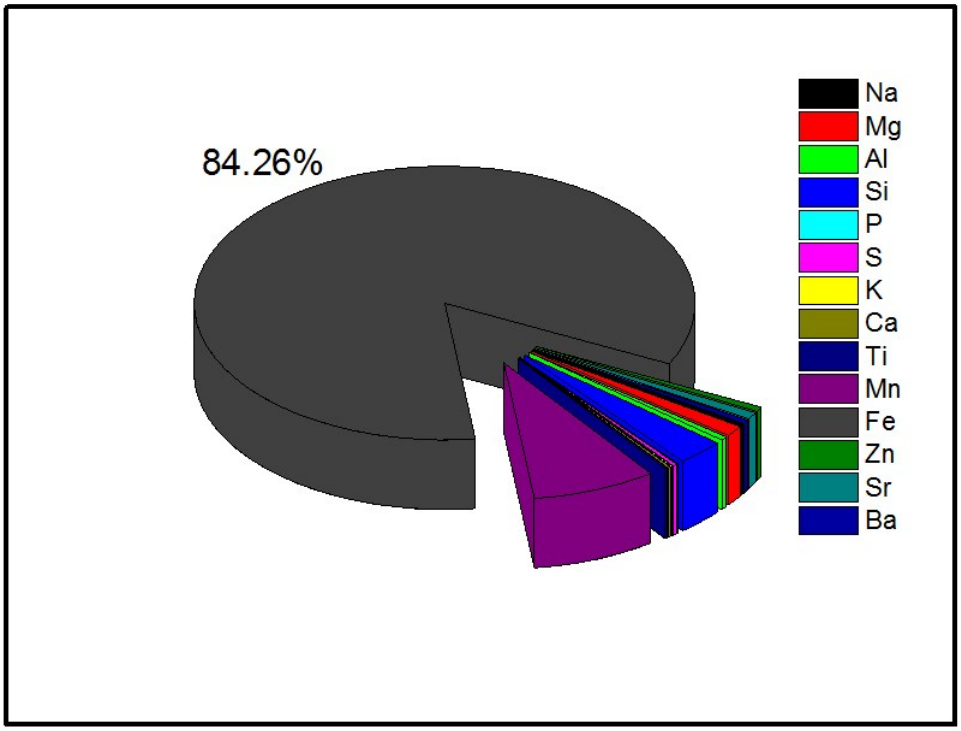
SUPPLEMENTARY DATA:

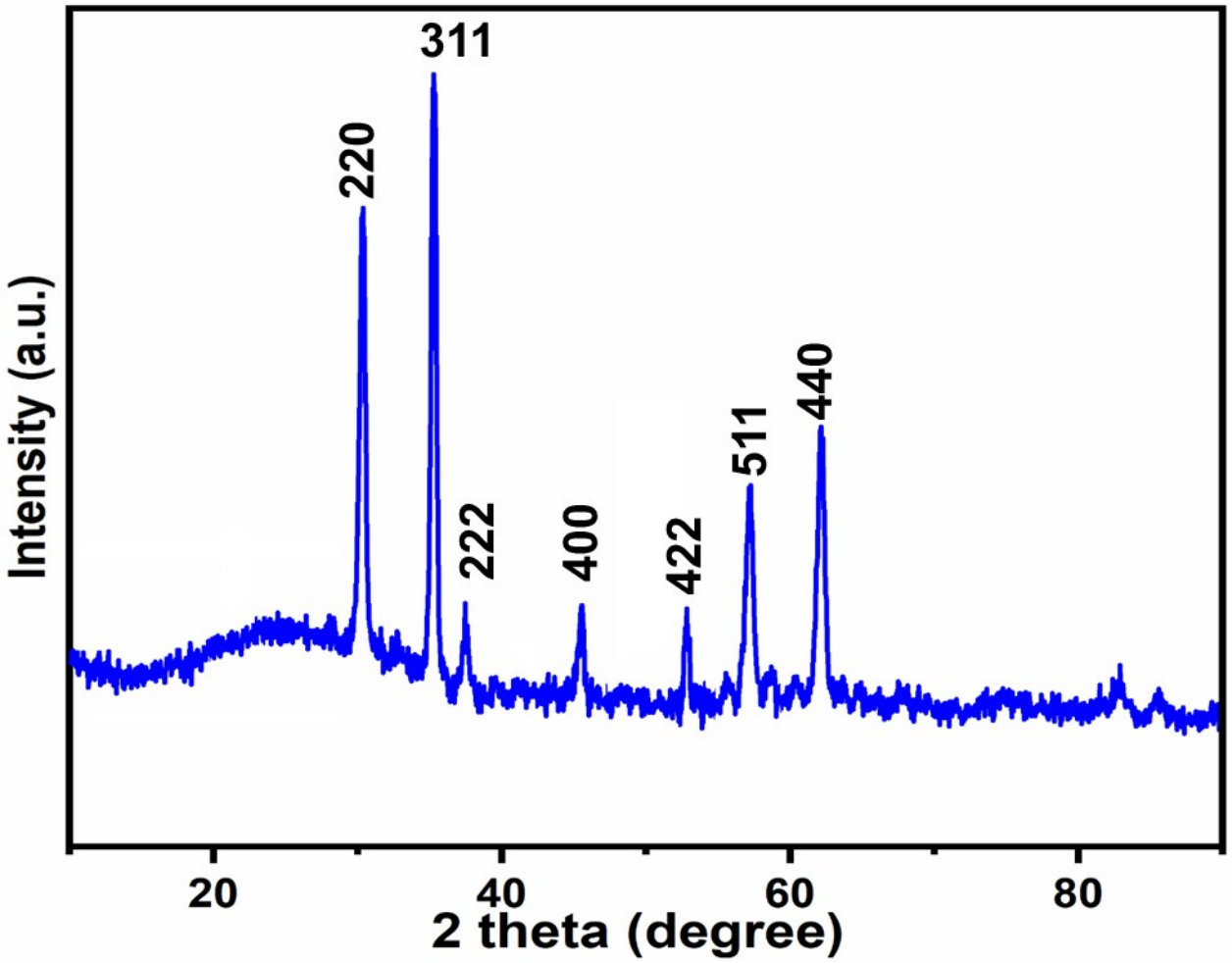
S1. Chemical purchases and instrumentations:

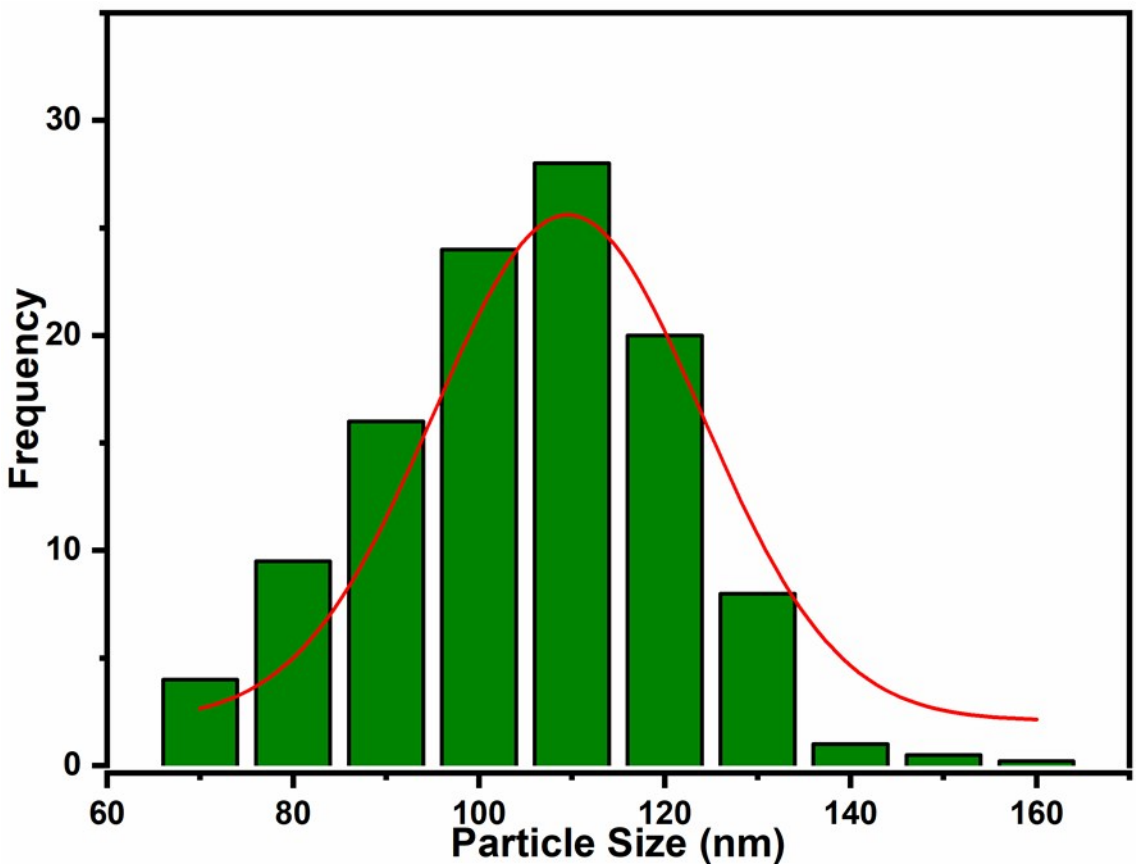
All the chemicals and reagents were purchased from Sigma-Aldrich (http://www.sigmaaldrich.com/taiwan.html), but BPA was from India. All the chemicals were utilized without any purifications. The scree-printed carbon electrodes were bought from Zensor R&D Co., Ltd., Taipei, Taiwan (http://www.zensor.com.tw/index_en.html). The supporting electrolyte consumed for the electrochemical studies is 0.1 M phosphate buffer pH 7. The resulting plots exhibited were the average of no less than three experiments. The error bars were provided from the standard deviation of those three measurements.

The electrochemical experiments were carried out through CHI 1205B workstation. The experiments were done in a conventional three-electrode cell using BAS SPCE as a working electrode (area 0.20 cm^2), Pt wire as a counter electrode, and saturated Ag/AgCl as a reference electrode. *it*-curves were obtained through the analytical rotator AFMSRX (PINE instruments, USA) by a rotating disc electrode (RDE) with the working area of 0.24 cm^2. The X-ray photoelectron spectroscopy studies were done through a PerkinElmer PHI-5702. Field Emission Scanning electron microscopy (FE-SEM) studies were made with Hitachi S-3000 H scanning electron microscope. A Hewlett-Packard (Palo Alto, USA) 1050 HPLC system was used for HPLC analysis and wavelength of the UV detector was set at 275 nm.

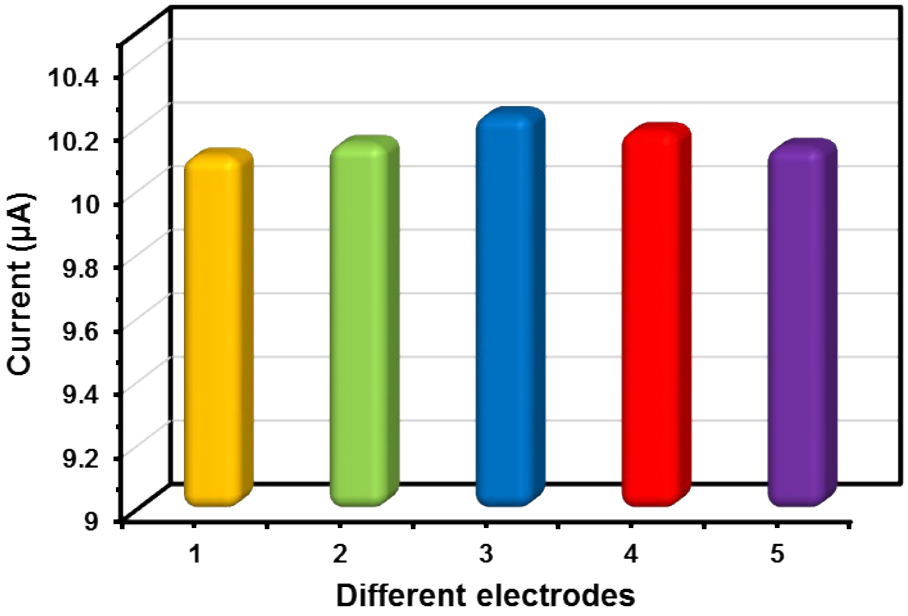
S2. Existence of other materials in recovered Fe_3O_4:




311
220
222
400
422
511
440
Intensity (a.u.)
20
40
60
80
2 theta (degree)


Frequency
30
20
10
0
60
80
100
120
140
160
Particle Size (nm)

S3. Repeatability:



CVs obtained at five individual Fe_3O_4/GO/GCEs in pH 7 (0.1 M) comprising 50μM BPA, which is explained in sec 3.10