Electrically Conductive Gels Prepared from Syndiotactic Polystyrene and an Ionic Liquid

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Supporting data



Figure S1.

SEM pictures of (A) dried SPS/Py gel (magnification, 20,000 fold) and (B) dried SPS/Py/[C₄py]Br gel after washing with methanol (magnification, 10,000 fold).



Figure S2.

(A) Image of how to mount $[C_4py]Br$ or $[C_4py]Br/Py$ on an SPS gel. (B) Thermogravimetry traces of SPS/Py/ $[C_4py]Br$ gels at a scan rate of 10 °C/min: 1. SPS pellet, 2. ILBr, 3~5. SPS gels after the mount of ILBr or Py solutions of ILBr for 1 week on SPS/Py/ $[C_4py]Br$ gels where SPS was 5 wt% and the weight ratio between Py and ILBr was 9:1. The mounting solution was; 3. ILBr only, 4. ILBr:Py=5:5, 5. ILBr:Py=2:8 (weight ratio).



Figure S3.

Frequency dependence of the loss elastic modulus, **G**", of SPS/Py/[C₄py]Br gel [the fractions of $[C_4py]Br$ were 35 (black circle) and 41 wt% (red square)] and SPS/Py gels (blue triangle) at 25 °C: the SPS concentrations of all the gels were 5 wt%.