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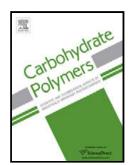
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## ACCEPTED MANUSCRIPT

### Proton exchange membrane based on chitosan and

#### solvent-free carbon nanotube fluids for fuel cells

#### applications

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#### **Graphical Abstract**

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#### Highlights

- Solvent-free carbon nanotube fluids were prepared via an ion exchange method.
- CNT fluids were incorporated into a CS matrix to fabricate composite membranes.
- Electrostatic interactions generated between the CNT fluids and the CS matrix.
- CS/CNT fluid composite membranes were simultaneously reinforced and toughened.

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