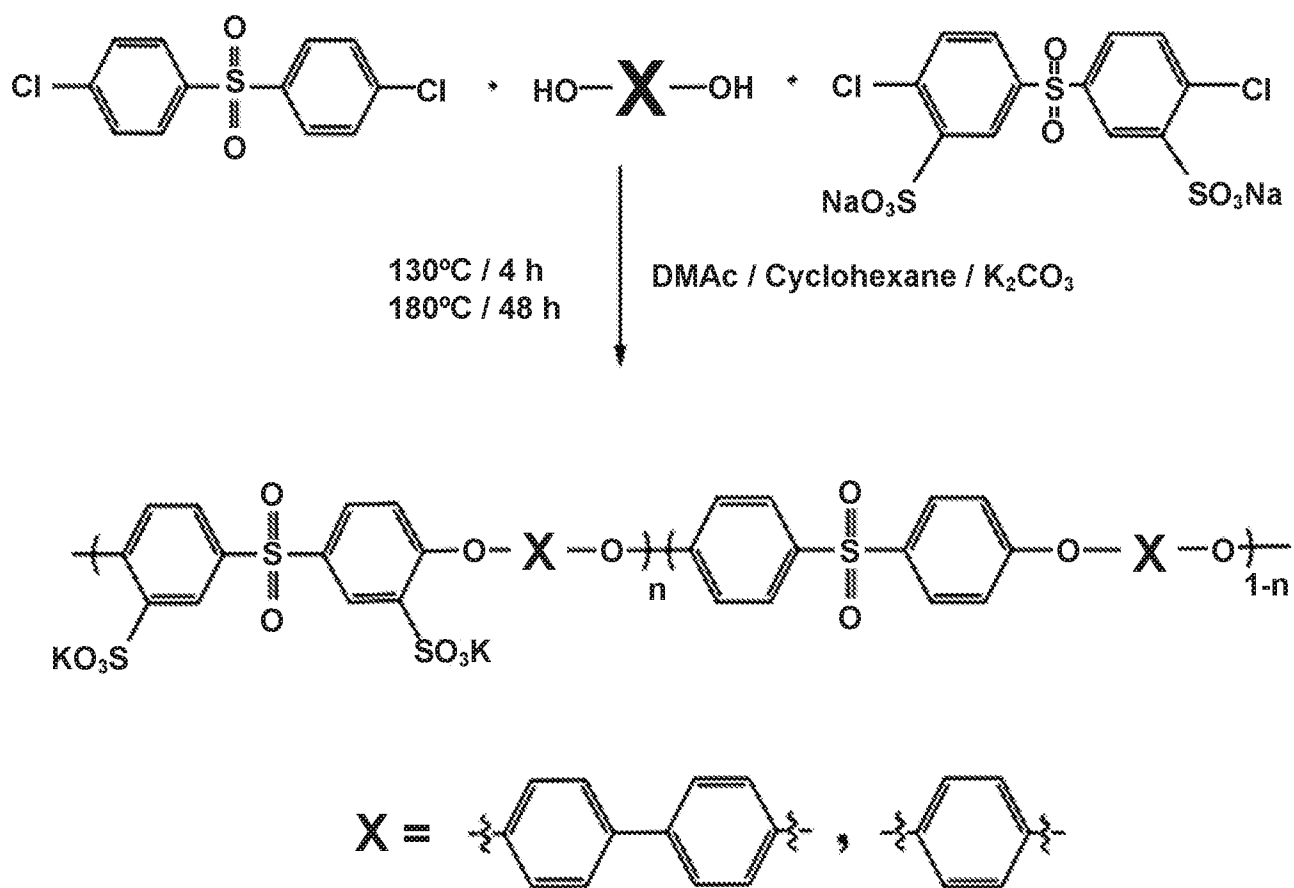


FIG. 1

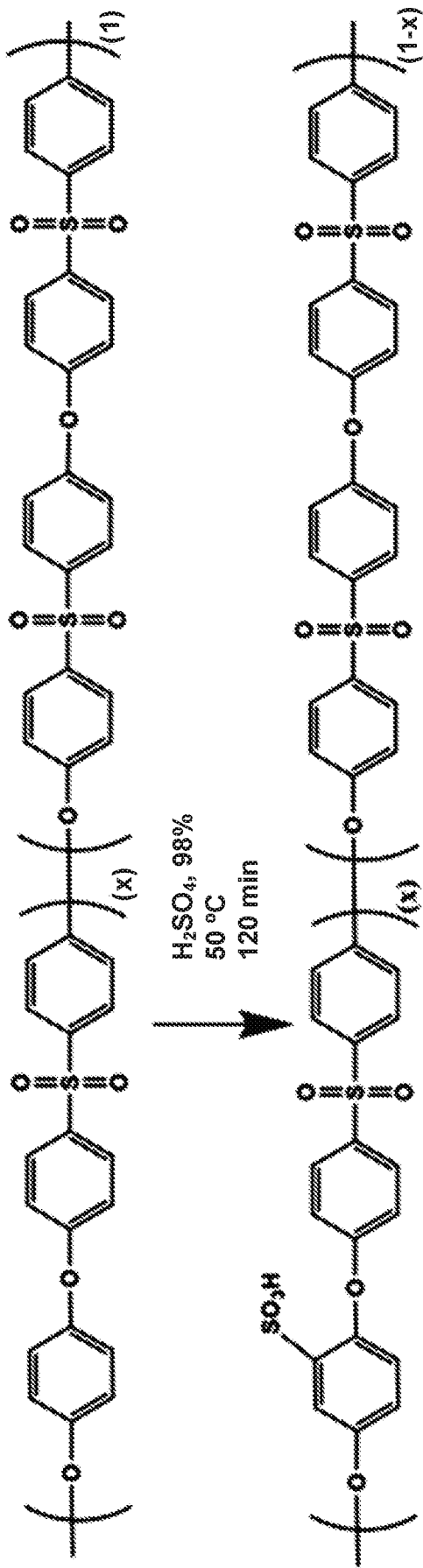


FIG. 2

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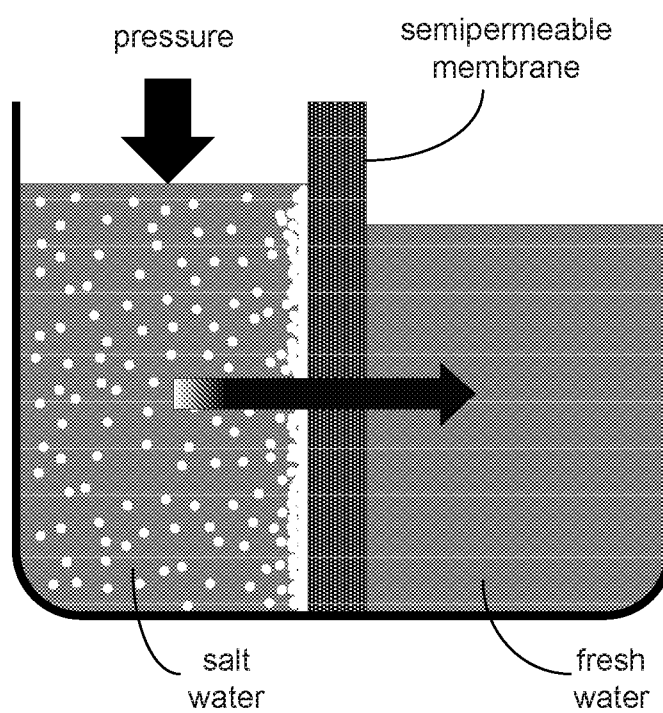


FIG. 3

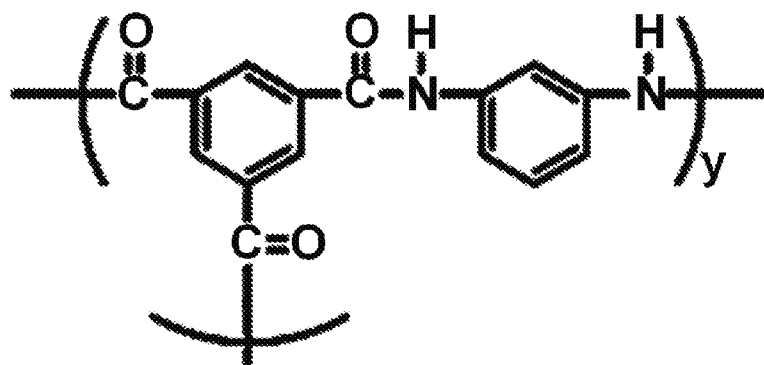


FIG. 4

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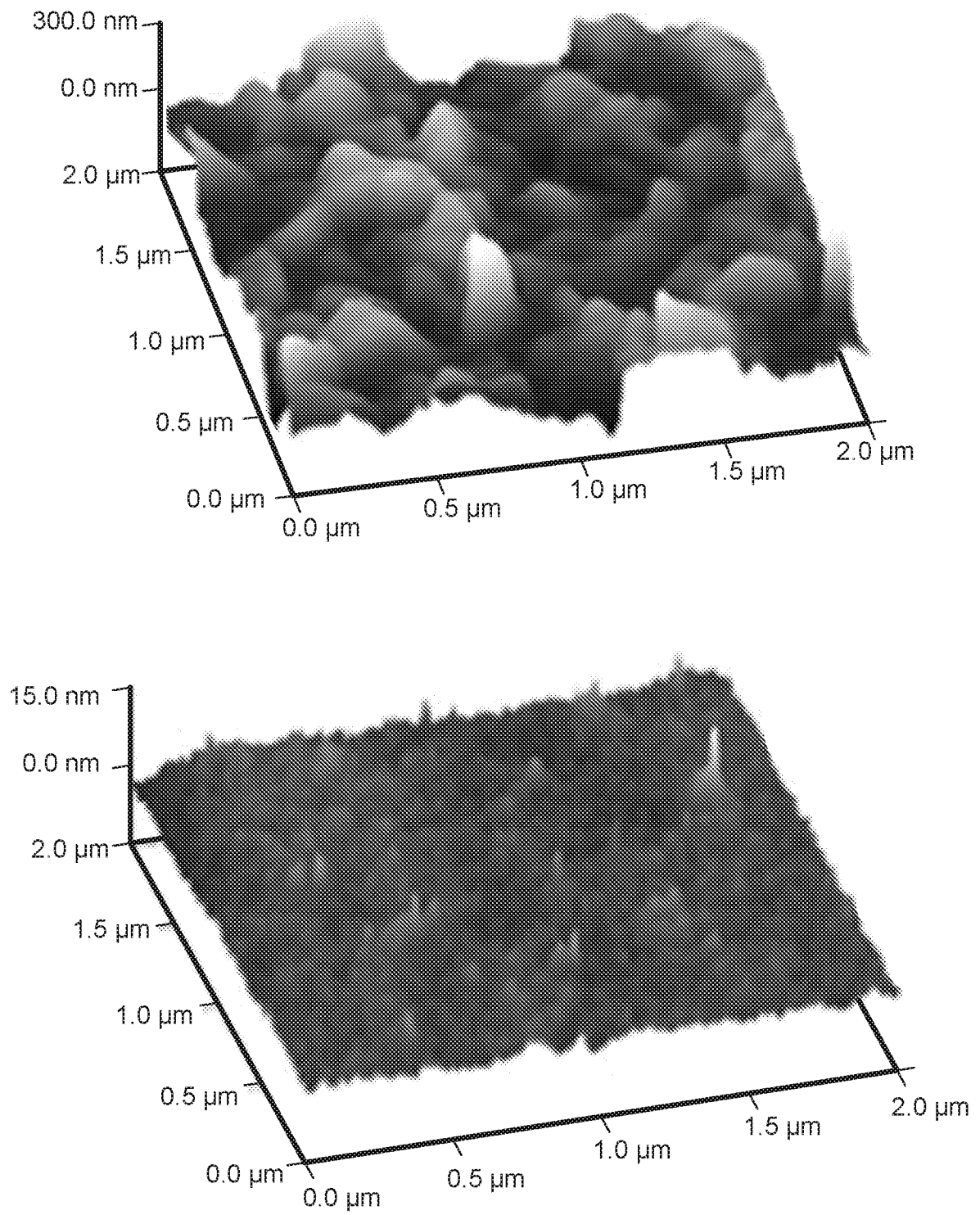


FIG. 5

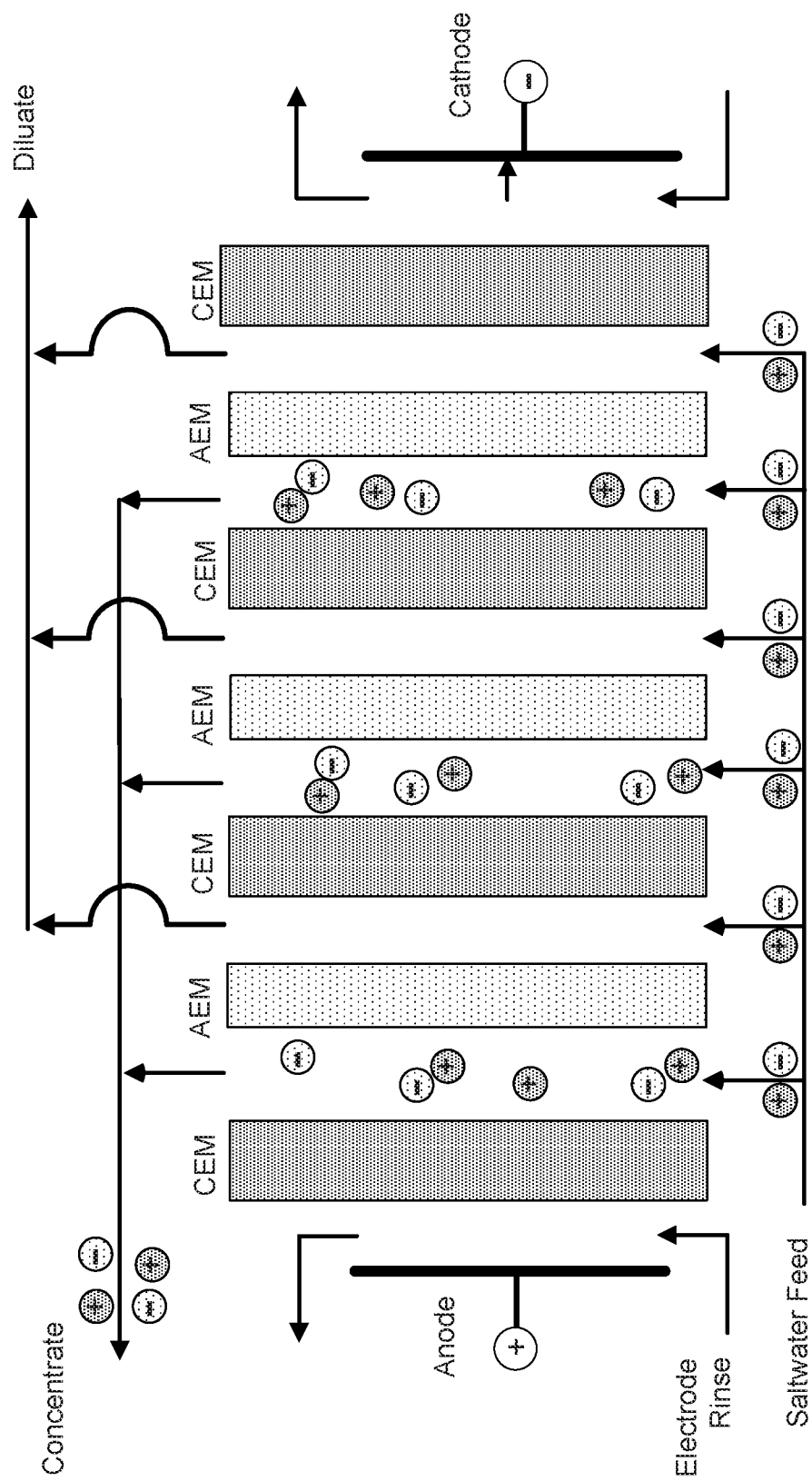


FIG. 6

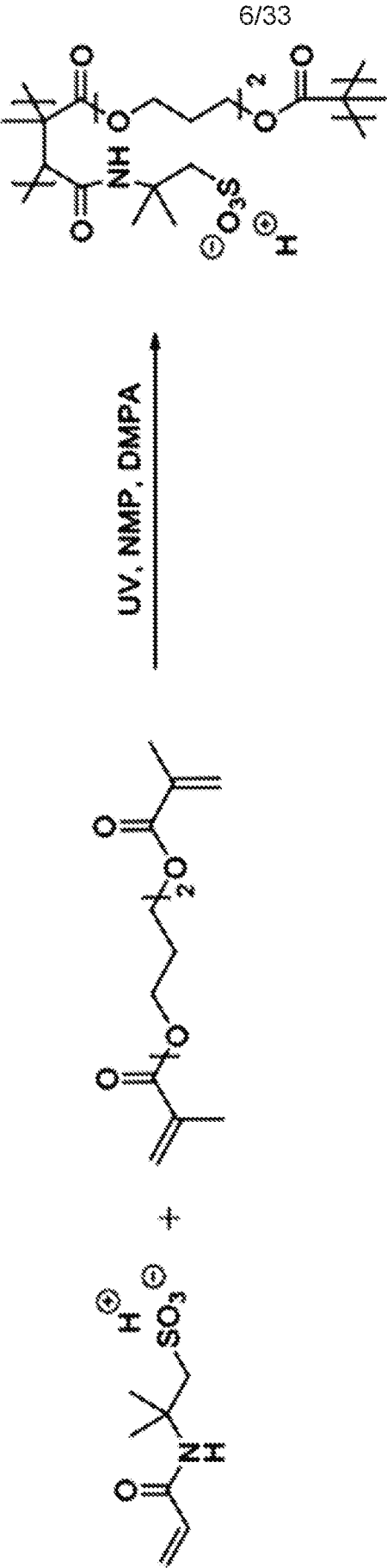


FIG. 7

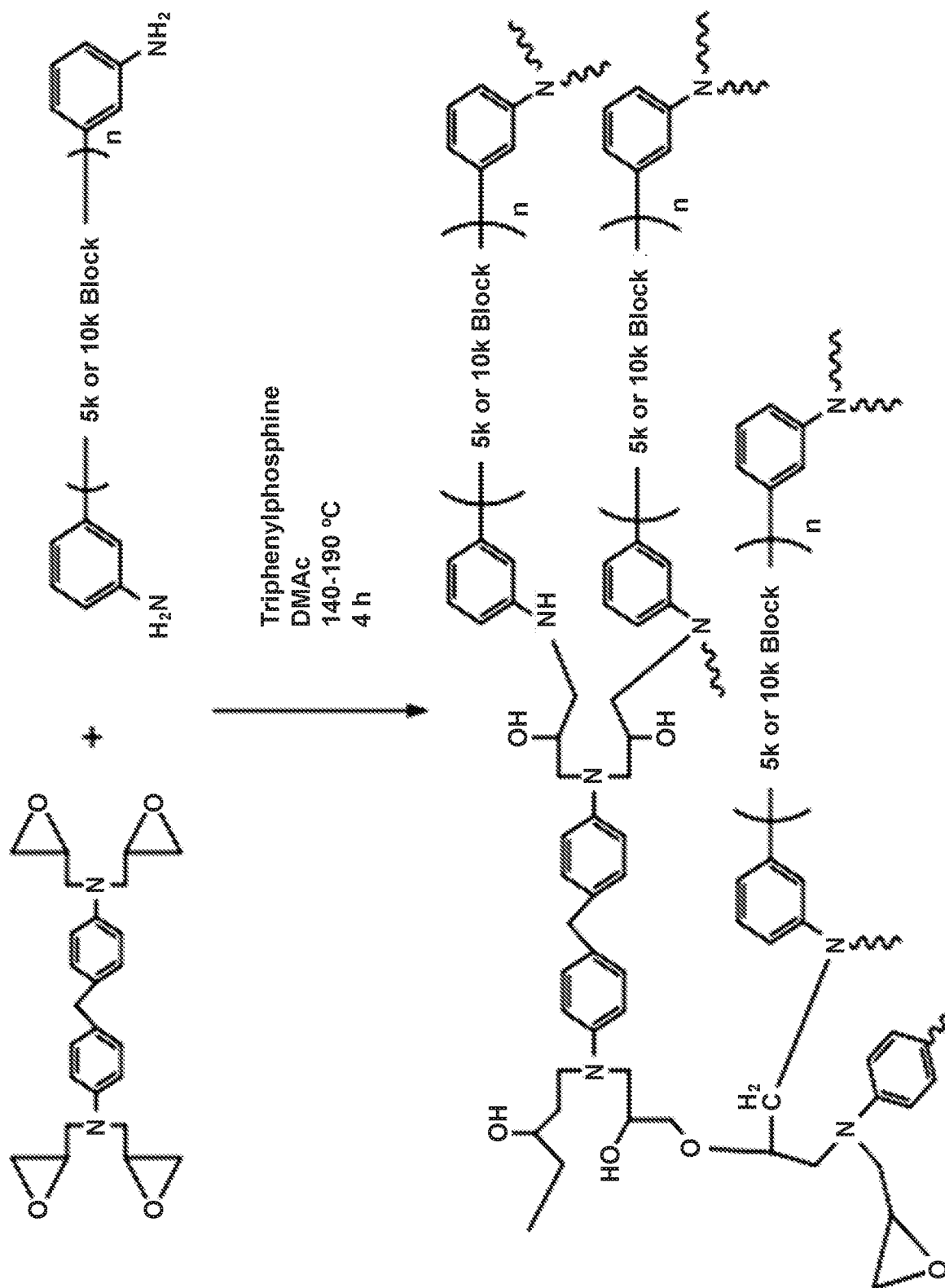


FIG. 8

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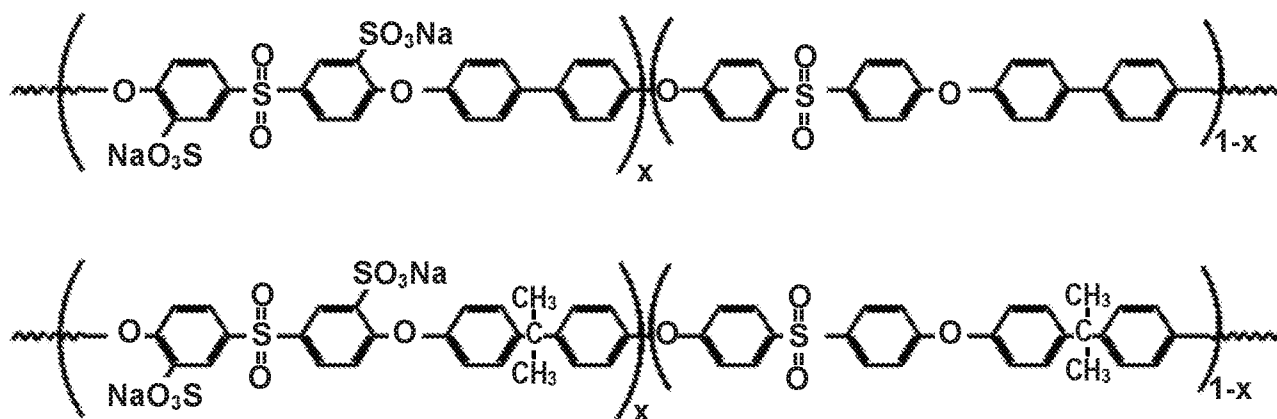
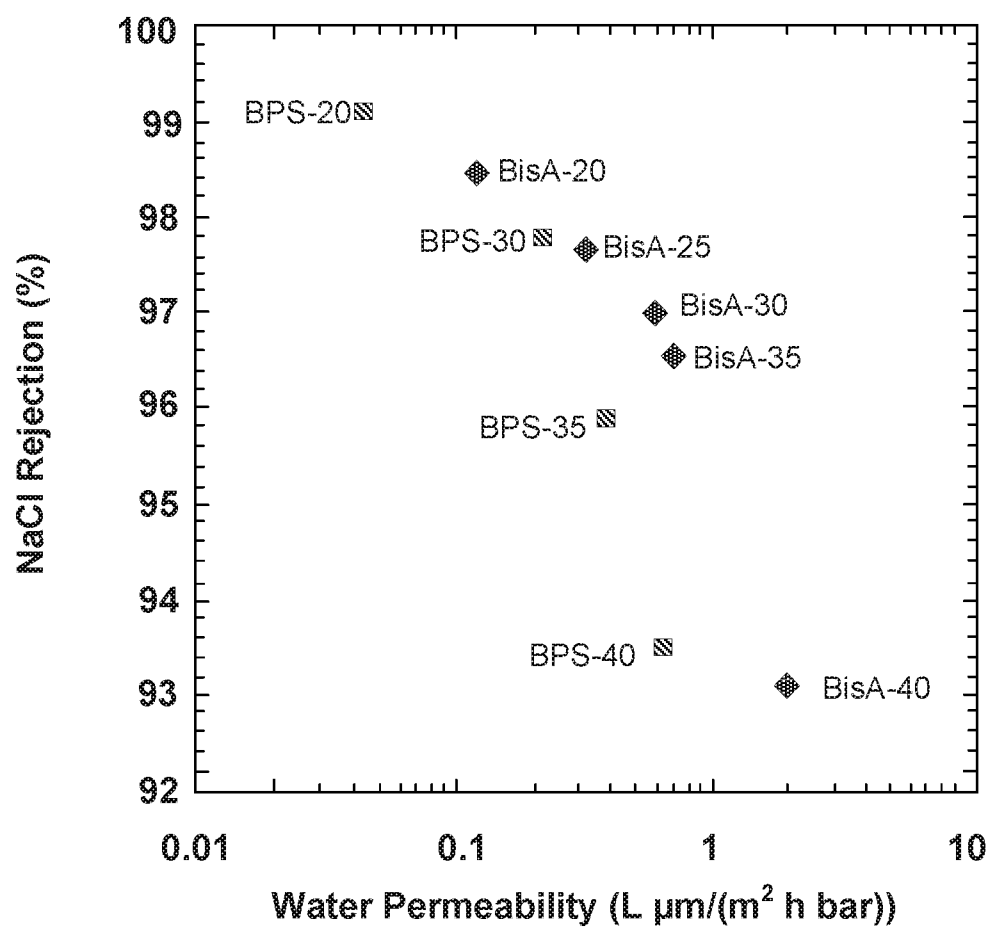


FIG. 9

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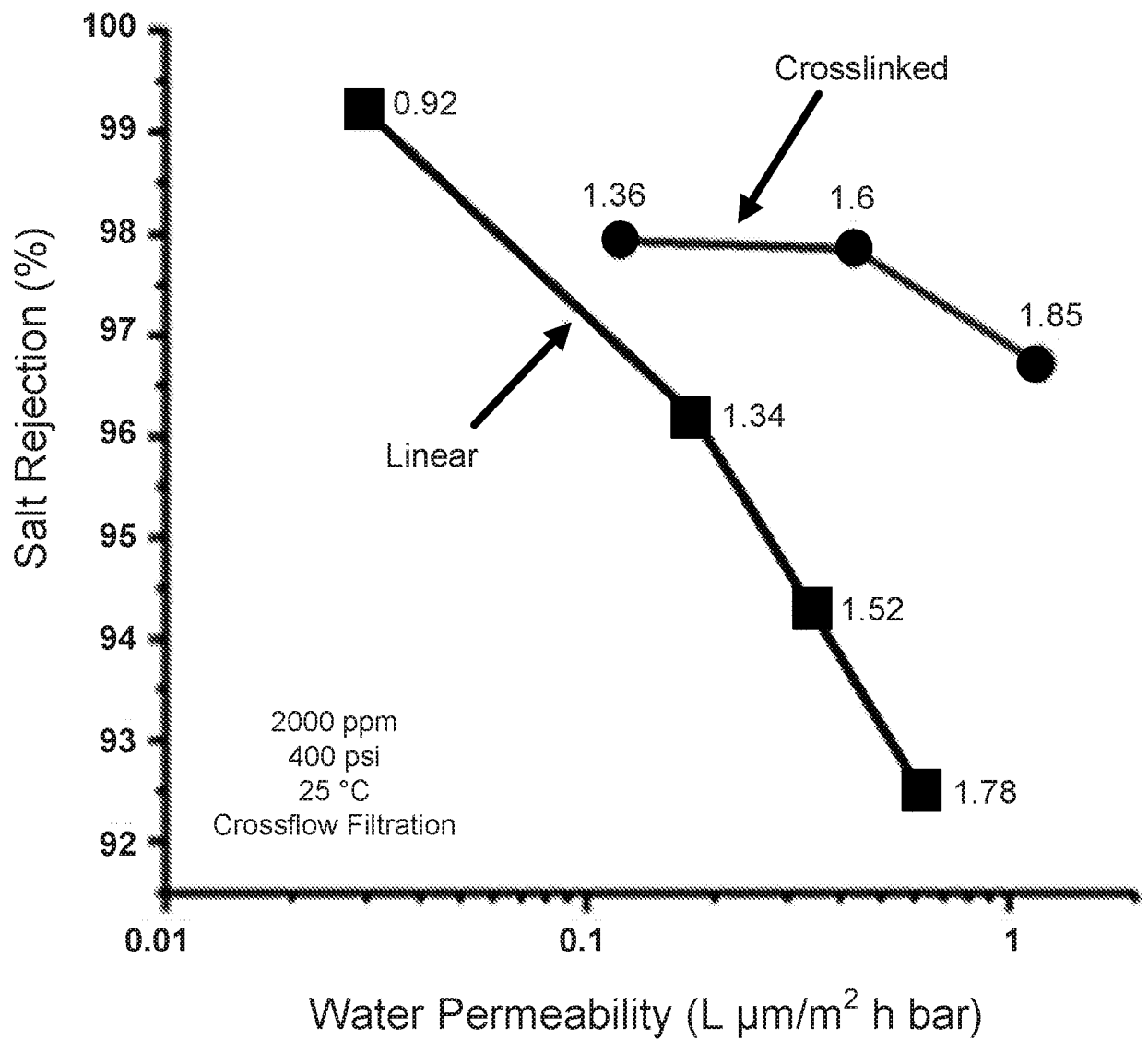


FIG. 10

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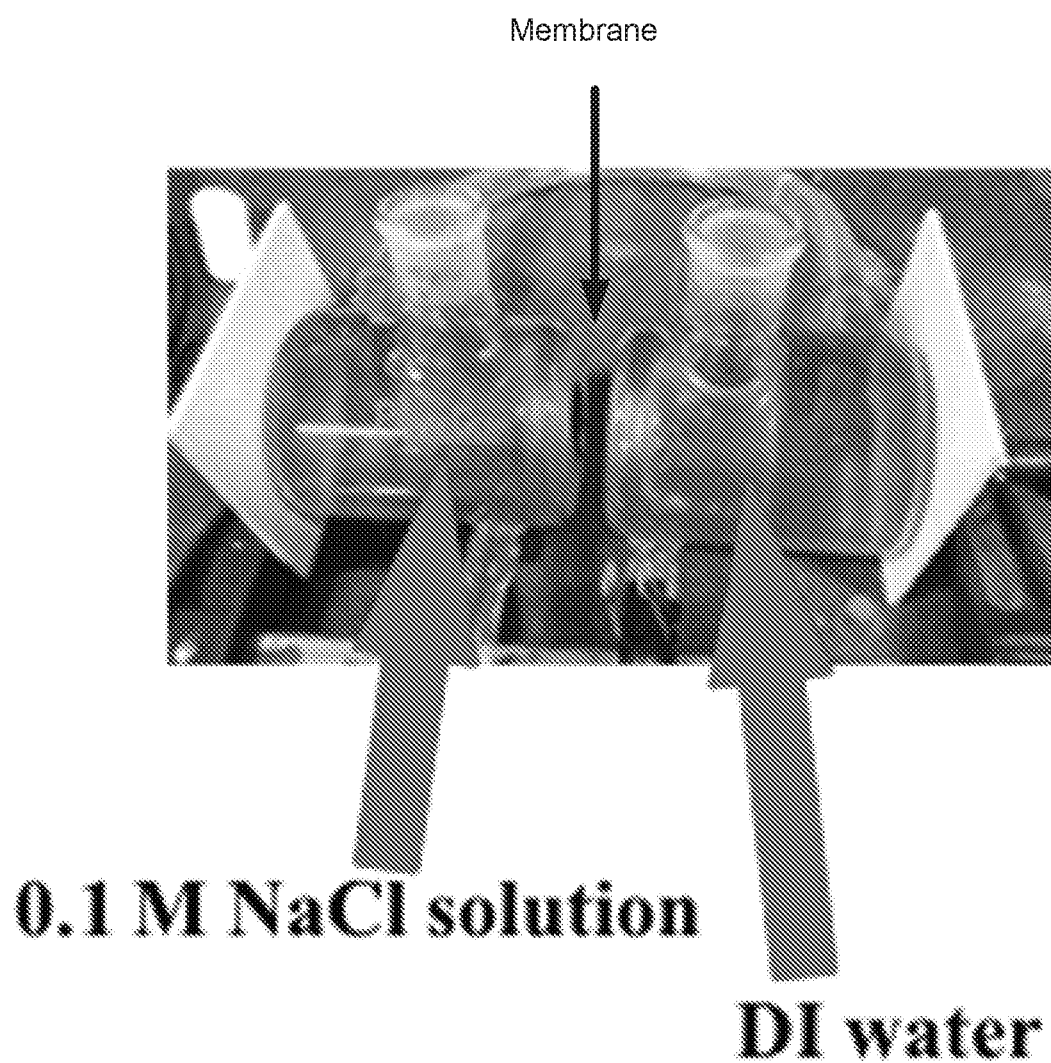


FIG. 11

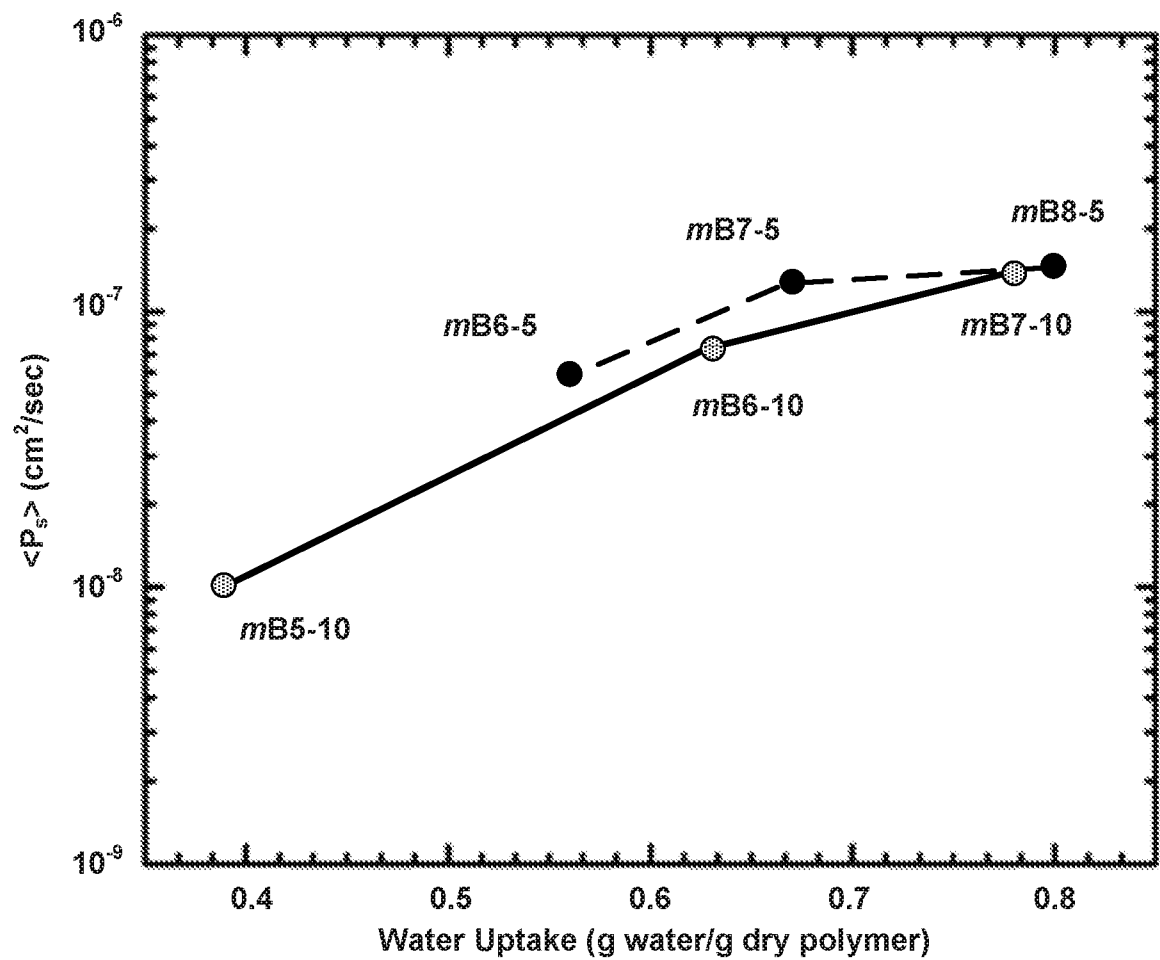


FIG. 12

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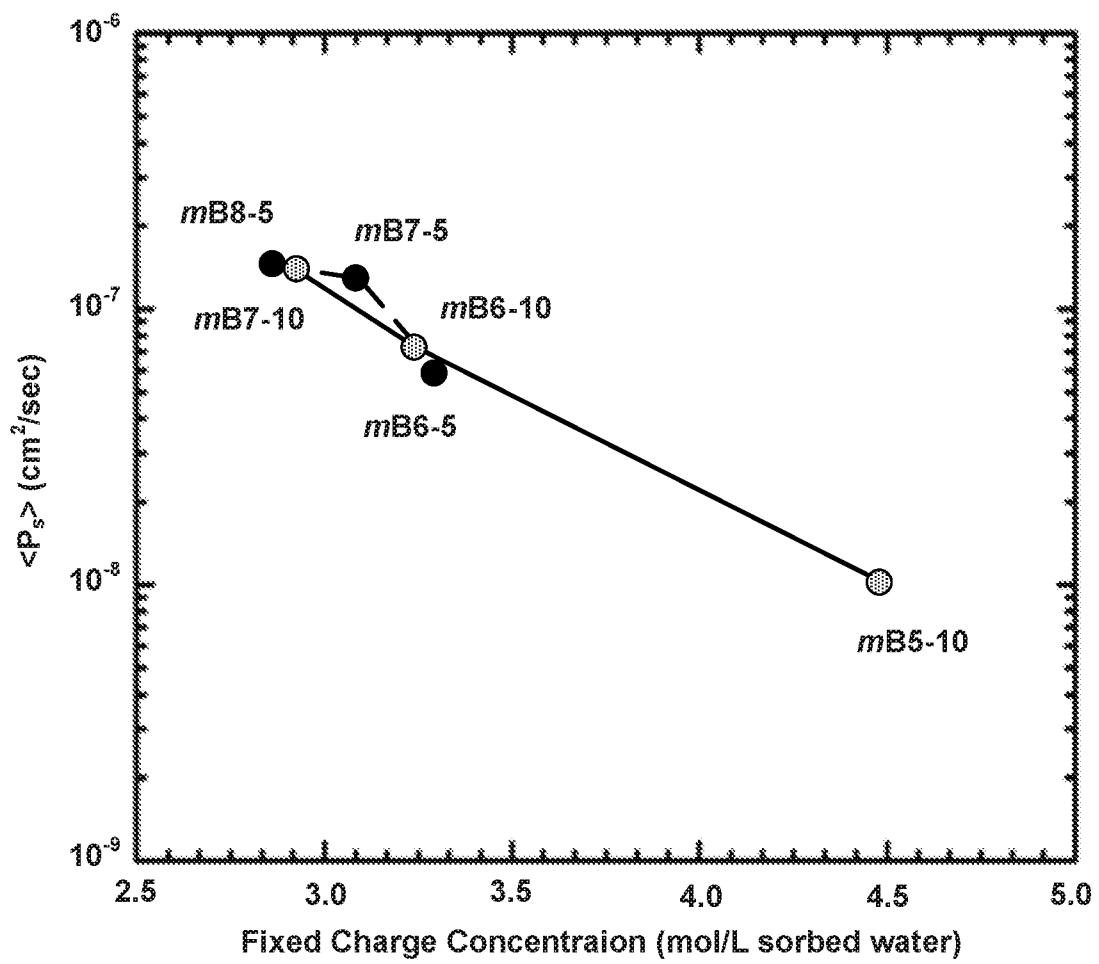


FIG. 13

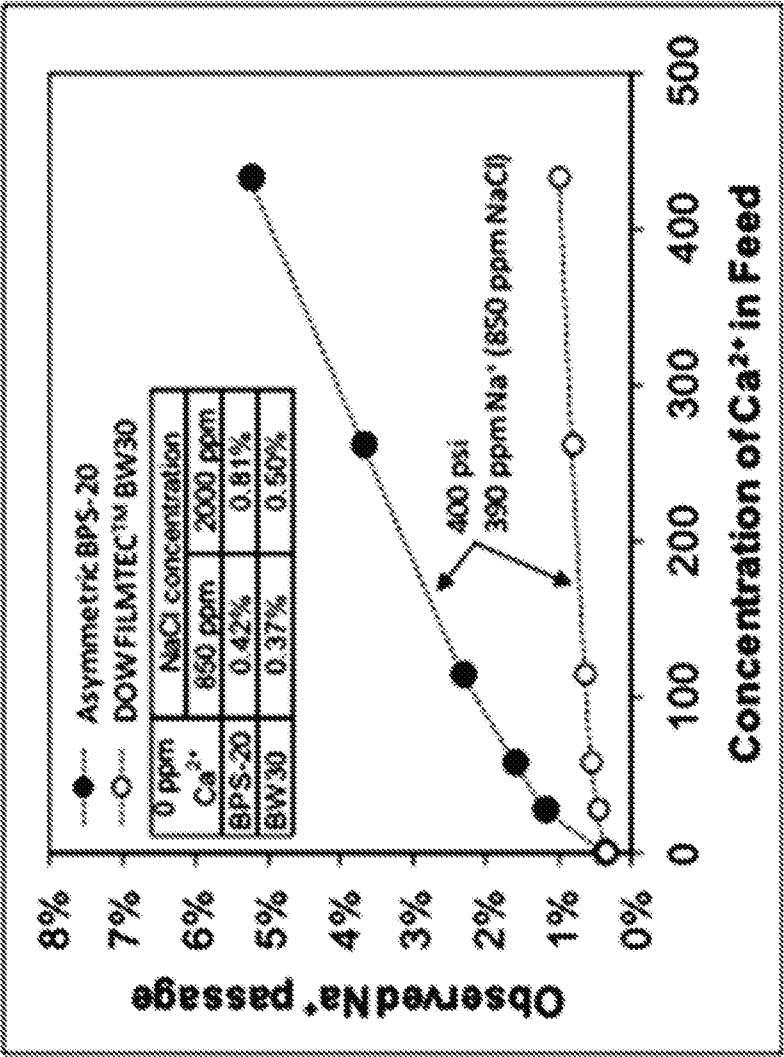
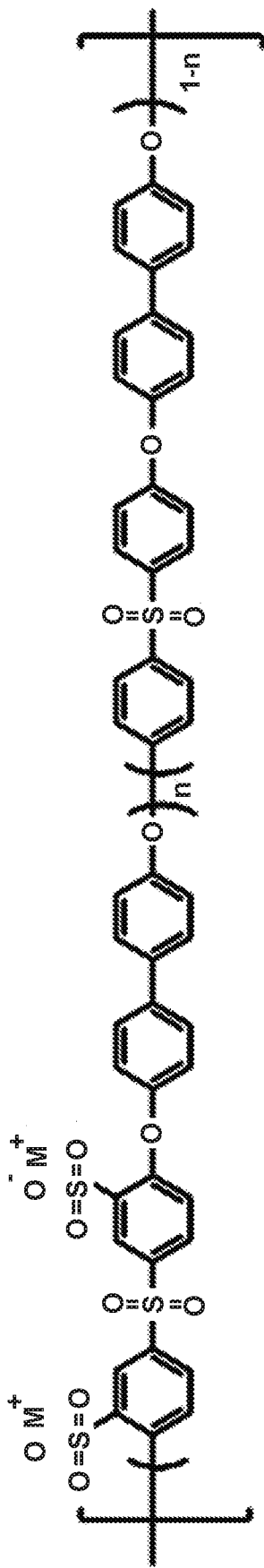


FIG. 14

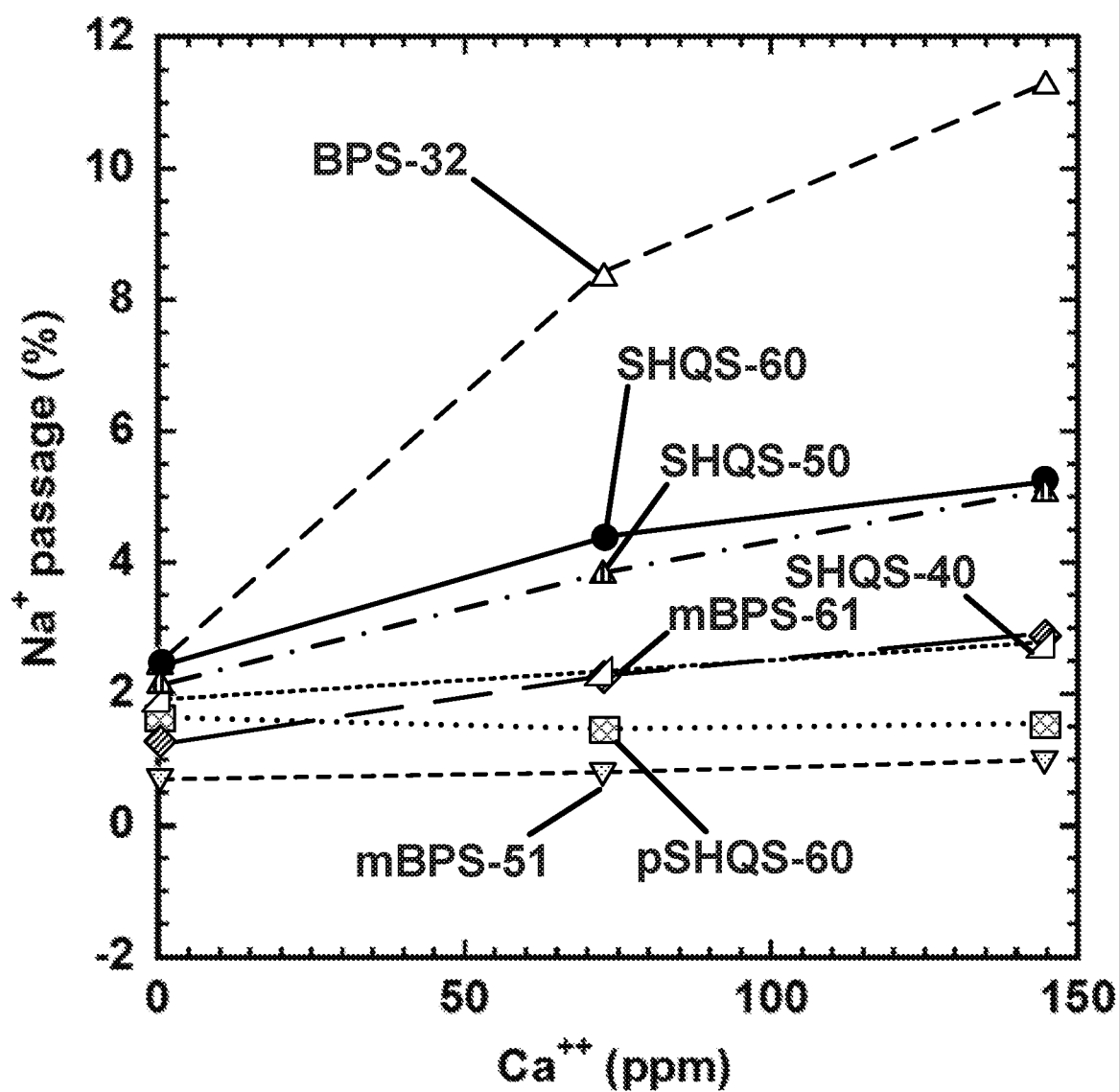
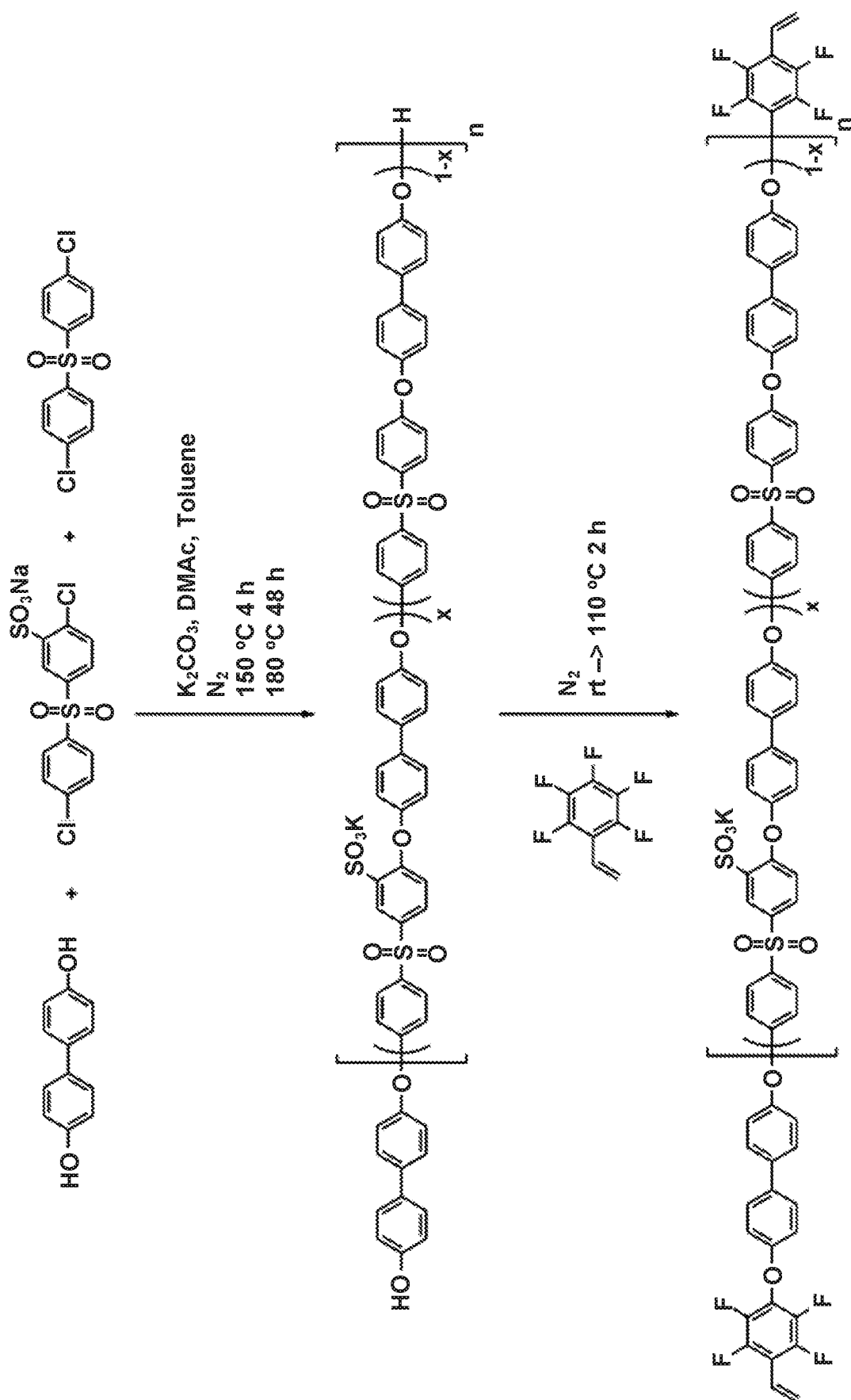


FIG. 15



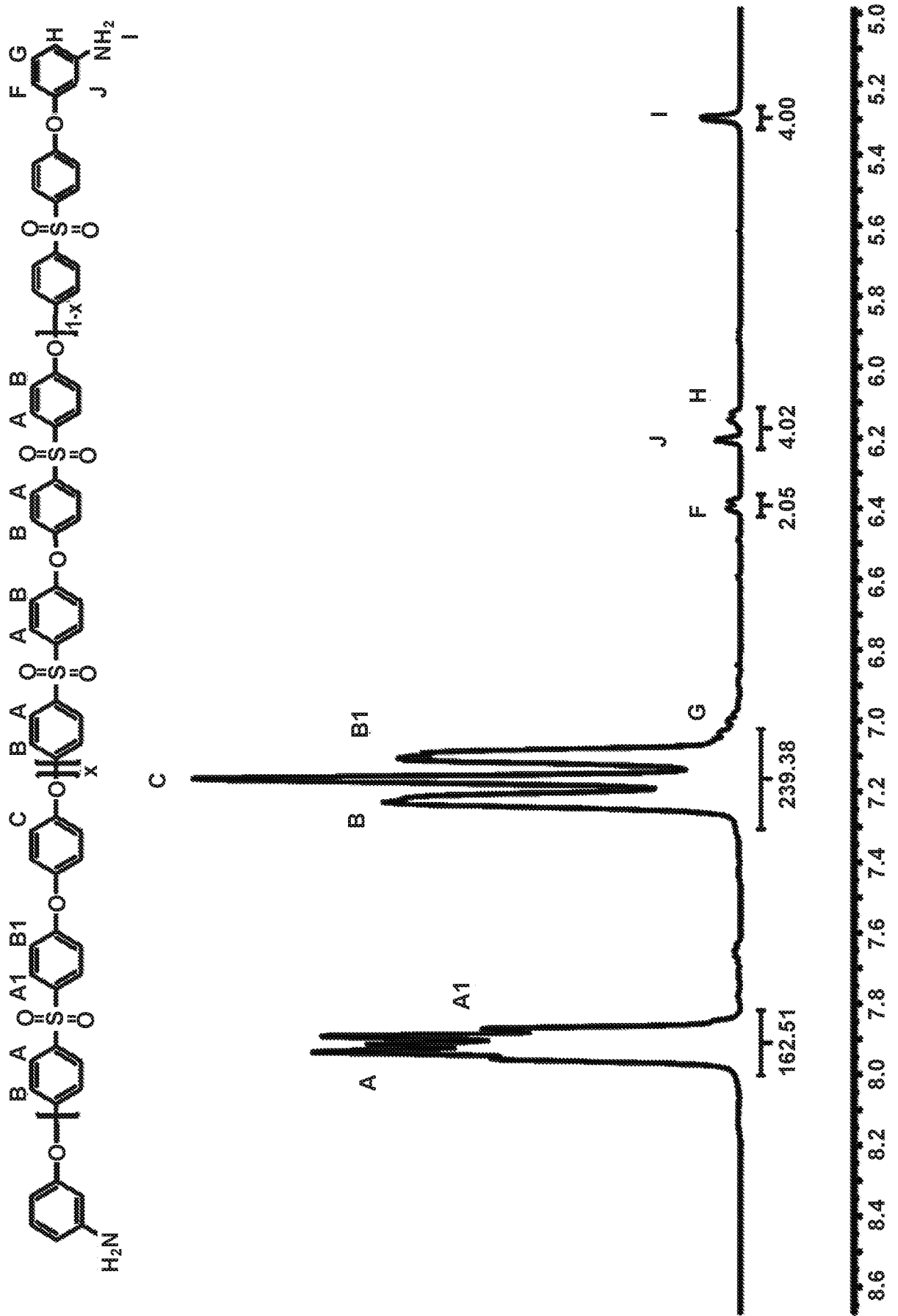


FIG. 17

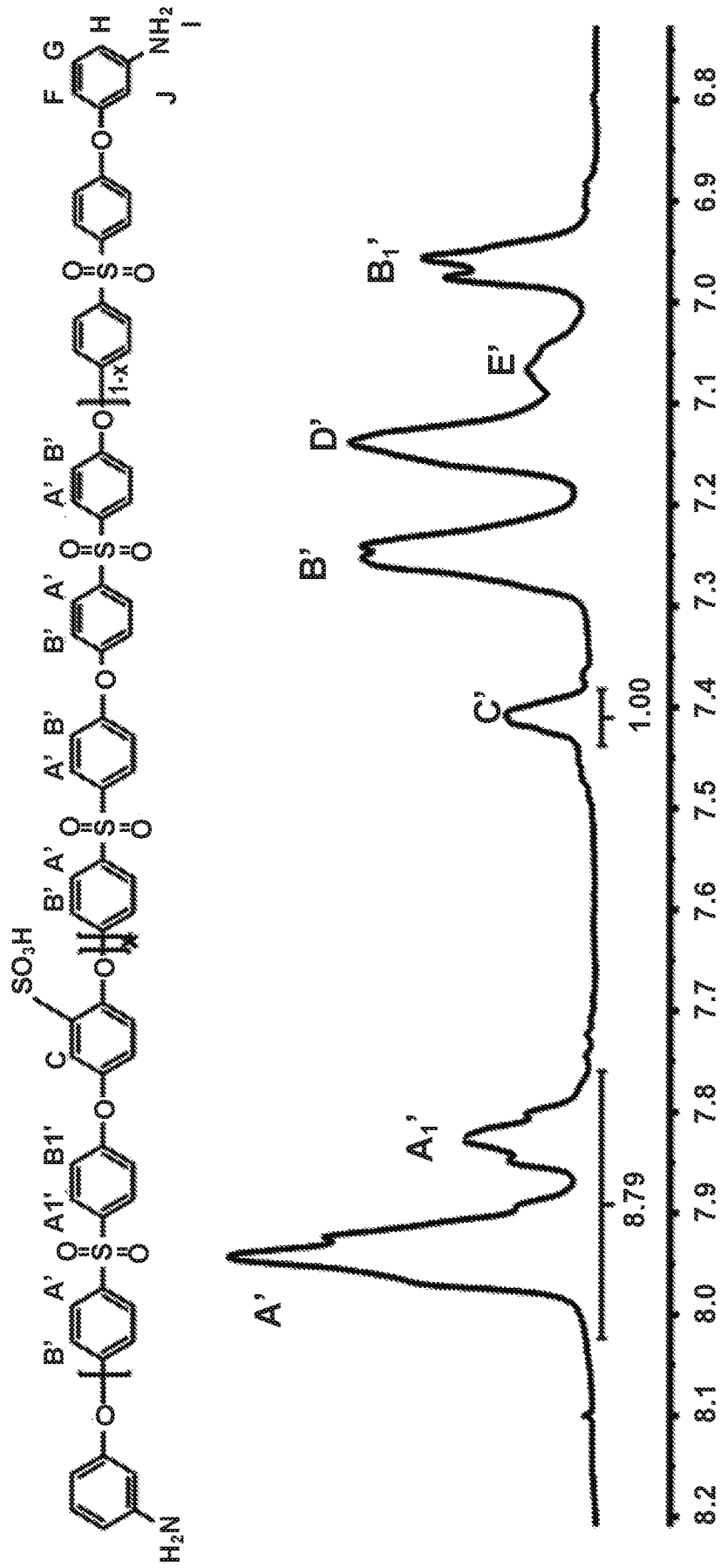


FIG. 18

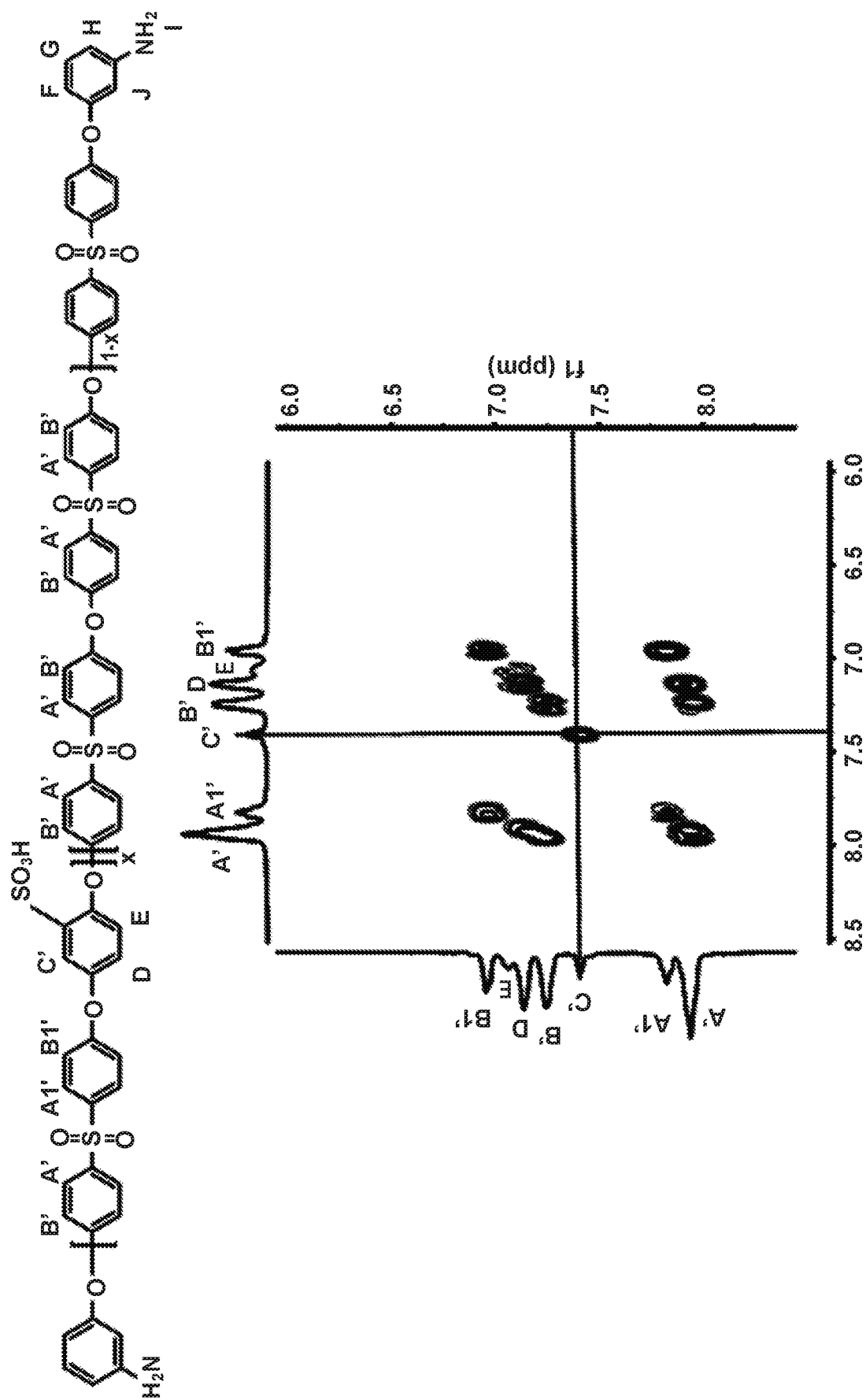


FIG. 19

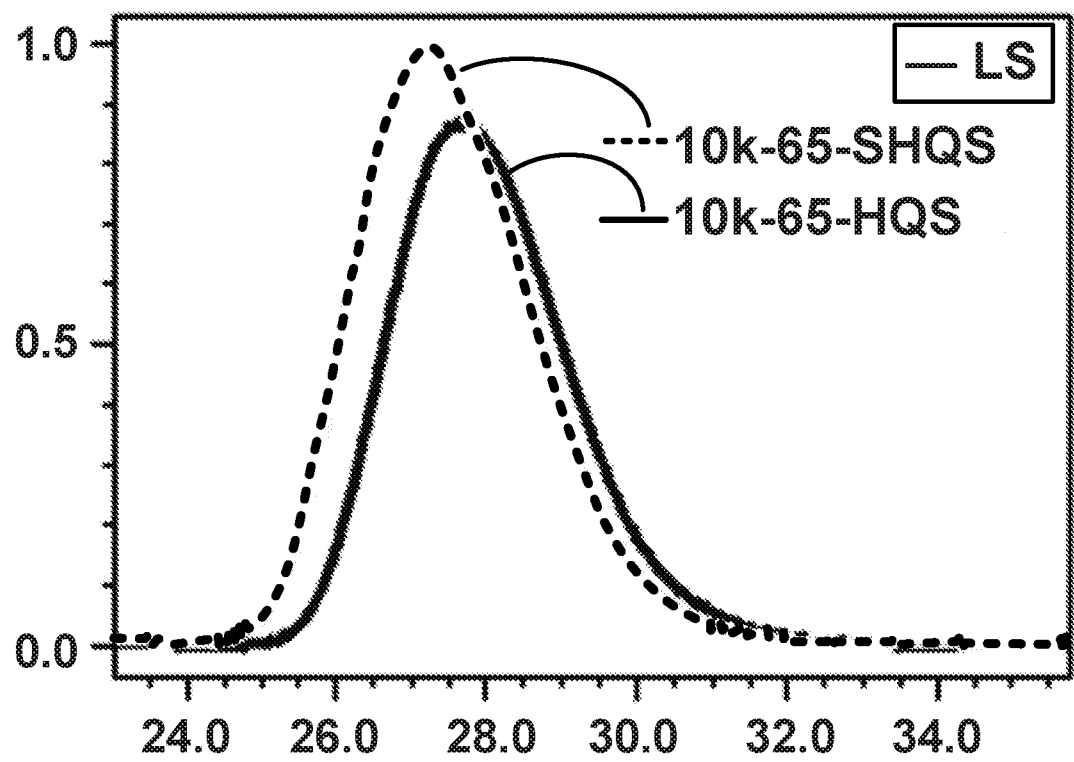


FIG. 20

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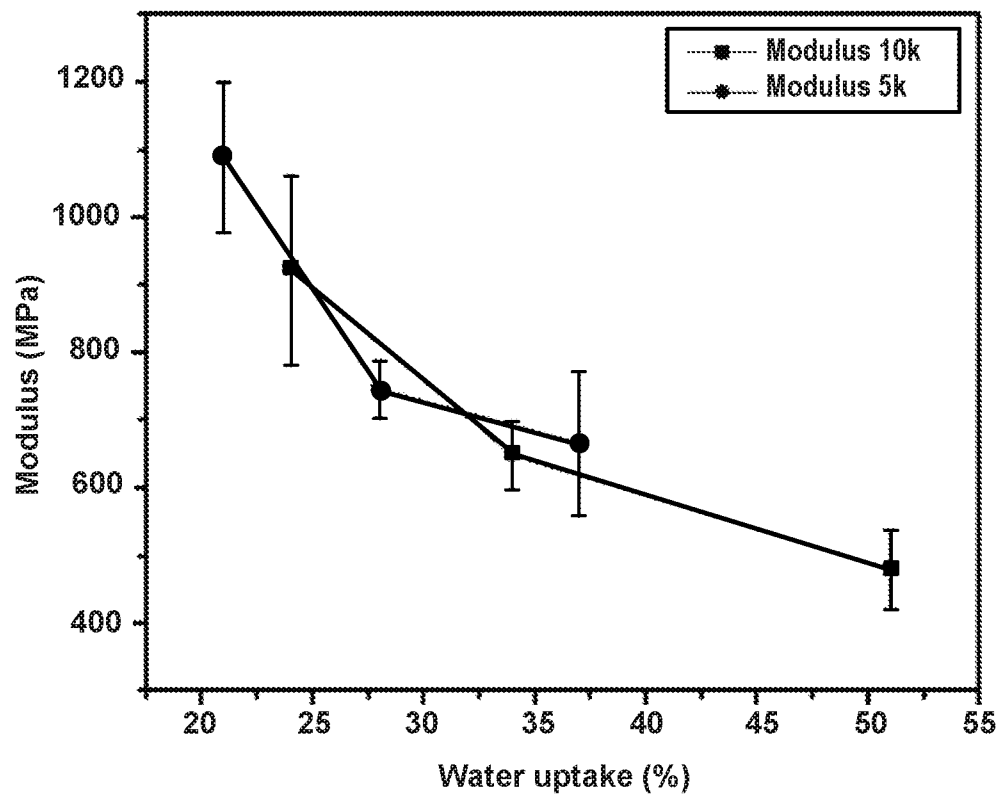


FIG. 21A

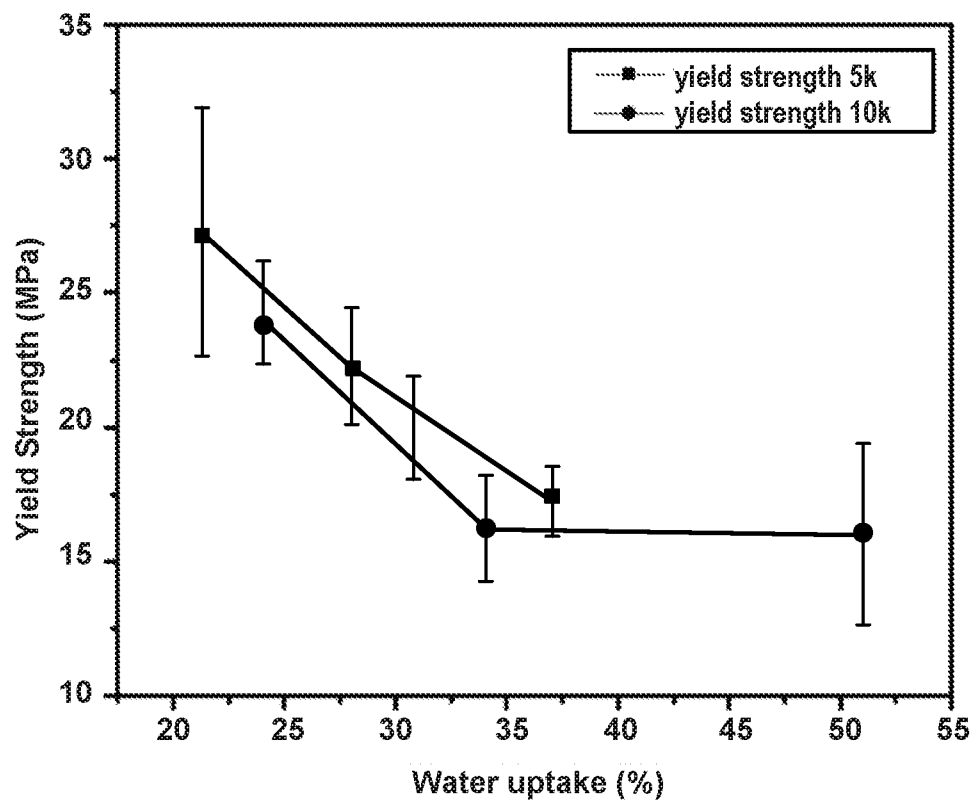
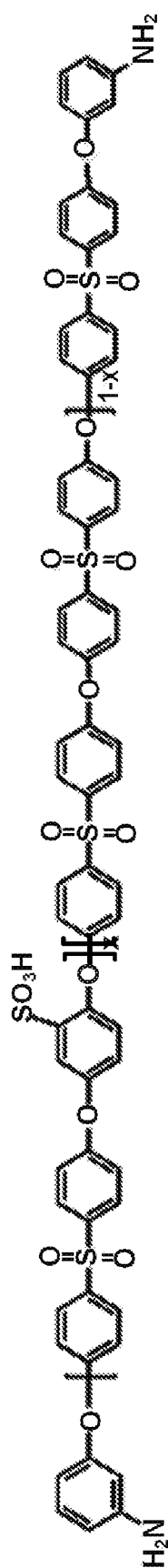
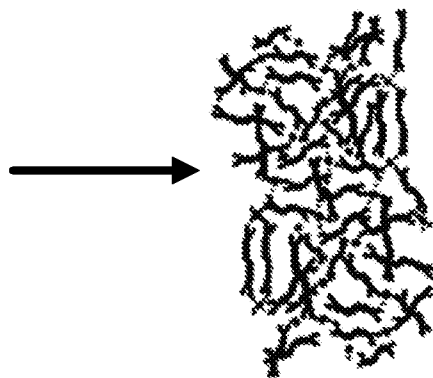


FIG. 21B



Post sulfonation of Amine terminated oligomer (SHQS)



Crosslinking of sulfonated amine terminated oligomer

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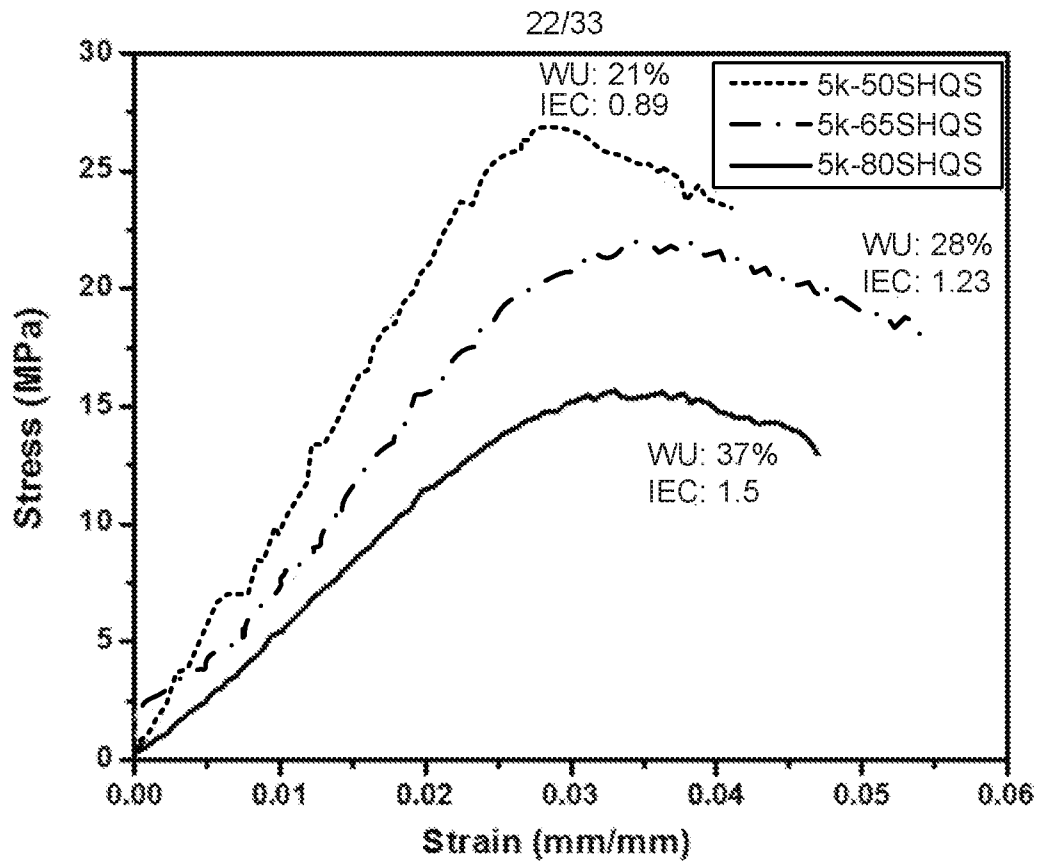


FIG. 22A

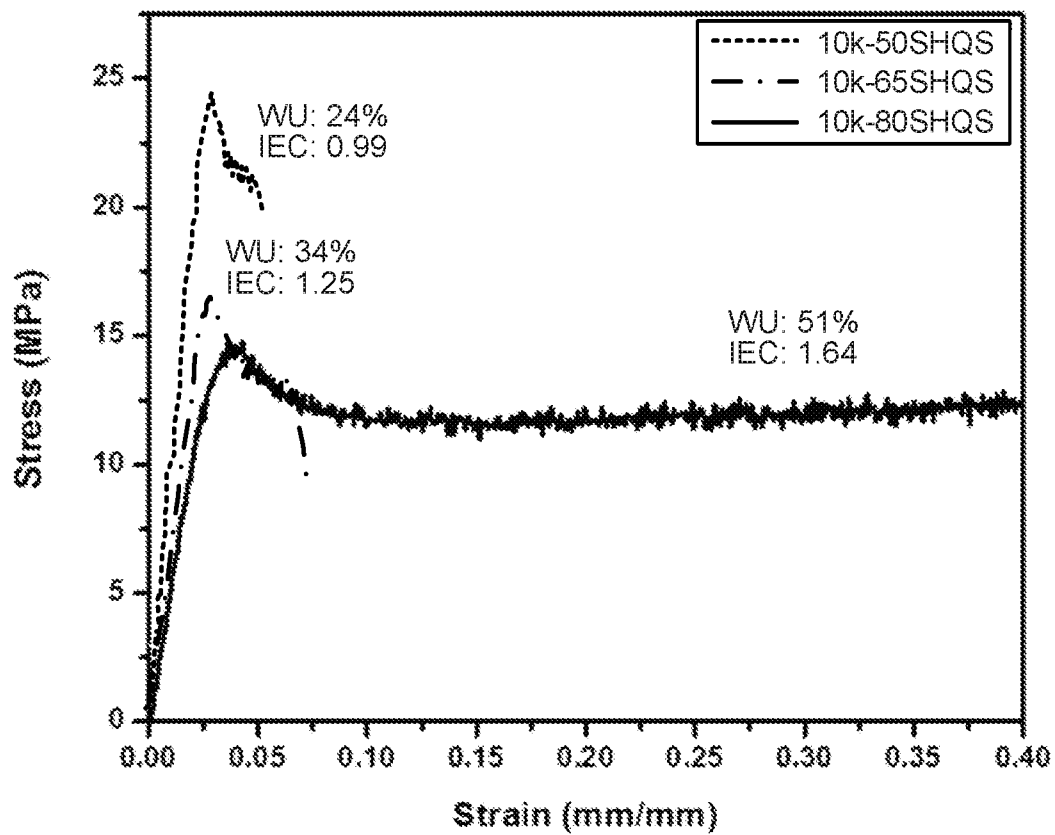


FIG. 22B

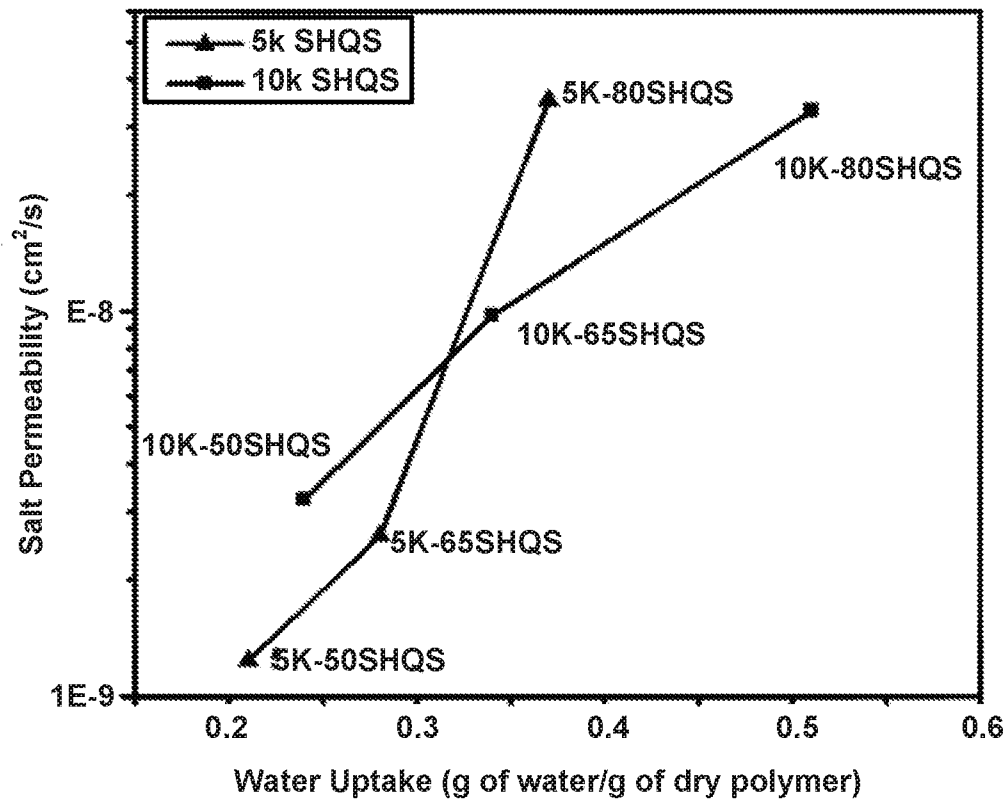


FIG. 23

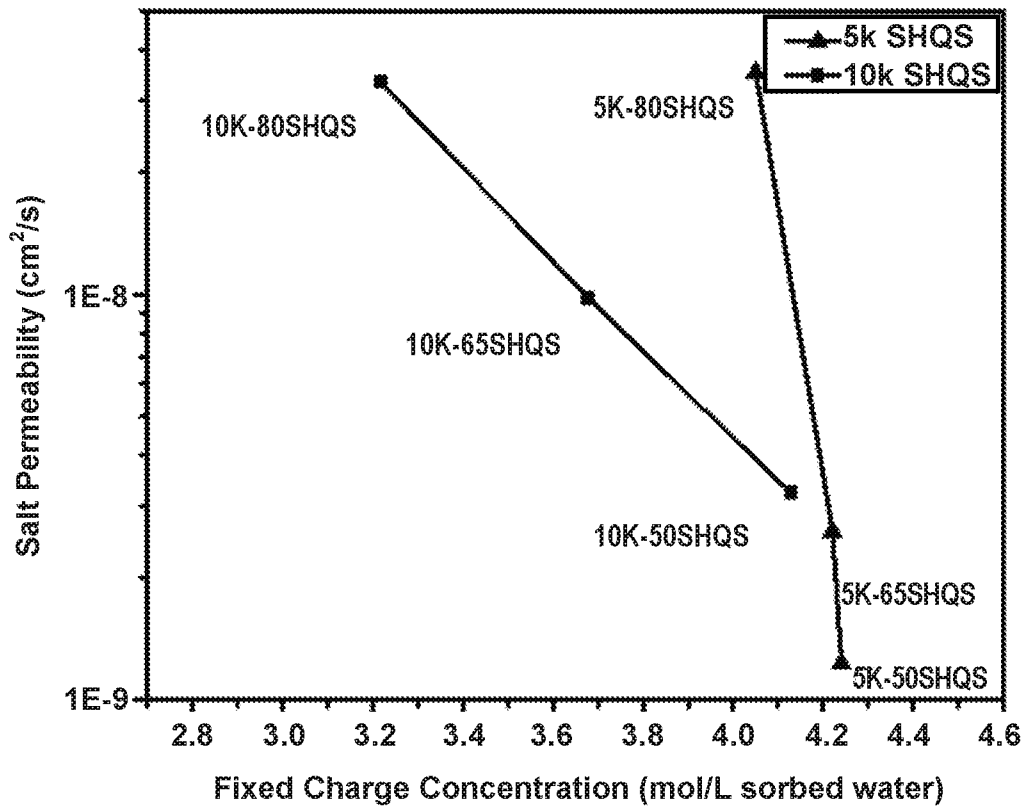


FIG. 24

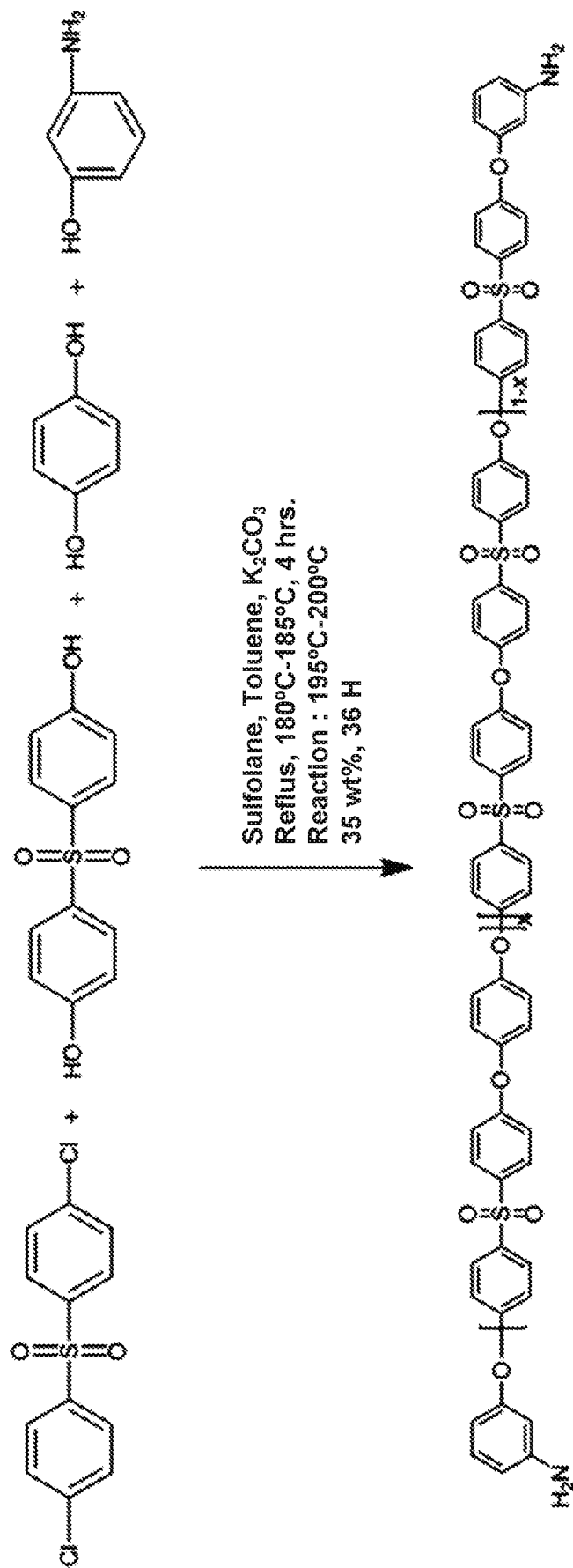


FIG. 25

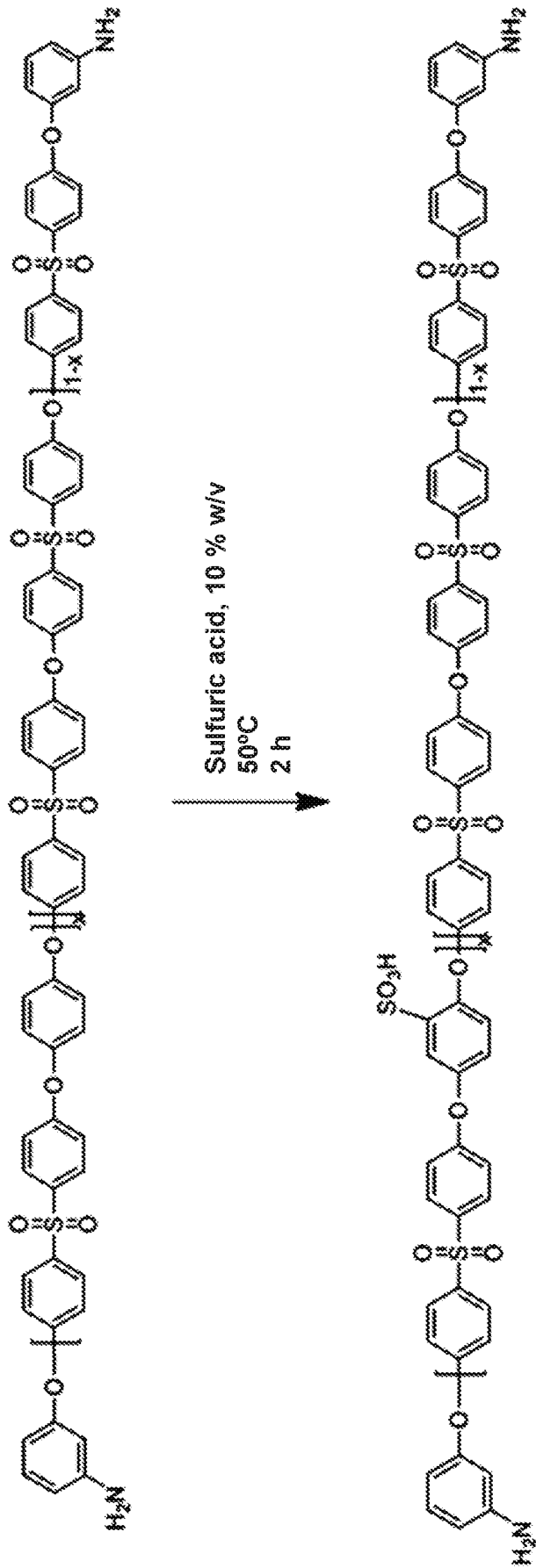


FIG. 26

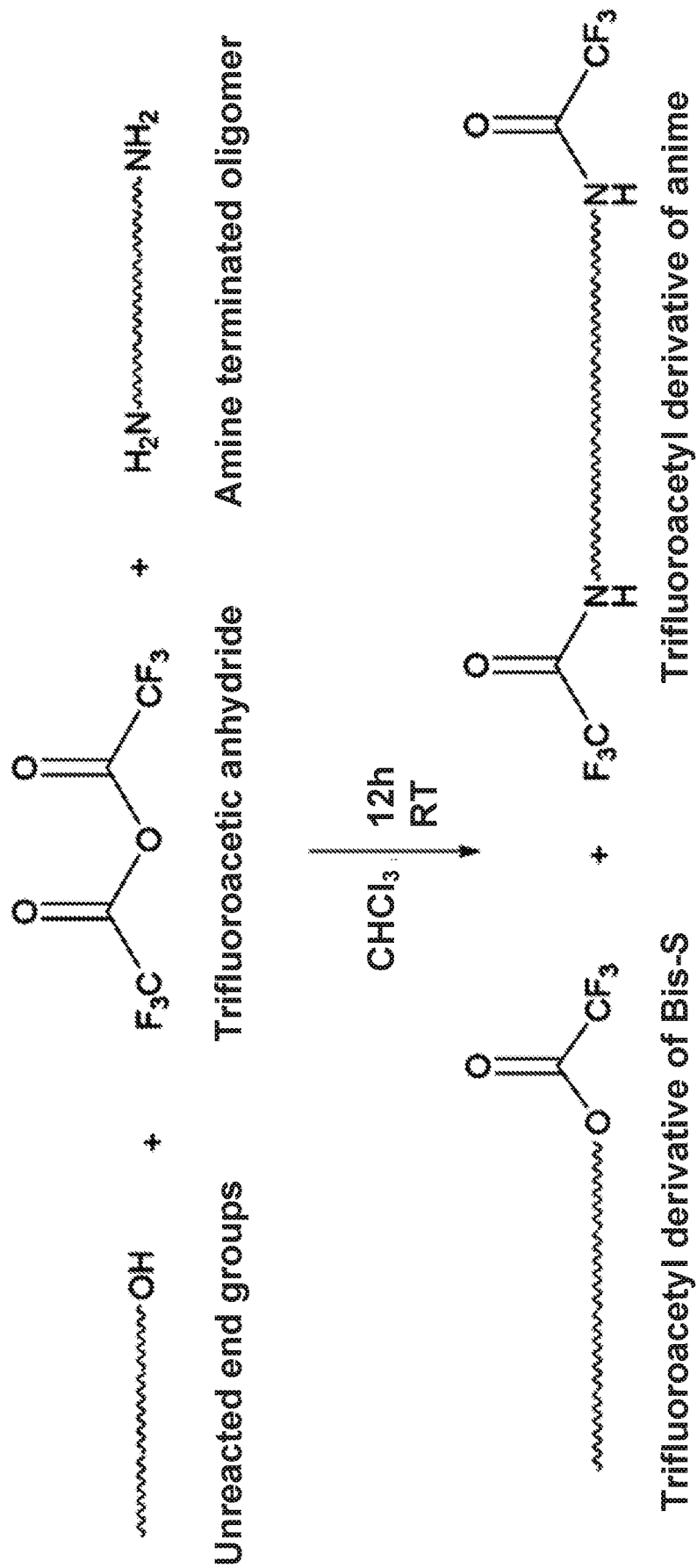


FIG. 27

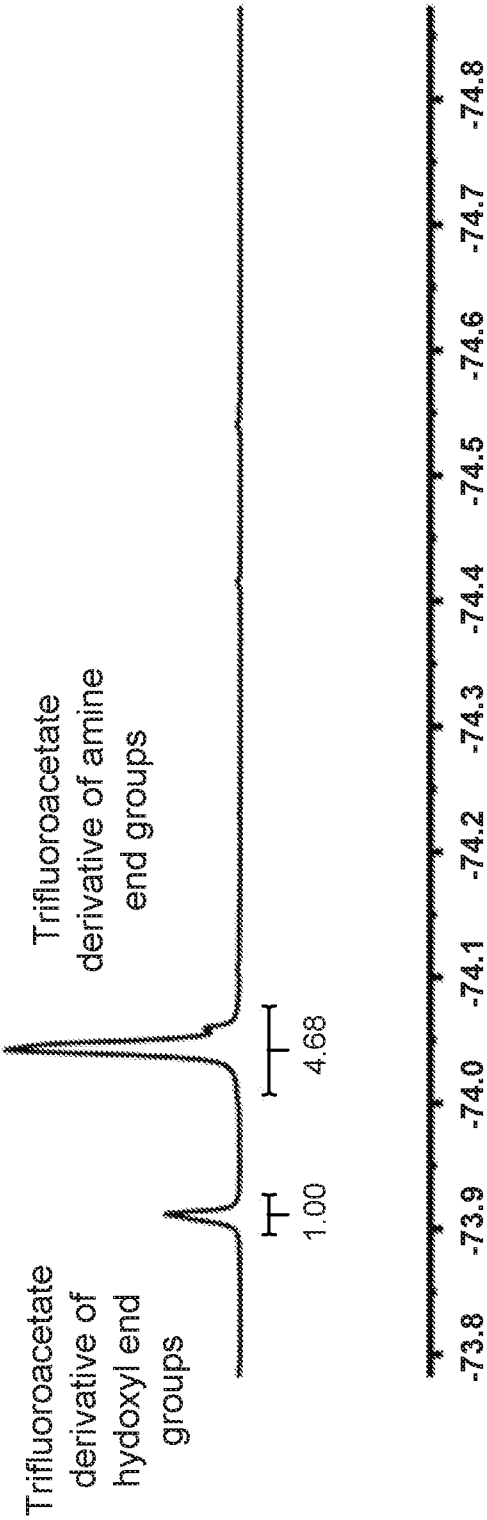


FIG. 28A

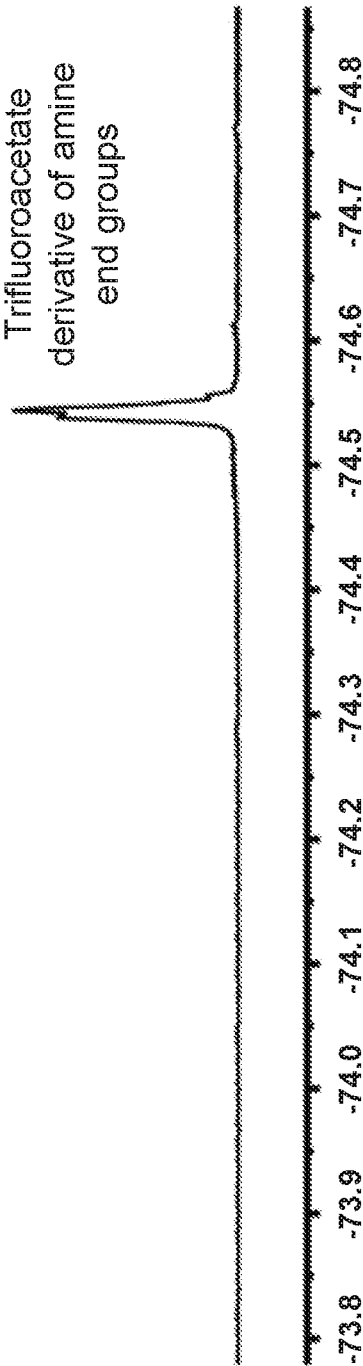


FIG. 28B

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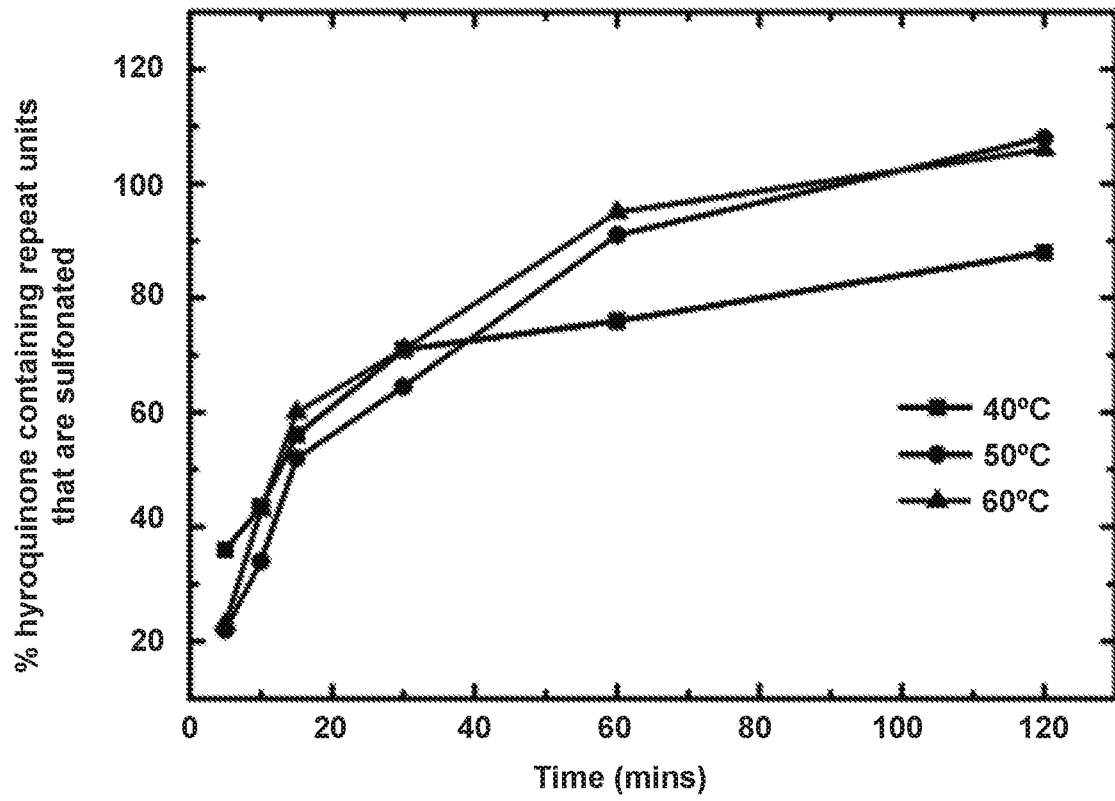


FIG. 29

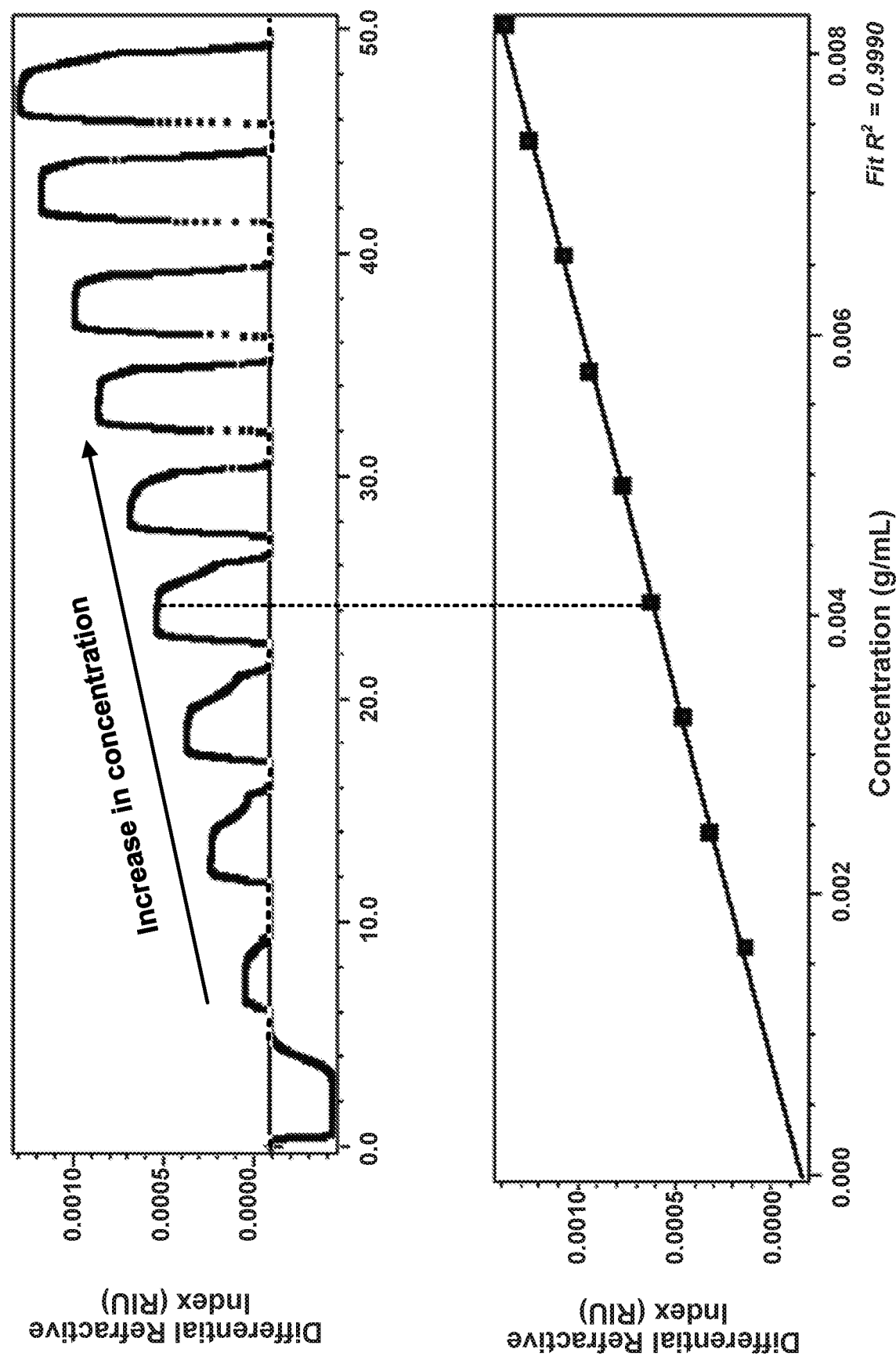


FIG. 30

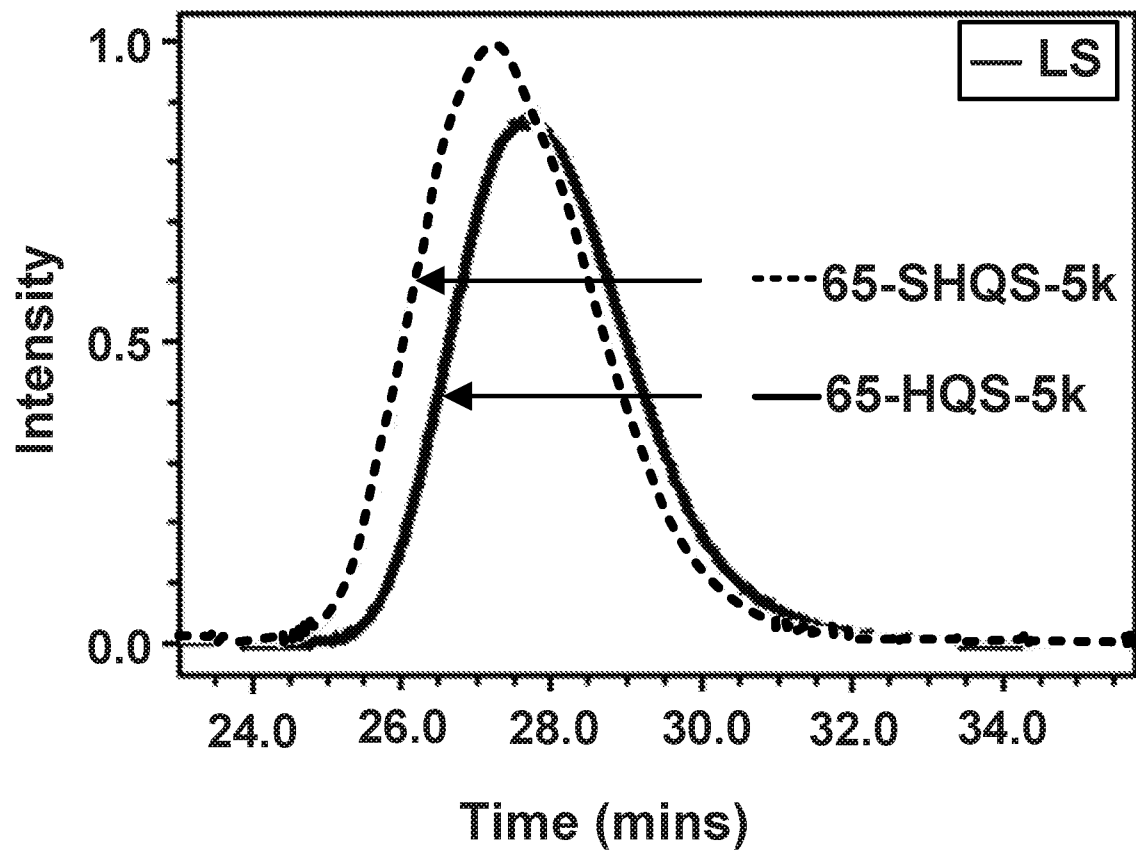


FIG. 31

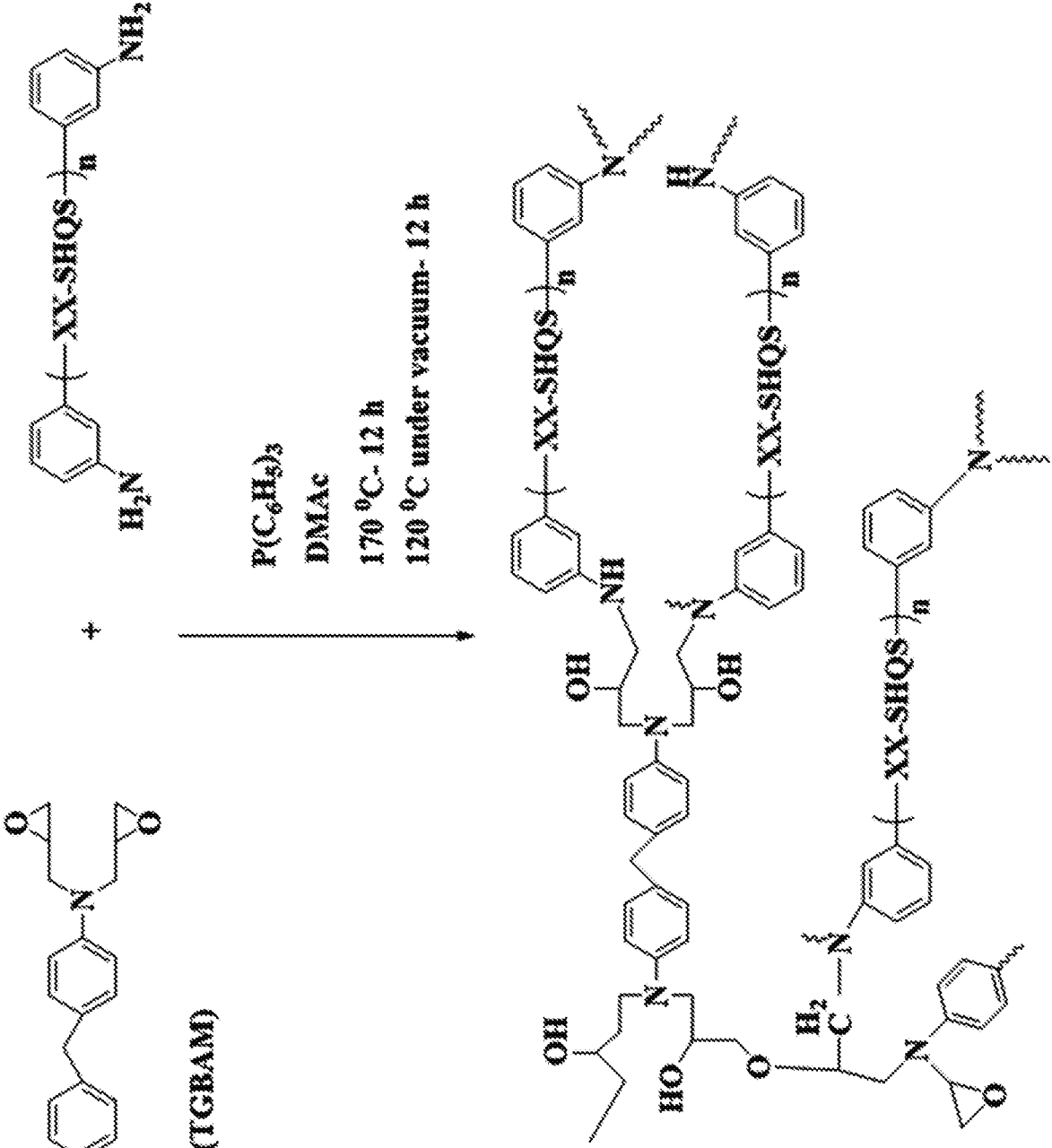


FIG. 32

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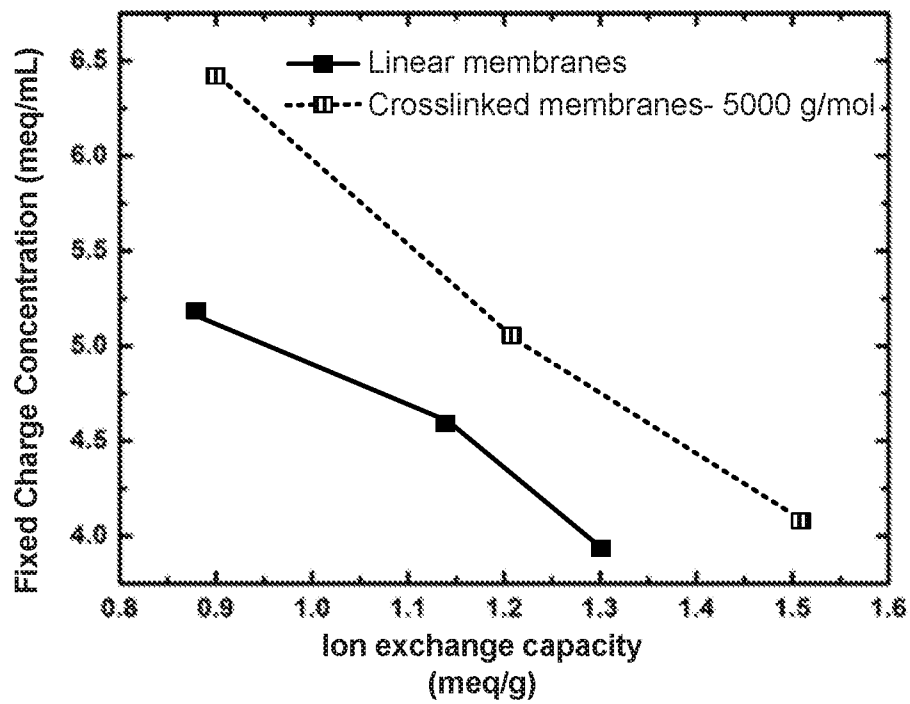


FIG. 33

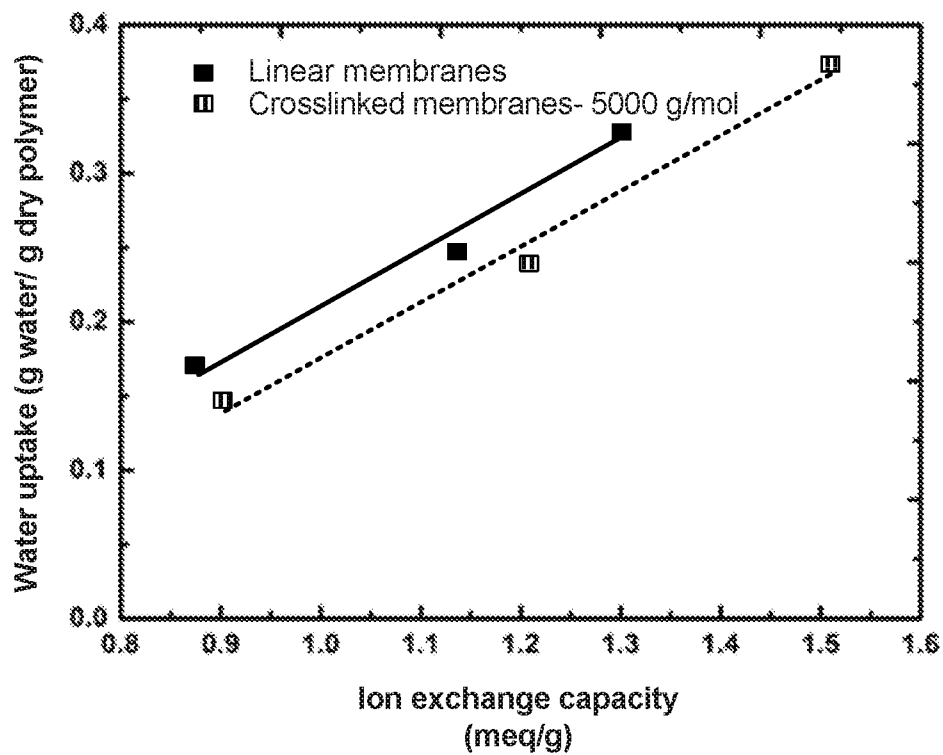


FIG. 34

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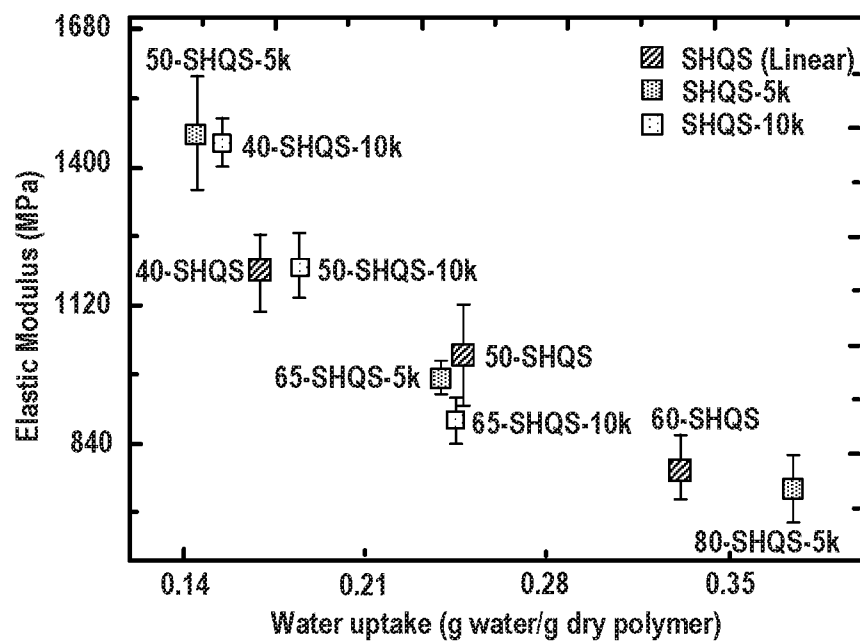
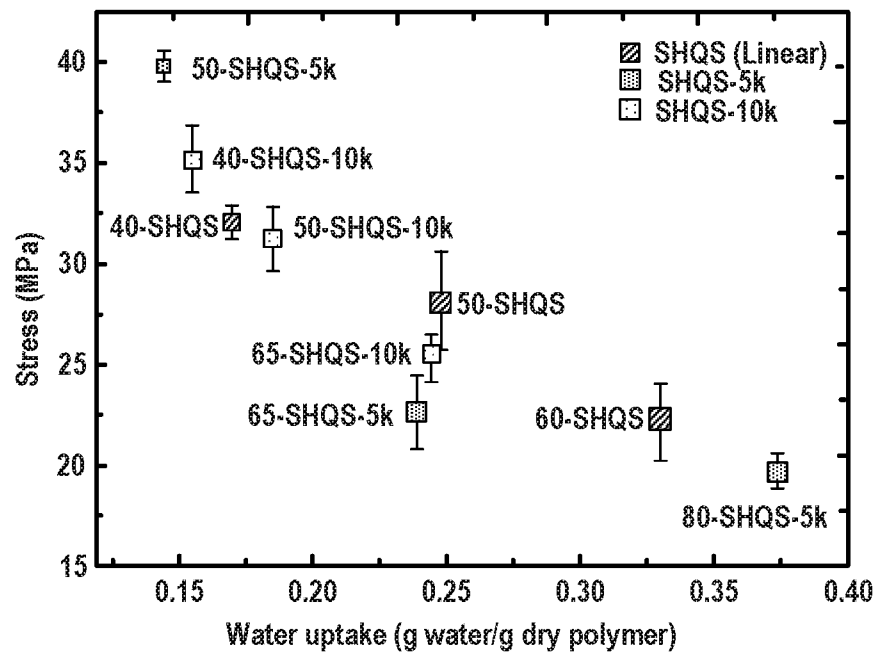


FIG. 35