APPENDIX

APPENDIX A

The method for calculation

1. Ion exchange capacity (IEC)

The weight of dry SPPSU membrane is 0.1004 g. The 4.55 ml of 0.01 M NaOH was used to titration 20 ml of 1 M NaCl solution after immersion the membrane.

mmol of NaOH was used titration 20 ml NaCl	= 0.01*4.55*1000/1000
	= 0.0455 mmol
mmol of NaOH was used titration 60 ml NaCl	= 0.0455*60/20
	= 0.1365 mmol
IEC of SPPSU	= 0.1365/0.1004
	= 1.36 meq/g

2. Water uptake

The weight of dry SPPSU membrane was obtained 0.0839 g and after immersion in DI water for 24 h was obtained 0.0996 g.

From the eq.1

Water uptake (%)	=	(0.0996-0.0839)*100/0.0839
	=	18.713 %