Electronic Supplementary Material (ESI) for RSC Advances.

Solvothermal preparation of Ag nanoparticle and graphene co-loaded TiO_2 for Photocatalytic degradation of Paraoxon pesticide under visible light irradiation

Amir Homayoun Keihan[a], Reza Hosseinzadeh[b], Mousa Farhadian[c], Hamid Kooshki[d], Ghader Hosseinzadeh[e]*

a. Molecular Biology Research Center, Baqiyatallah University of Medical Science, Tehran, Iran

b. Medical Laser Research Center, ACECR, Tehran, Iran

c. Department of Materials Engineering, Isfahan university of technology, Isfahan, Iran

d. Nanobiotechnology Research Center, Baqiyatallah University of Medical Science, Tehran, Iran

e. Young Researchers and Elite Club, West Tehran Branch, Islamic Azad University, Tehran, Iran

Supplementary Material:

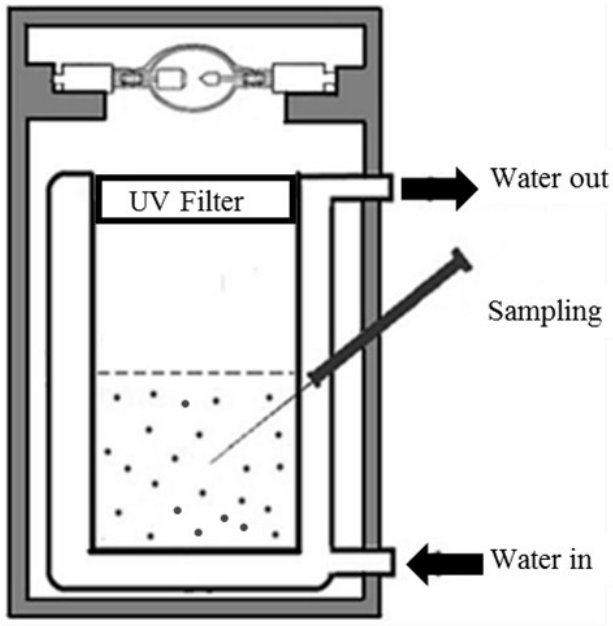

Fig. s1. Schematic illustration of the photoreactor setup

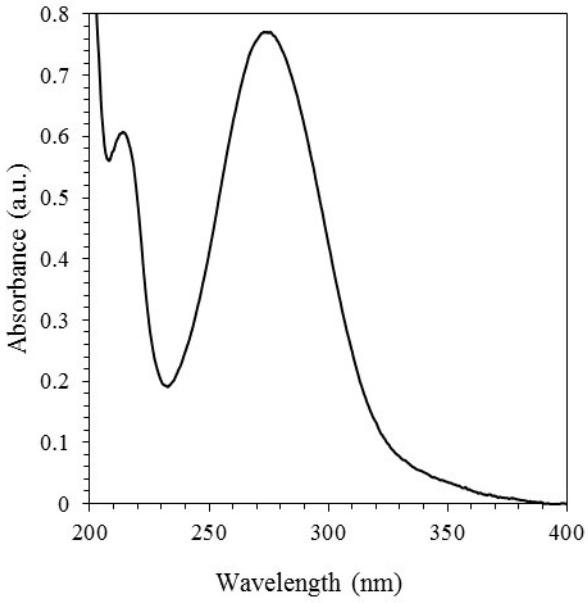

Fig. s2. UV-Vis absorption spectra of Paraoxon solution with concentration of 31 mg/L.

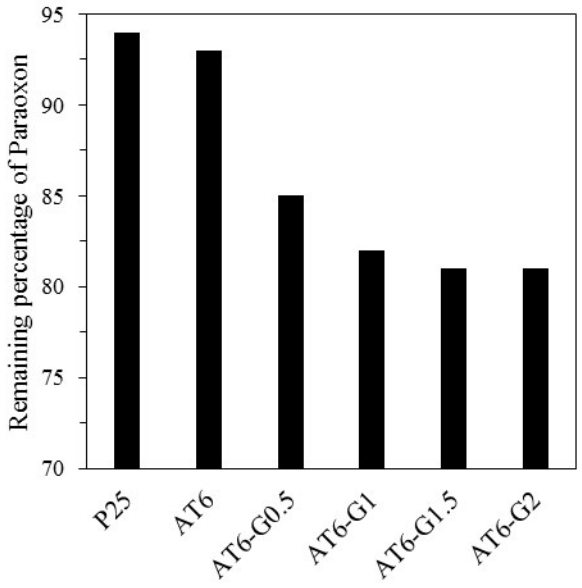

Fig. s3. The remaining percentage of Paraoxon in presence of different photocatalysts in solution in dark step after 120 min stirring.

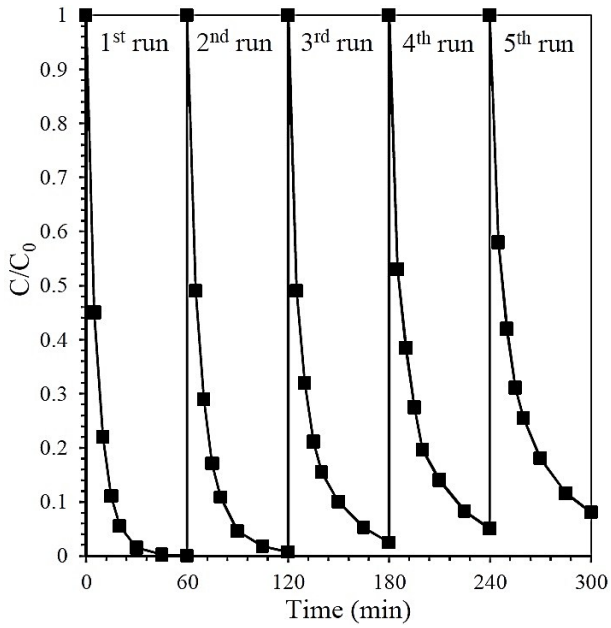

Fig. s4. Cycling runs for photocatalytic degradation of Paraoxon over the AT-G1 photocatalyst under visible light irradiation.

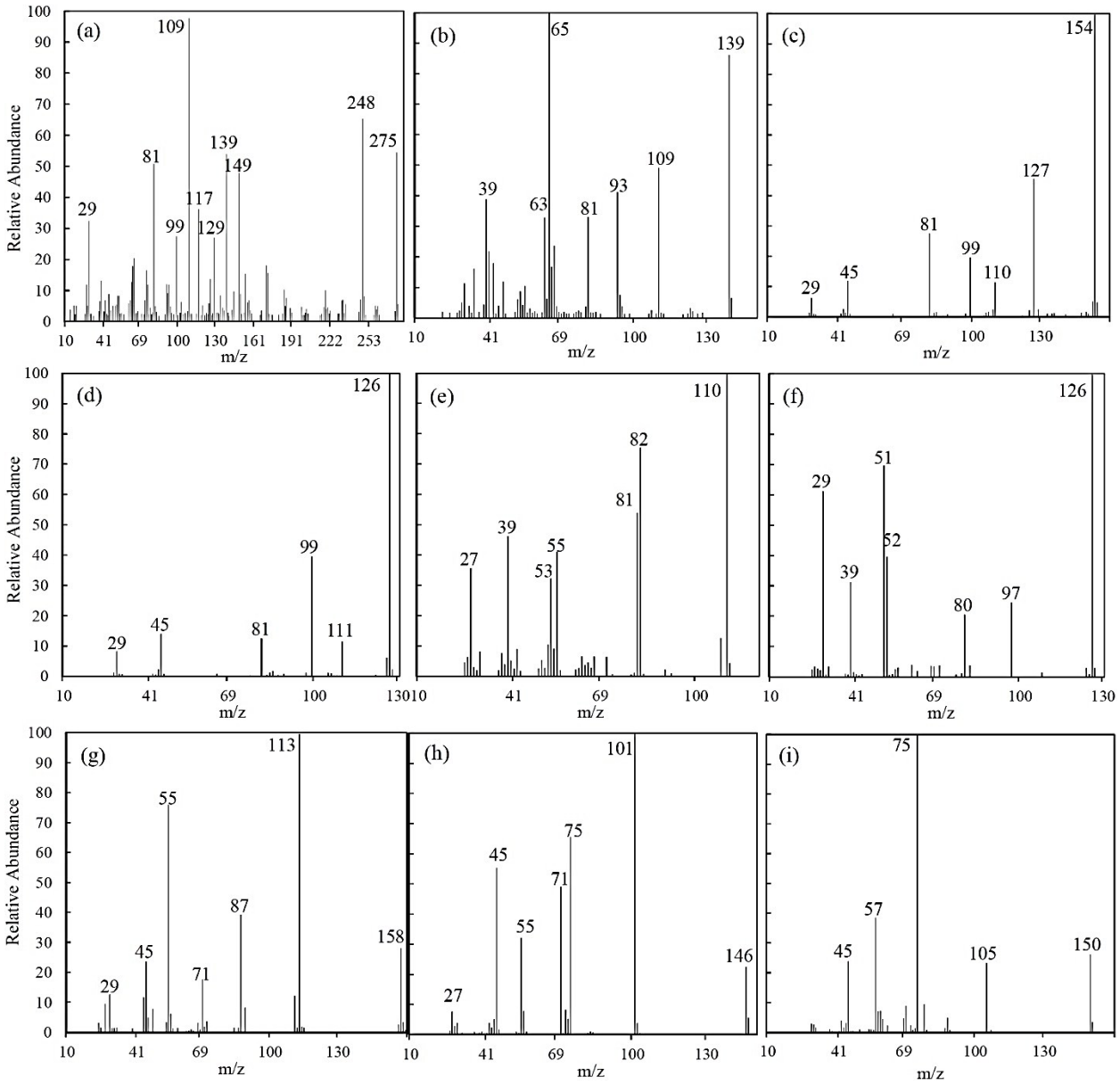

Fig. s5. Mass spectra of (a) Paraoxon, (b) 4-nitrophenol, (c) di-ethylphosphate, (d) mono-ethylphosphate, (e) hydroquinone, (f) hydroxyhydroquinone, (g) 3-hydroxy-hexa-2,4-dienedioic acid, (h) 4-hydroxy-pent-2-enedioic acid, and (i) Tartaric acid.