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Preparation of anion exchangeable titanate nanotubes and their effect on anion exchange membrane fuel cell

Vijayakumar Elumalai, Dharmalingam Sangeetha

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# ACCEPTED MANUSCRIPT

# Preparation of anion exchangeable titanate nanotubes and their effect on anion exchange membrane fuel cell

Vijayakumar Elumalai and Dharmalingam Sangeetha\*

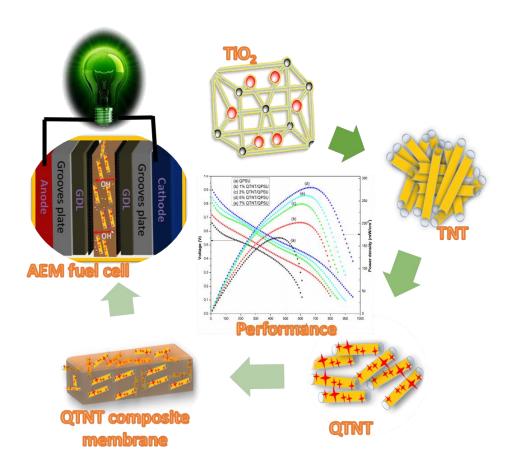
Department of Mechanical Engineering, Anna University,

Chennai 600025, India

\*Email: sangeetha@annauniv.edu

Phone: +91- 44- 2235 7763 Fax: +91- 44- 2357744

### **Graphical Abstract**



#### **Abstract**

In the present study, Titanate Nano Tubes (TNT) were synthesised by hydrothermal method and functionalised with quaternary ammonium group via chloromethylation followed by amination. Quaternary ammonium functionalised TNT (QTNT) were characterized by FTIR, solid state CP/MAS <sup>13</sup>C and CP/MAS <sup>29</sup>Si for their successful chemical modification and their nano tube morphology was confirmed by XRD, SEM and TEM analyses. The

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