

Green and low-cost synthesis of PANI-TiO₂ nanocomposite mesoporous films for photoelectrochemical water splitting

D. Hidalgo ^{a,b}, S. Bocchini ^a, M. Fontana ^{a,b}, G. Saracco ^b, S. Hernández ^{a,b,*}

^a Center for Space Human Robotics, Istituto Italiano di Tecnologia, IIT@POLITO, Torino, Italy

^b Applied Science and Technology Department, DISAT, Politecnico di Torino, Torino, Italy

* e-mail: simelys.hernandez@polito.it / Tel. +39 011.0904774

Supporting Information

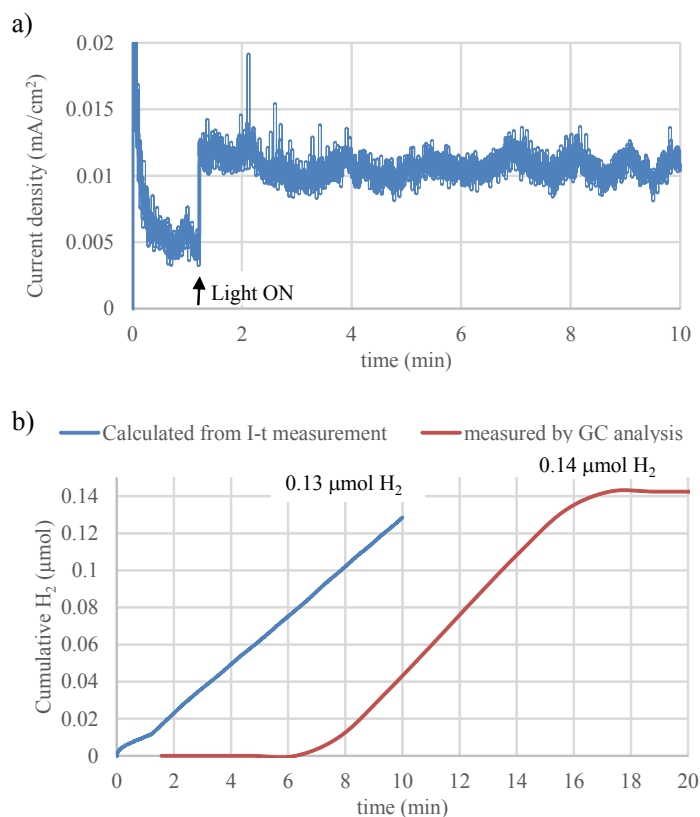


Figure S1. a) Photocurrent vs. time of PANI/TiO₂ film at an applied potential of 0.6 V vs. Ag/AgCl for 10 min, under continuous stirring and stripping of the products by an Ar flow of 25 Nml/min. b) Cumulative H₂ produced both calculated from the *I-t* curve reported in a) (blue line) and measured by micro-GC analysis (red curve) with an error of about 10% due to the low concentration of the H₂ measured values (about 10 to 15 ppm of H₂). It was not possible to measure the O₂ evolved due to limitations on the sensibility of the instrument and to the difficulty to remove all the O₂ present in the air from the electrochemical cell during the measurements.