

ABSTRACT**High Ion Conductive Polymers**

A method of producing a polymer, the method comprising the step of copolymerisation of a mixture comprising: about 15% to 50% by weight of water; about 10% to 50% by weight of at least one copolymerisable surfactant; and about 5% to 40% by weight of at least one copolymerisable monomer; whereby the resultant polymer has aqueous domains having sizes smaller than 100nm.

Also disclosed is a polymer comprising domains containing at least one polar solvent, the domains having sizes smaller than 100nm and the density of the domains being at least about $3 \times 10^3 / \mu\text{m}^3$.

[Figure 3]