Electronic Supplementary Material (ESI) for Journal of Materials Chemistry

Supporting Information

Polyethylene glycol-based Biocompatable and Highly Stable Superparamagnetic Iron Oxide Nanoclusters for Magnetic Resonance Imaging

Syu-Ming Lai,[a] Jong-Kai Hsiao,[b] Hsiu-Ping Yu,[a] Chen-Wen Lu,[b] Chih-Chia Huang,[c] Ming-Jium Shieh,[d] and Ping-Shan Lai[a]*

[a]Department of Chemistry, National Chung Hsing University, Taichung 402, Taiwan

[b]Department of Medical Imaging, Buddhist Tzu Chi General Hospital, Taipei Branch, New Taipei City 231, Taiwan

[c]Biophotonics Interdisciplinary Research Center and Institute of Biophotonics, National Yang-Ming University, Taipei 112, Taiwan

[d]Institute of Biomedical Engineering, National Taiwan University, Taipei 100, Taiwan

*Corresponding author: Ping-Shan Lai

Department of Chemistry, National Chung Hsing University

No. 250, Kuo-Kuang Road, Taichung 402, Taiwan.

Tel: +886-4-22840411 ext. 428. Fax: +886-4-22862547.

E-mail address: pslai@email.nchu.edu.tw (P.-S. Lai)

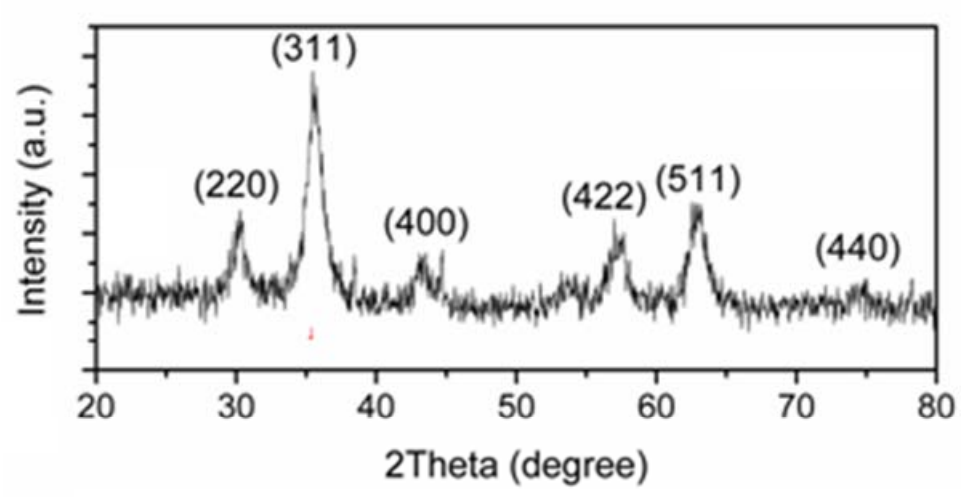

Figure S1: XRD measurement of as-prepared iron oxide nanoparticles.

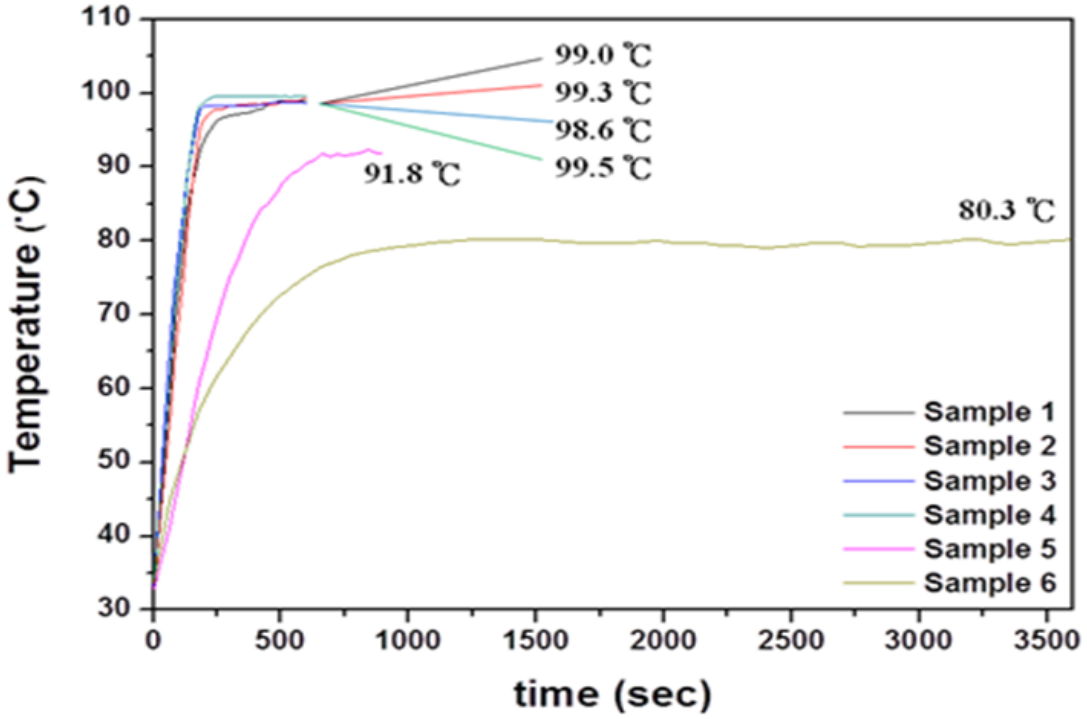

Fig. S2: Temperature monitoring of each reaction for the preparation of sample 1 to 6 by thermocouple.

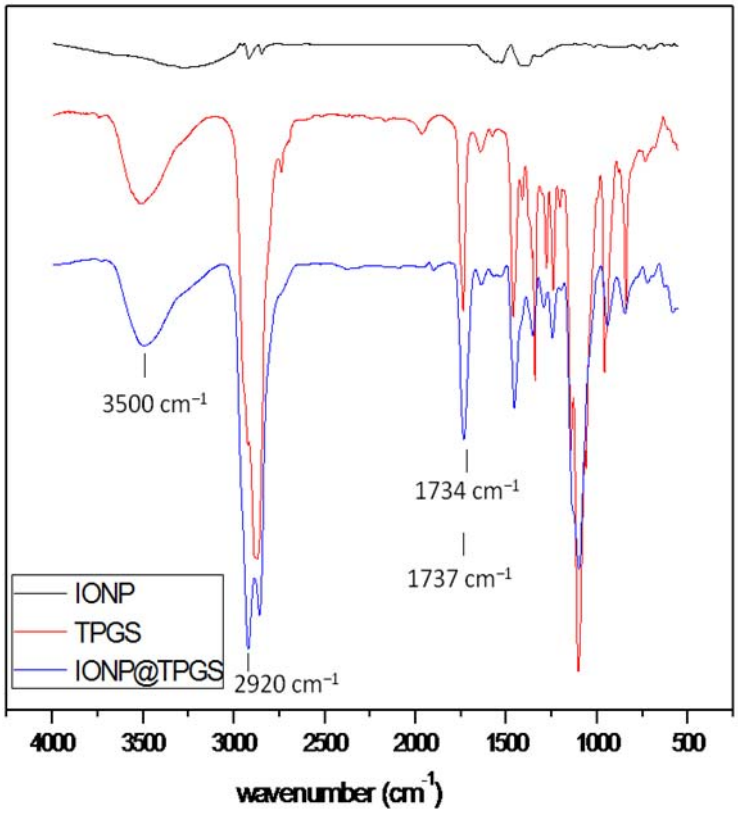

Figure S3: FT-IR spectra of IONP, TPGS and IONP@TPGS clusters.

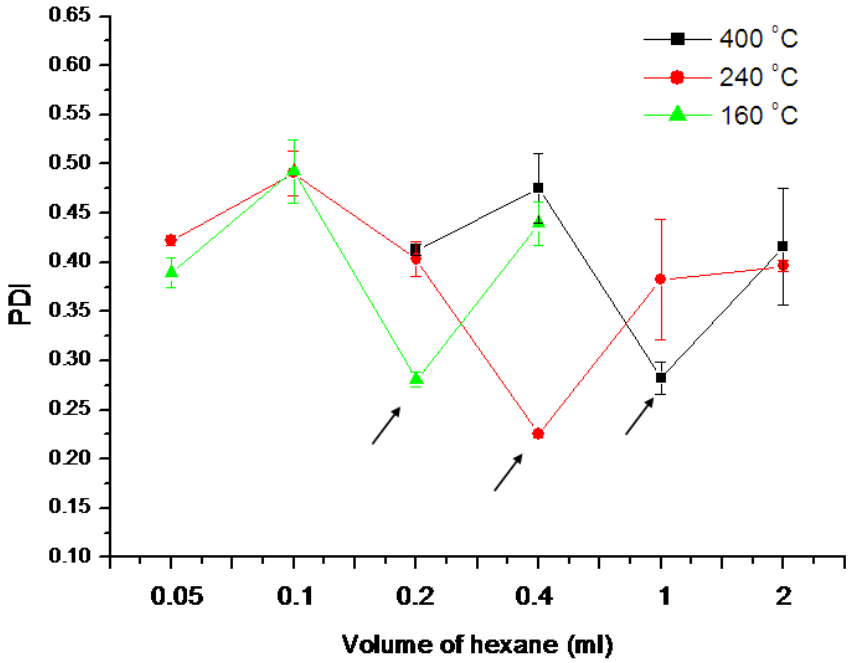

Figure S4: The relationship between PDI and volume of hexane fpr IONP@TPGS clusters fomation at different hotplate temperature.

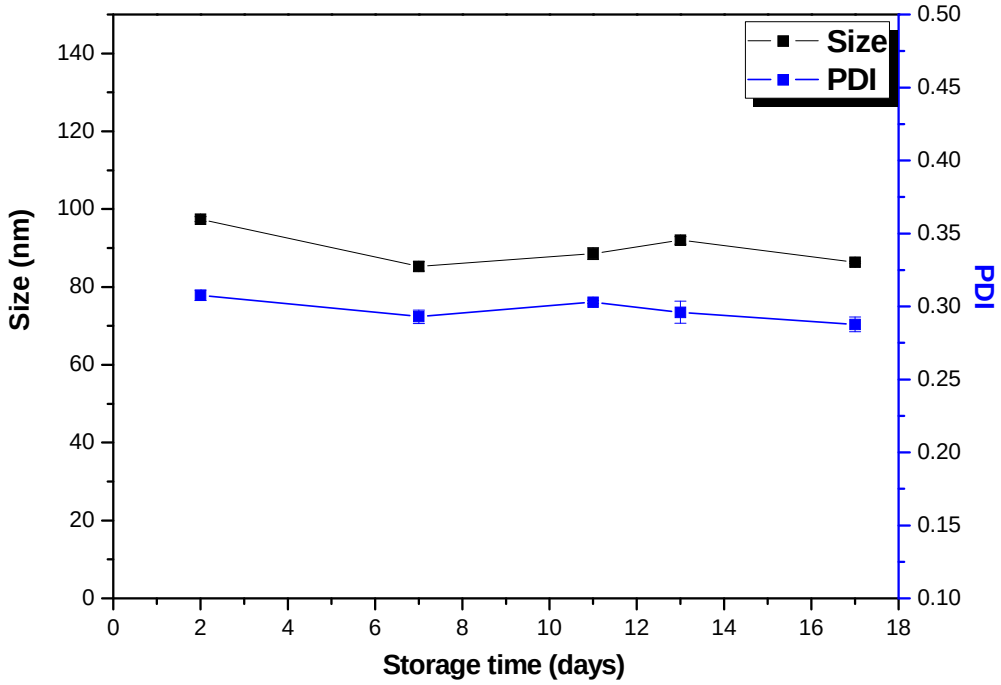

Figure S5: Size monitoring of IONP@TPGS clusters (sample 6) by DLS at room temperature.