

Supporting Information

**Novel composite membranes of triazole modified graphene oxide  
and polybenzimidazole for high temperature polymer electrolyte  
membrane fuel cell applications**

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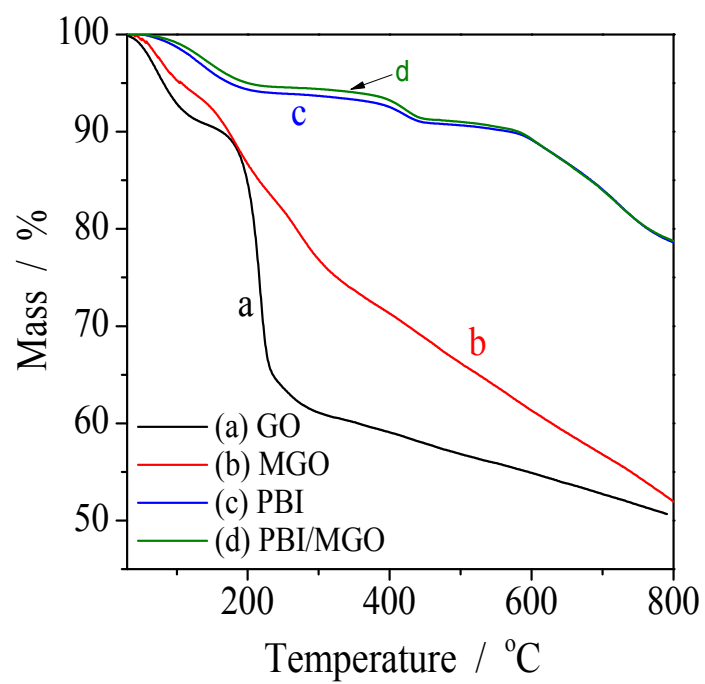


Fig. S1 TGA curves of GO and MGO in air, PBI and PBI/MGO membranes in  $N_2$  at a heating rate of  $10\text{ }^\circ\text{C min}^{-1}$

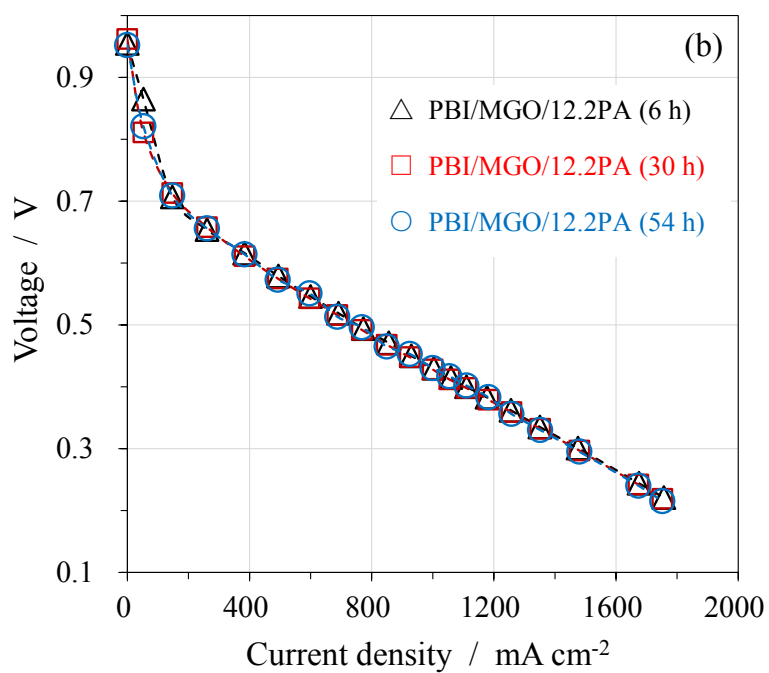
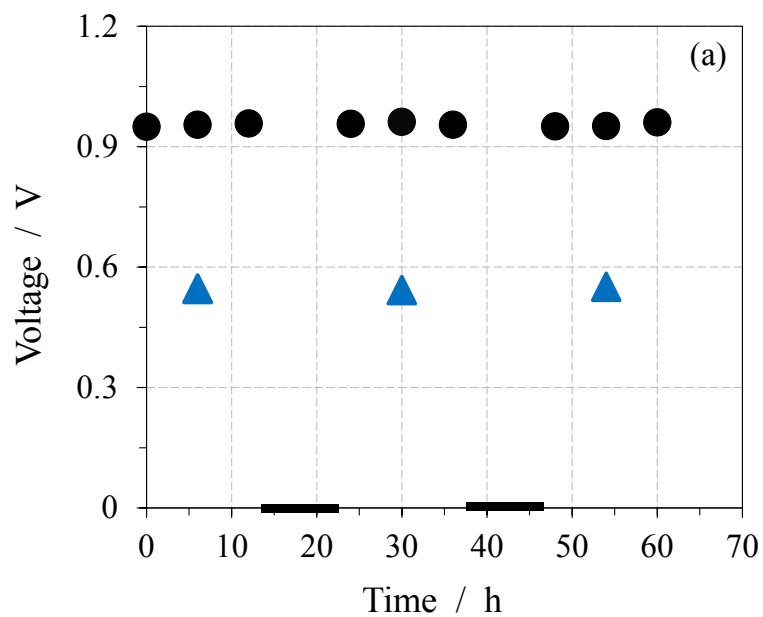


Fig. S2 Performance of the fuel cell feeding with anhydrous H<sub>2</sub> and O<sub>2</sub> under atmospheric pressure at 160 °C with a Pt loading of 0.6 mg cm<sup>-2</sup>. (a) OCVs (●) and cell voltages at a current load of 600 mA cm<sup>-2</sup> (▲) of the MEA based on the PBI/MGO/12.2PA membrane as a function of time; (b) Polarization curves of the MEA at operating time points of 6h, 30h, 54h, respectively.