Supporting Information

Low-dielectric Polyimide Nanofoams Derived from 4,4'-(Hexafluoroisopropylidene)diphthalic Anhydride and 2,2'-Bis(trifluoromethyl)benzidine

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Table S1. Temperatures of 5% and 10% weight loss of PI nanofoams after removal of the PEG content.

PEG Content (wt%)	$T_{5\%}$ (°C)	$T_{10\%}$ (°C)
0	528.2	549.0
3	520.2	541.2
5	523.9	546.7
10	523.6	545.1
12	523.7	544.3
15	524.3	546.8
20	522.7	543,8

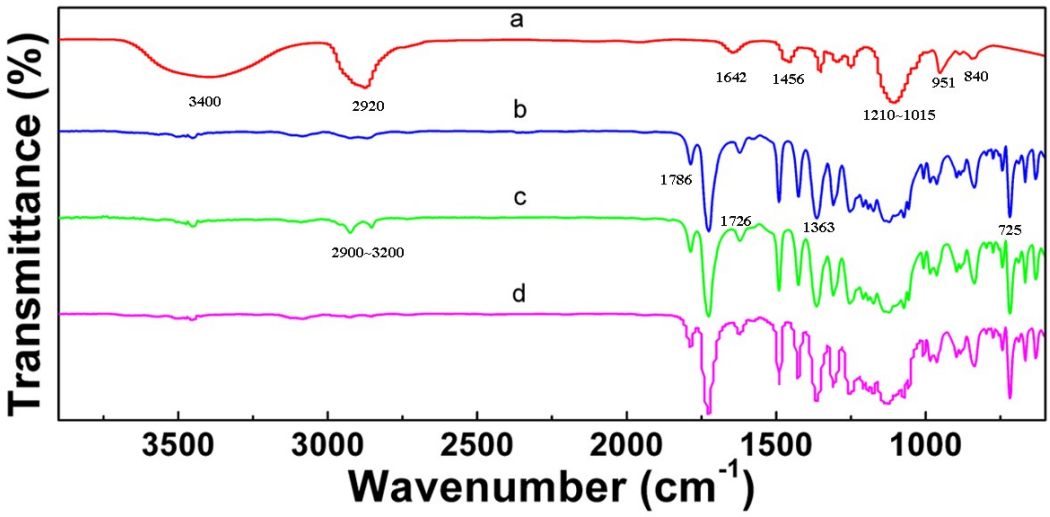

Figure S1. FT-IR spectra of (a) PEG-600, (b) pure PI film, (c) PI/PEG composite film, and (d) PI nanofoams.

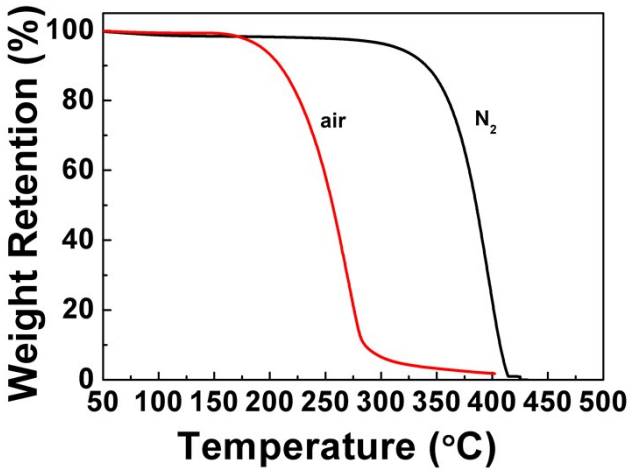

Figure S2. TGA curves of PEG-600 in air and nitrogen atmosphere.

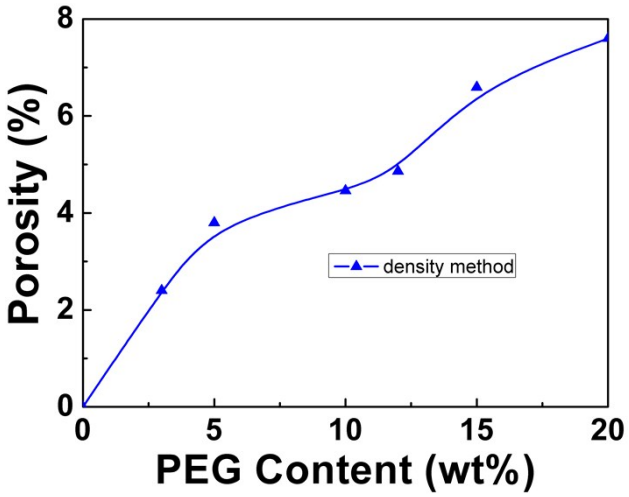

Figure S3. Porosity of PI nanofoams in the function of PEG content.

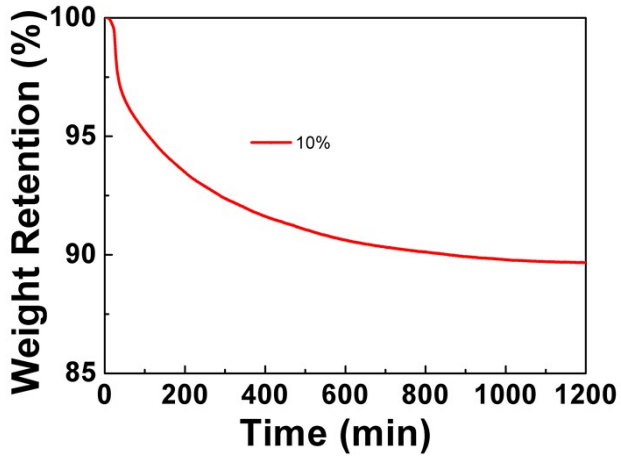

Figure S4. Isothermal TGA anlysis of PI/PEG composite film (10 wt%) in air at 260 ^{o}C for 1200 min.

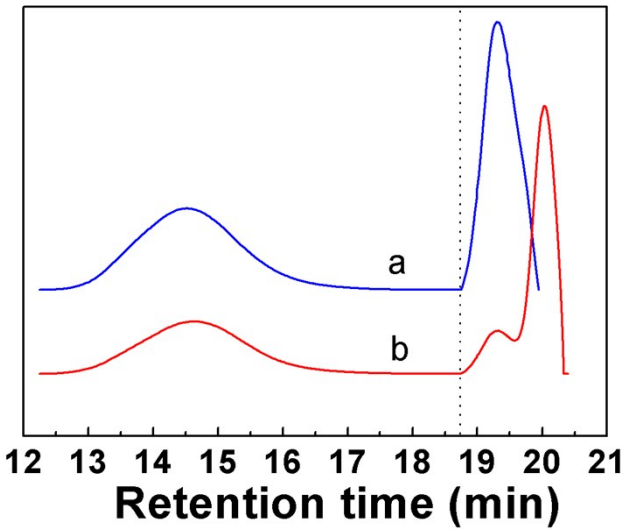

Figure S5. GPC curves of (a) PI/PEG composite film before thermal decomposition process, (b) PI nanofoam with PEG decomposed partly (175 °C for 1 h, 225 °C for 0.5 h at a heating rate of 1 °C/min in air).