Fluores- cence emission-excitation matrices (EEMS) of the secondary and photocatalytically treated.3.3 wastewaters were measured using a Fluoromax+ (Horiba) luminescence spectrometer, by means of scanning the emission wavelengths (Em) from 260 to 600 nm at 1 nm-increments and stepping through the excitation wavelengths (Ex) from 240 to 550 nm at 5 nm intervals. Inorganic ions were determined using an ion chromatograph (Shimadzu CDD-6A) equipped with a column (Shimadzu Shim-pack IC-A3 150 x 4.00 mm, 5 um), a column oven (CTO-10A VP) and a conductivity detector (Shimadzu CBM-20A). Determination of Physicochemical Parameters Five-day biochemical oxygen demand (BOD5) was measured by means of a WTW OxiTop OC 110 system and a WTW TS 606-G/2-i thermostat cabinet (WTW, Weilheim, Ger- many). Absorbance at 254 nm was determined using a UV-Vis spectrophotometer (Jasco-V630, Tokyo, Japan) in order to indirectly evaluate the aromatic .compound content