Supporting information
An injectable ionic hydrogel inducing high temperature hyperthermia for microwave tumor ablation

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Computer simulation

The Specific heat of saline solution and s-HY respectively at 25℃ was measured by the Thermal Analysis instrument and the calculation equation was as follow:

$$\frac{Cp}{Cp'} = \frac{(y - y_{baseline})m'}{(y' - y_{baseline})m}$$

(1)

Where Cp was the sample's specific heat, Cp' was the sapphire's specific heat, y and y' were the heat flow value of sample and the sapphire respectively, and m was the weight of test samples. The specific heat of sapphire at 25℃ was 0.7788 J/(g · ℃). The weight of sapphire, s-HY and saline solution were 22.56mg, 23.15mg and 24.78mg respectively.

Therefore, the value was calculated by combining Figure S1 and equation (1).

$Cp_{(s-HY)}$=4.11617 J/(g · ℃) and $Cp_{(saline\ solution)}$=4.11565 J/(g · ℃).
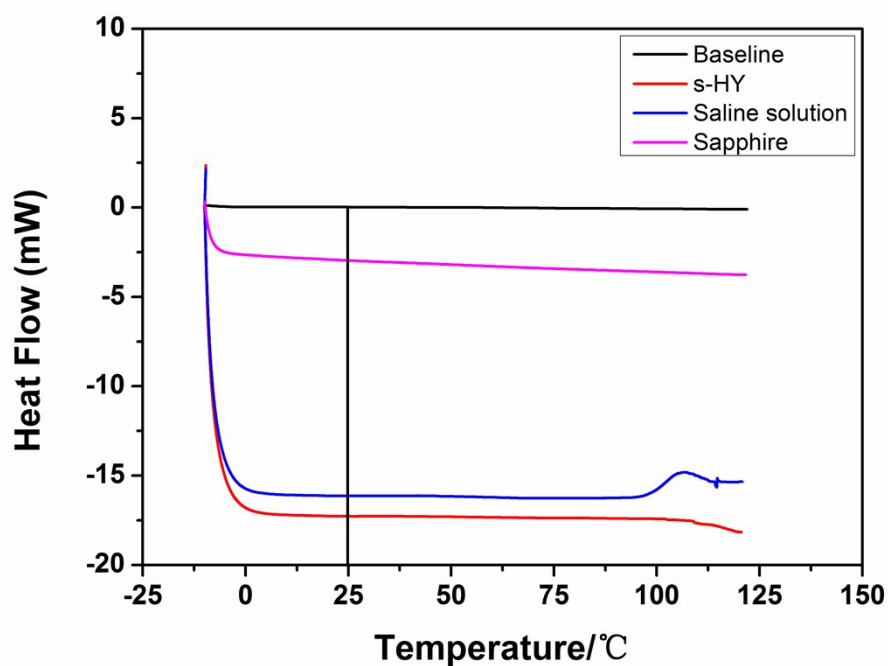

Figure S1. The Thermal Analysis profile of the s-HY and saline solution.