## **Supporting Information**

## Alkaline Stability of Benzyl Trimethyl Ammonium Functionalized Polyaromatics: A Computational and Experimental Study

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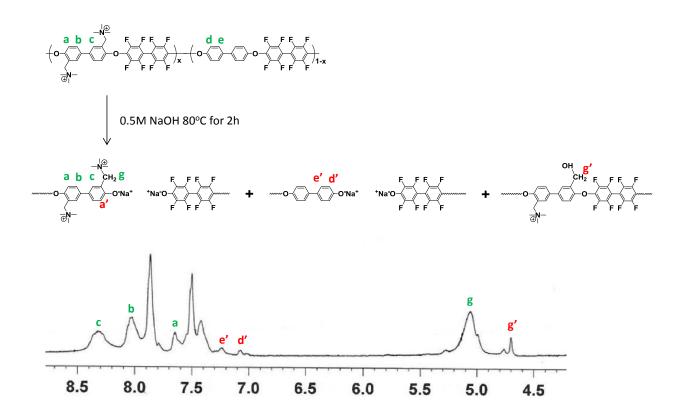
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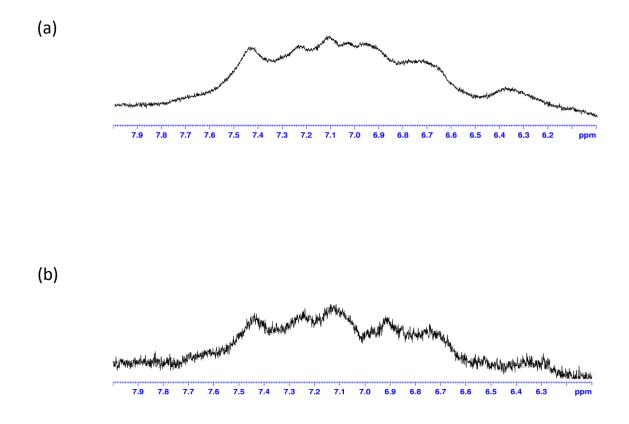
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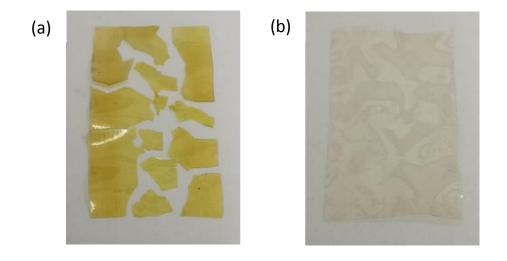
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**Figure S1.** <sup>1</sup>H NMR spectra of F-PAE after stability test in 0.5 M NaOH at 80°C for 2 h. The degradation % of cationic functional group was obtained by the peak integration of g'/(g+g')



**Figure S2.** <sup>1</sup>H NMR spectra of ATM-PP (a) before and (b) after stability test in 0.5 M NaOH at 80°C for 2 h.



**Figure S3.** Photographs of (a) F-PAE and (b) ATM-PP after stability test in 0.5 M NaOH at 80°C for 2 h.