

Photo-Fenton Degradation of Methyl Orange with Dunino Halloysite as a Source of Iron

Simona Filice^{1,*}, Corrado Bongiorno¹, Sebania Libertino¹, Leon Gradon², Daniela Iannazzo³ and Silvia Scalese^{1,*}

¹Istituto per la Microelettronica e Microsistemi, Consiglio Nazionale delle Ricerche (CNR-IMM), Ottava Strada n.5, I-95121 Catania, Italy; simona.filice@cnr.imm.it, corrado.bongiorno@imm.cnr.it, sebania.libertino@imm.cnr.it, silvia.scalese@imm.cnr.it

²Faculty of Chemical and Process Engineering, Warsaw University of Technology, ul. Warynskiego 1, 00-645 Warsaw, Poland; Leon.Gradon@pw.edu.pl

³ Dipartimento di Ingegneria, Università degli Studi di Messina, Contrada di Dio, I-98166, Messina, Italy; daniela.iannazzo@unime.it

*Correspondence: simona.filice@imm.cnr.it; silvia.scalese@imm.cnr.it

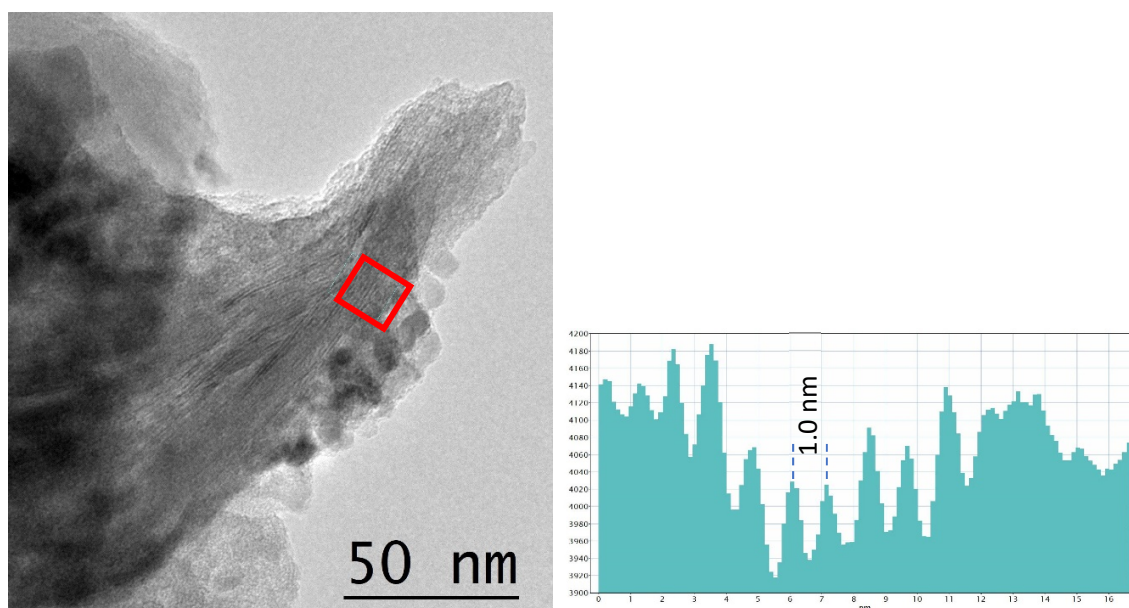


Figure S1: HR-TEM image of HT(H⁺) sample and its line profile from the region defined by the red box. The (001) basal spacing measured by the line profile is 1.0 nm.

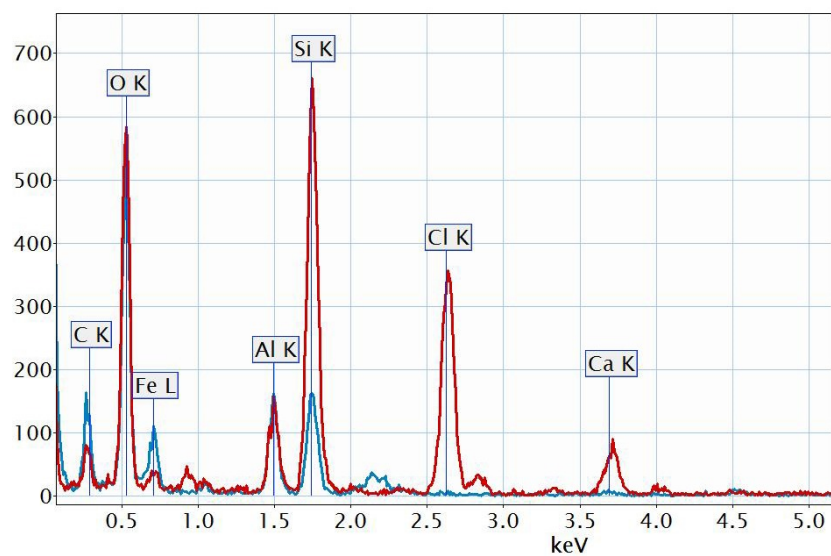


Figure S2: EDX spectra acquired on initial (blue curve) and treated (red curve) samples during TEM acquisition. The spectra are normalized with respect to the peak of oxygen.

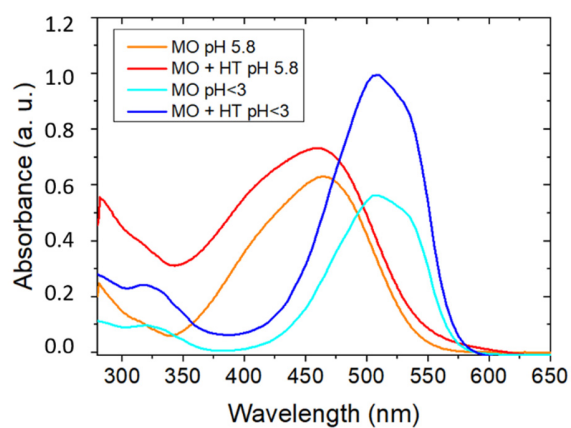


Figure S3: UV-Visible spectra of MO solutions and HT/MO solutions both at neutral and acid pH.

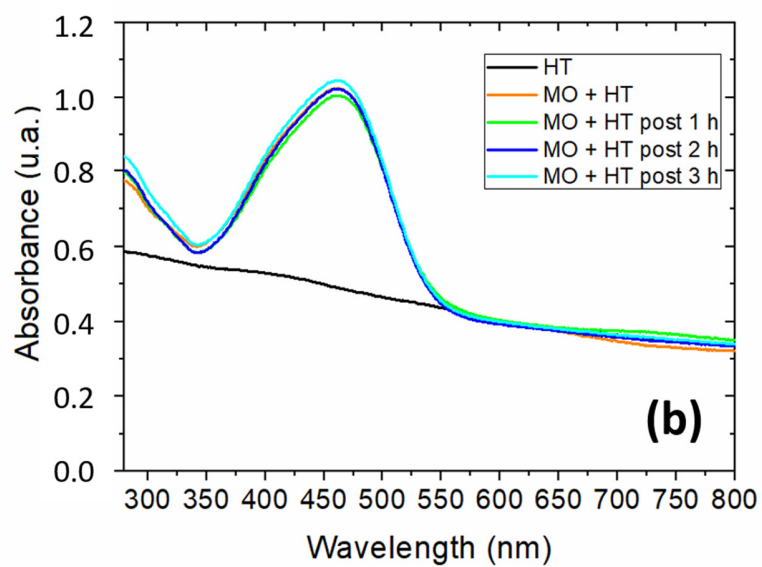
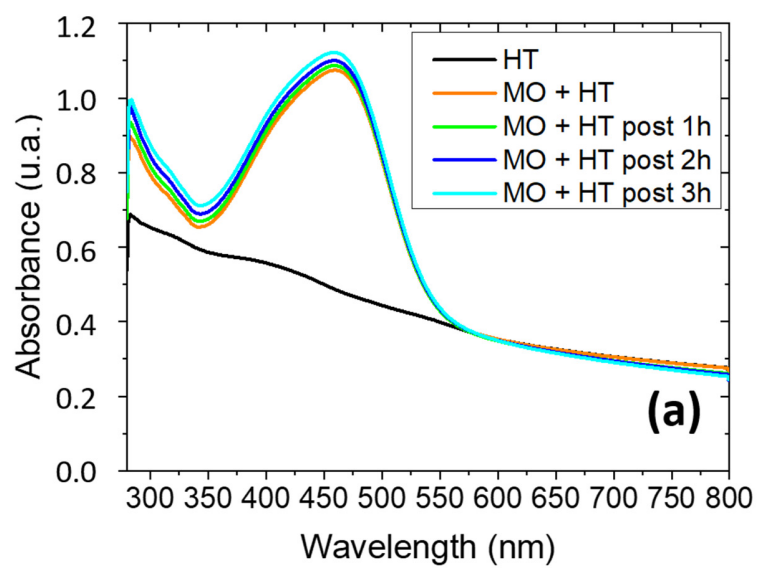


Figure S4: UV-Visible spectra of raw HT sample after adding MO at pH=5.8 in dark (a) and under UV-Visible light irradiation (b).

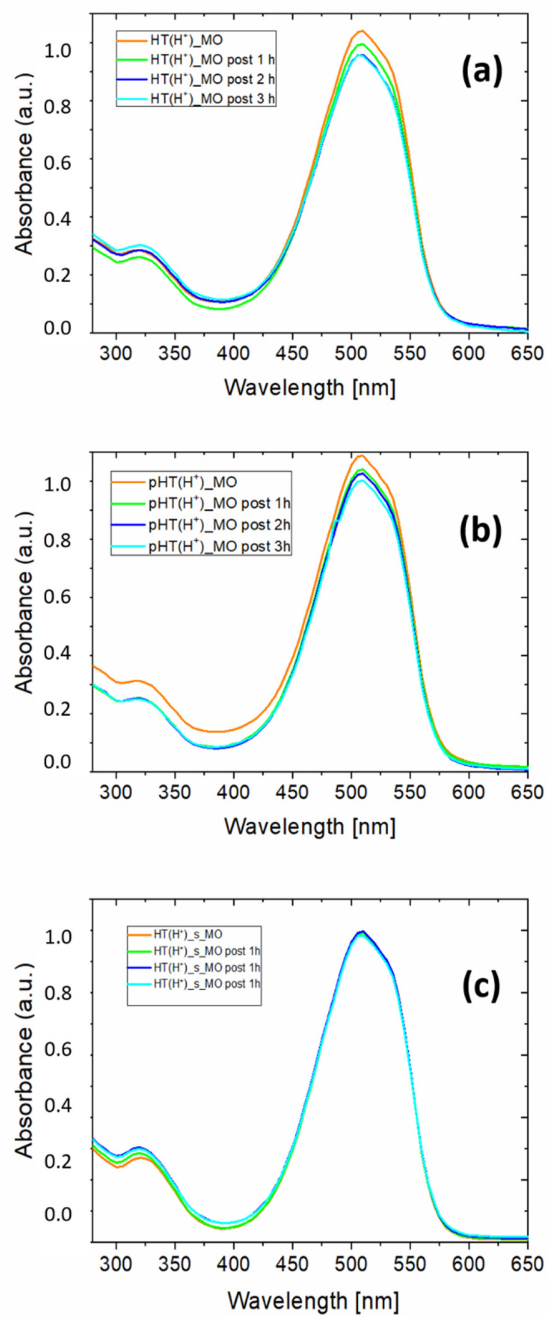


Figure S5: UV-Visible spectra of (a) HT(H⁺), (b) p HT(H⁺) and (c) sHT(H⁺) after adding MO in dark.

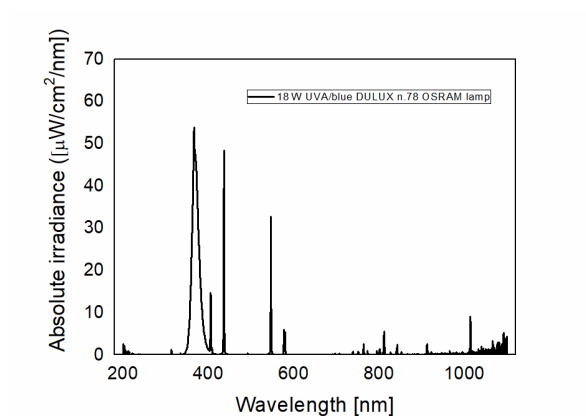


Figure S6: The emission spectra of an 18 W UVA/blue DULUX n.78 OSRAM lamp.