Supporting Information

Facile preparation of thermally responsive microspheres with environmentally friendly and low-cost by suspension-emulsion polymerization

Jinggang Yang, Dongliang Guo, Liheng Yang, Rong Sun, Peng Xiao*

State Grid Jiangsu Electric Power Co., Ltd. Research Institute, Nanjing 211103, Jiangsu, P. R. China

*Corresponding author: Dr. Peng Xiao; E-mail: vodoco@foxmail.com



Figure S1 (a-f) Volume changes at different temperatures from TRM-1 to TRM-5.



Figure S2. (a-h) Volume changes at different temperatures from TRM-6 to TRM-9.



Figure S3. DSC curves of TRM-6 to TRM-9 warming process.

Table S1. TRM-6 to T	RM-9 enthalpies of ph	ase transitions an	d their phase	transition
	temperatu	ires.		

Samples	T _{E0} (°C)	T _{Ep} (°C)	T _{Ee} (°C)	$\Delta H_{\rm E}({\rm J/g})$
TRM-6	91.3	93.5	100.6	21.149
TRM-7	110.2	118.7	128.6	37.538
TRM-8	136.1	144.2	155.2	37.028
TRM-9	147.6	151.8	162.2	26.996



Figure S4. The morphology and size evolution of temperature-responsive microspheres prepared with different times.



Figure S5. TEM image of the temperature-responsive microspheres with core-shell structure.



Figure S6. The possible expansion mechanism of the temperature responsive microspheres.