

## Influence of the substituent on selective photocatalytic oxidation of aromatic compounds in aqueous TiO<sub>2</sub> suspensions

Giovanni Palmisano,<sup>\*a</sup> Maurizio Addamo,<sup>a</sup> Vincenzo Augugliaro,<sup>a</sup> Tullio Caronna,<sup>b</sup> Elisa García-López,<sup>a</sup> Vittorio Loddo<sup>a</sup> and Leonardo Palmisano<sup>a</sup>

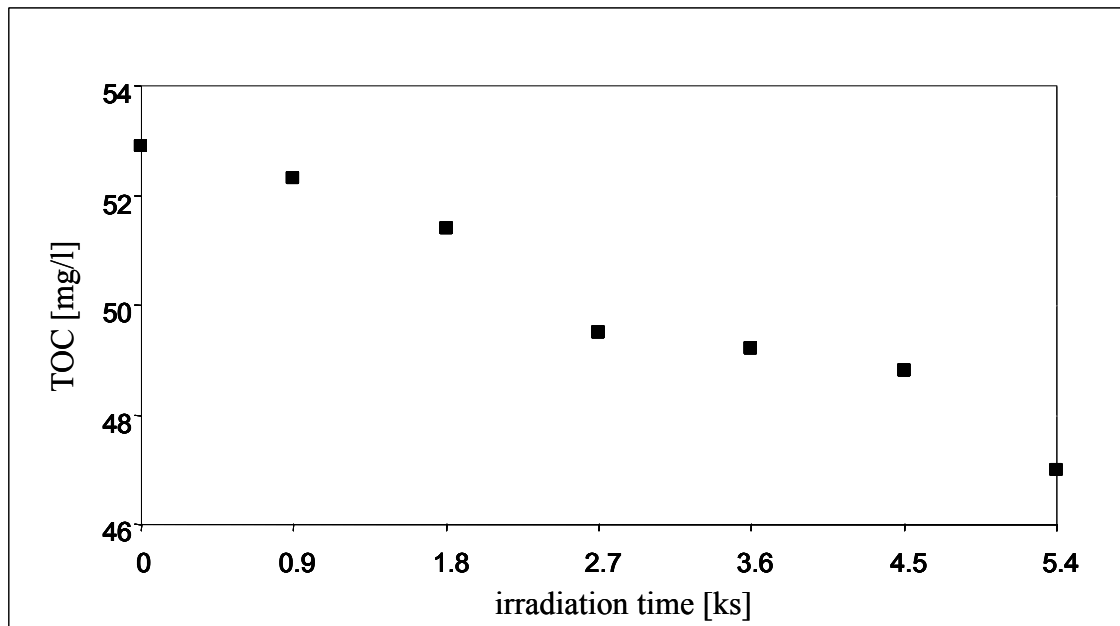
<sup>a</sup> Dipartimento di Ingegneria Chimica dei Processi e dei Materiali, Università degli Studi di Palermo, Viale delle Scienze, 90128 Palermo, Italy. Fax: +39 091 6567280; Tel: +39 091 6567246; E-mail:

giovanni\_palmisano@yahoo.it, palmisano@dicpm.unipa.it

<sup>b</sup> Università di Bergamo, Facoltà di Ingegneria, Via Marconi 5, I – 24044 Dalmine, Bergamo, Italy.

Figure S1 shows the trend of TOC for the photo-oxidation of nitrobenzene: it can be seen that there is a significant production of CO<sub>2</sub> since the beginning of the irradiation. This trend confirms the occurrence of this parallel reaction pathway.

Figures S2-S5 show the courses of photocatalytic oxidation runs starting from phenol, phenylamine, cyanobenzene and 1-phenyl-ethanone. They were not present in the article for the sake of brevity. As it can be seen all the experiments are in accord with the conclusions reported in the article.



**Figure S1.** TOC trend during the photocatalytic oxidation of nitrobenzene (initial substrate concentration: 0.8 mM).

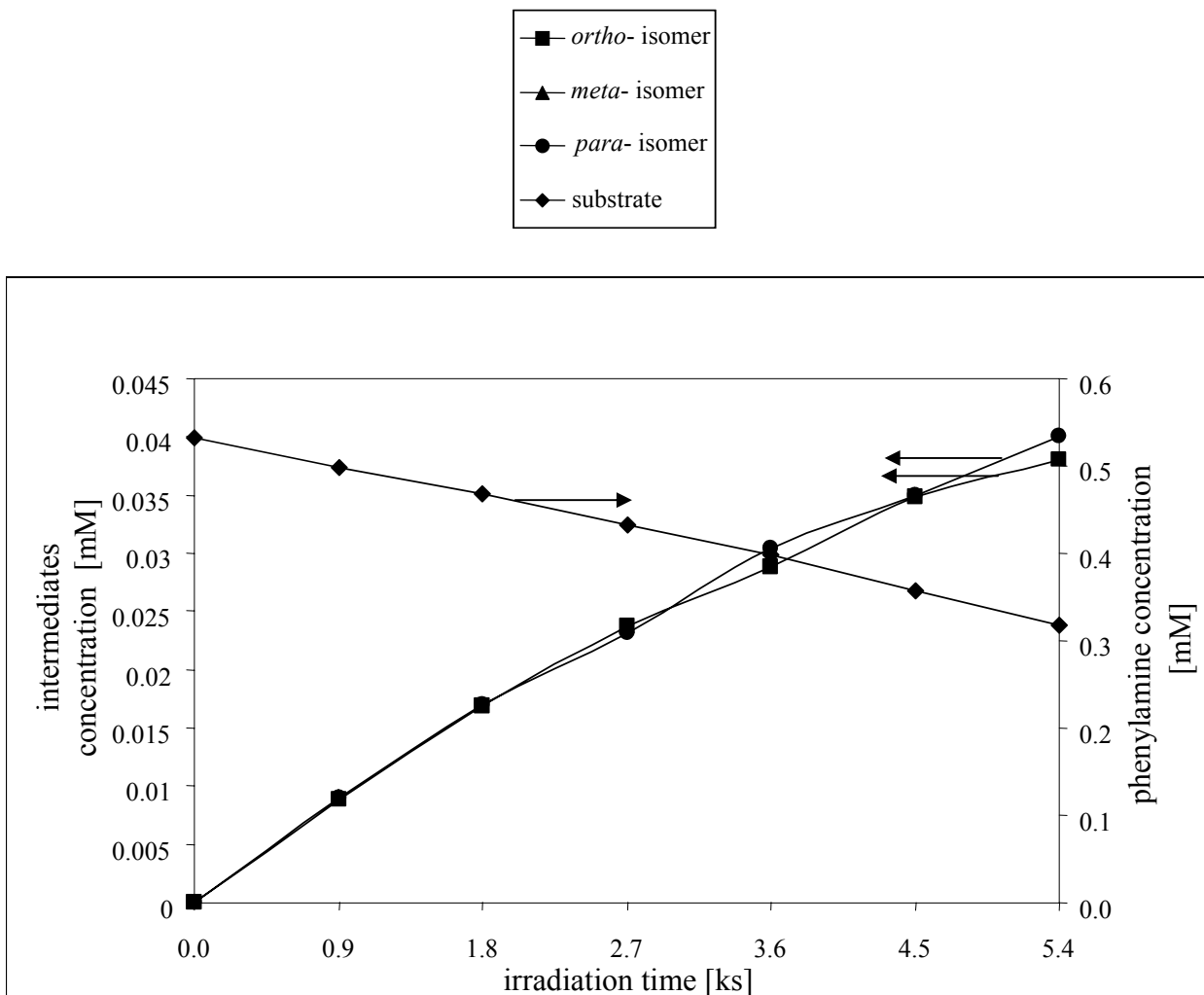


Figure S2. Photocatalytic oxidation of phenylamine.

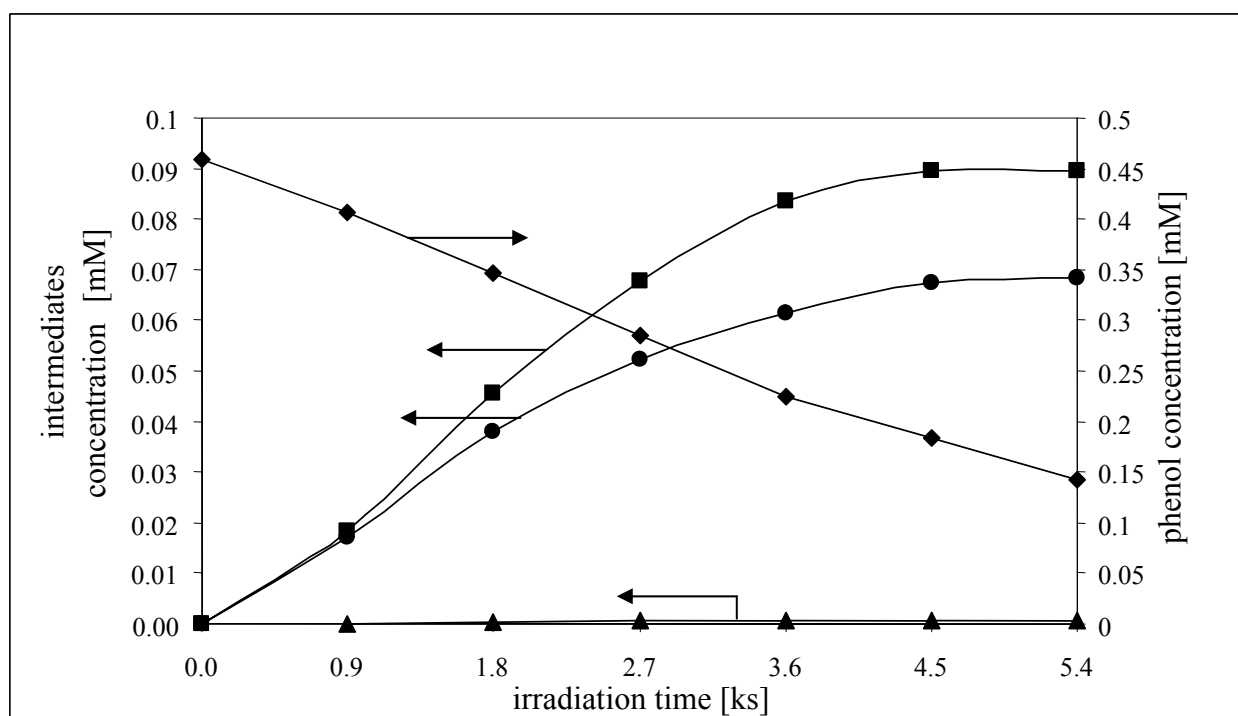


Figure S3. Photocatalytic oxidation of phenol.

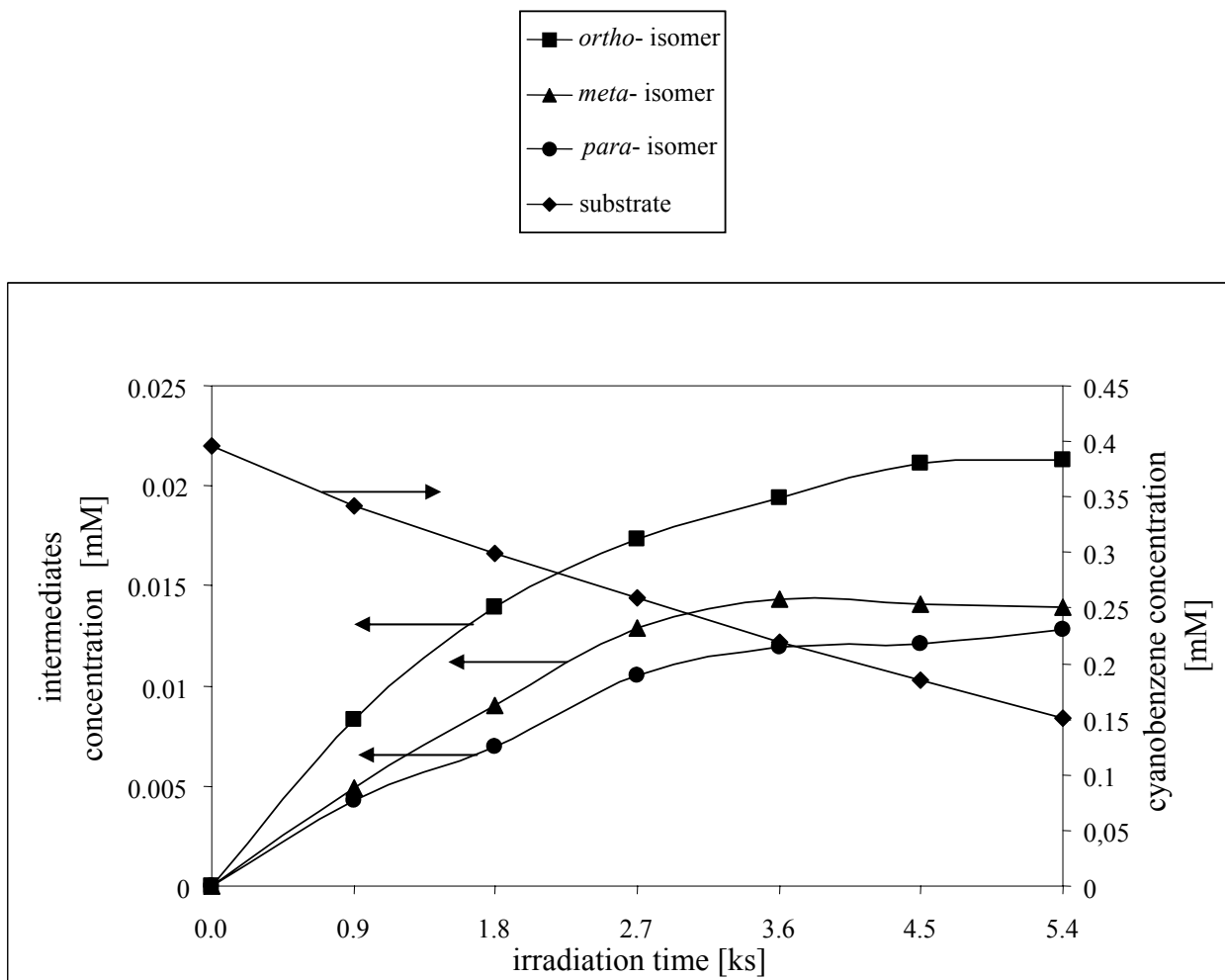


Figure S4. Photocatalytic oxidation of cyanobenzene.

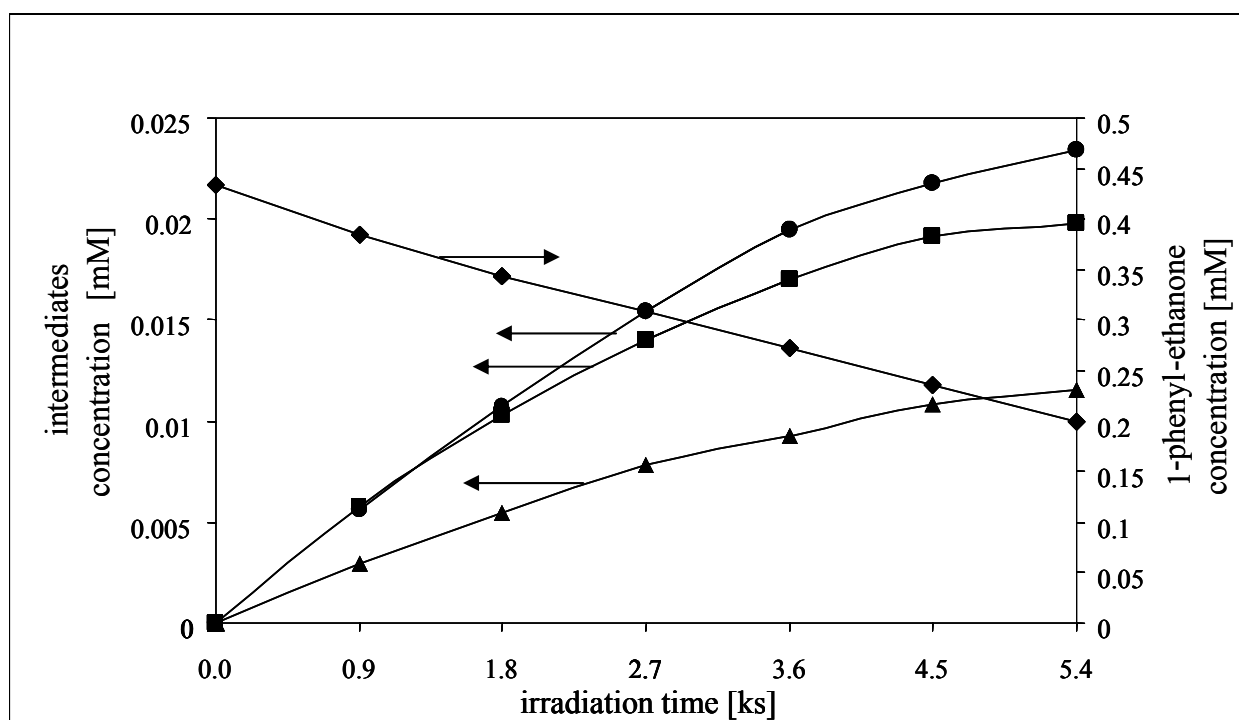


Figure S5. Photocatalytic oxidation of 1-phenyl-ethanone.