

Table 1S: XPS data of C1s of Bi₂₅FeO₄₀-(20) graphene catalyst, including binding energies and area percentages relative to C-C bonds in parentheses.

Samples	C-C	C-OH	C-O-C	HO-C=O
GO[1]	284.86 (100)	286.19 (28)	287.57 (59)	289.24 (11)
Bi ₂₅ FeO ₄₀ -(20)RG	284.50 (100)	286.48 (2.1)	287.59 (9.3)	289.30 (9.5)

References

- [1] C. Xu, X. Wang, J. Zhu, J. Phys. Chem. C 112 (2008) 19841-19845.

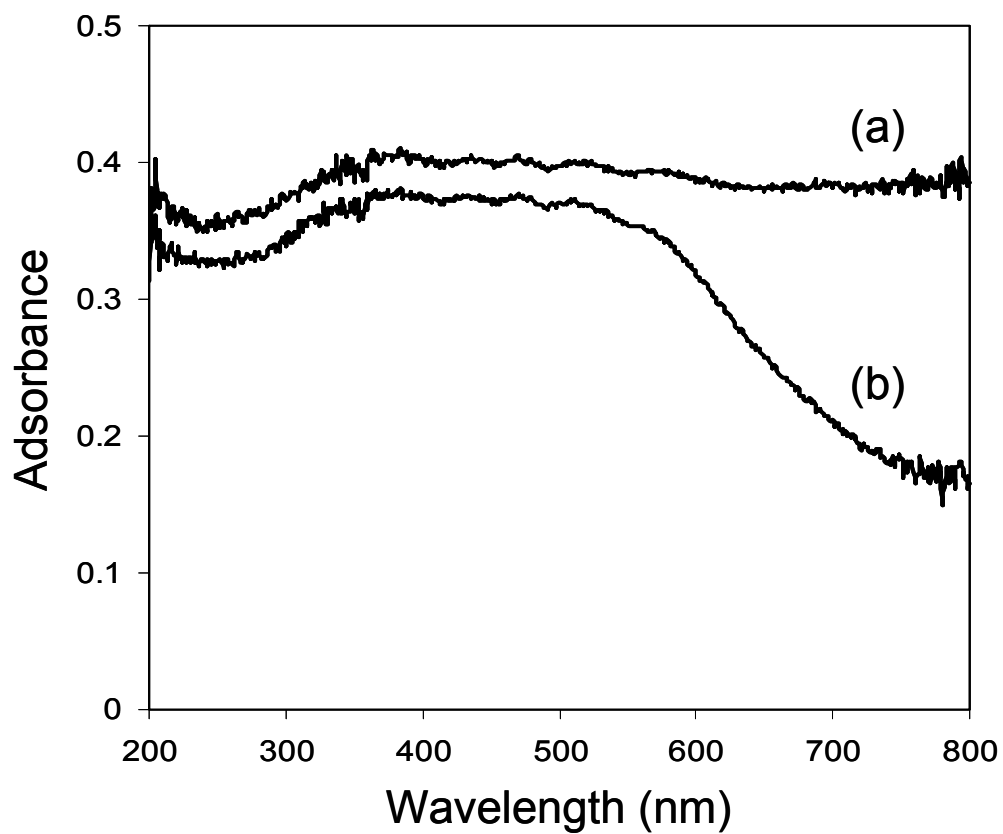


Figure 1S. UV-vis diffuse reflectance spectra of (a) $\text{Bi}_{25}\text{FeO}_{40}$ -(20) graphene and (b) pure $\text{Bi}_{25}\text{FeO}_{40}$.

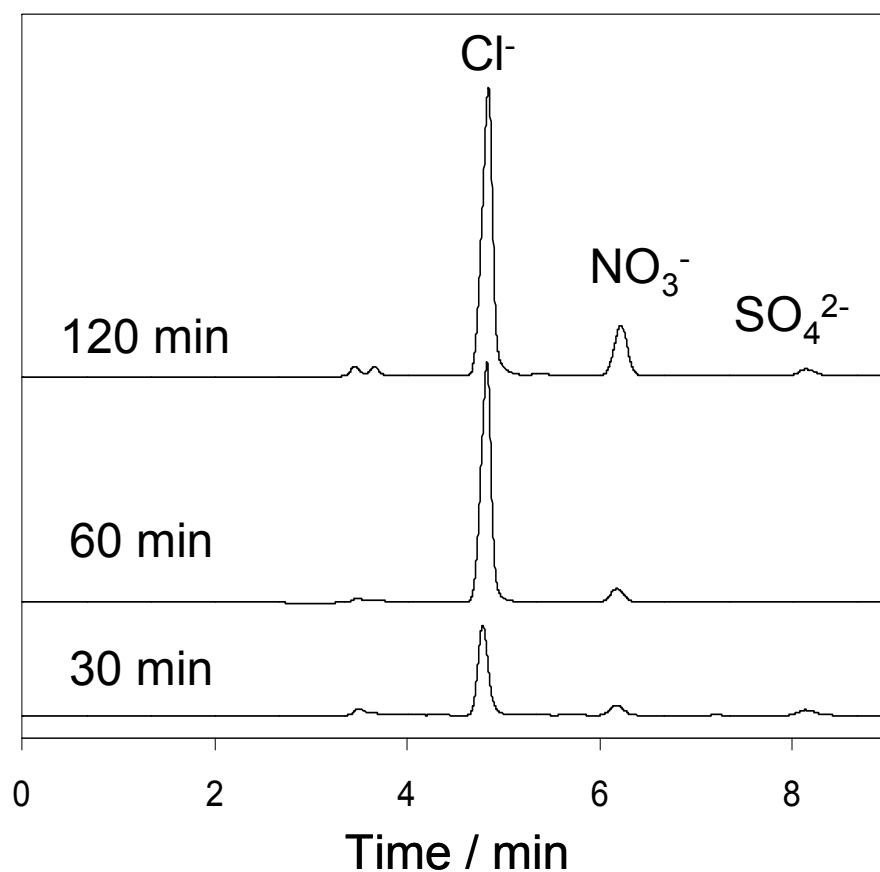


Figure 2S. IC chromatograms of the production of MB solutions photodegraded at different time by the $\text{Bi}_{25}\text{FeO}_{40}$ -(20) graphene photocatalyst. (The amount of Cl^- is 0.03 , 1.10 and 1.73 mg L^{-1} at irradiation time of 30, 60 and 120 min, respectively.)