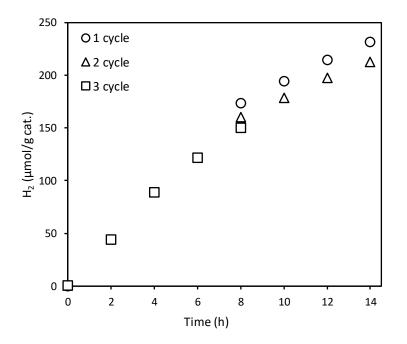


Figure S1. Spectrum of the Hg lamp.



**Figure S2.** Production of hydrogen during the photocatalytic reduction of CO<sub>2</sub> in presence  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>\_500 in the three cycles.