Figure 1: Growth curves of *Pseudomonas fluorescens* from absorbance vs. incubation time (left) in nutrient broth in the presence of NOR at concentrations of 0.84 mg L-1 (orange), 0.42 mg L-1 (blue), 0.21 mg L-1 (red), 0.10 mg L-1 (green), and in the absence of NOR (purple); activity vs. concentration of NOR with function computed for IC50 determination (right).

Figure 2: Normalized c-t curves as obtained from HPLC-ESI-IT-MS upon UVC irradiation of 20 mg L-1 aqueous solutions of TET (diamonds), SMX (dots), TYL A (triangles) and LOM (squares).

Figure 3: Petri dishes of Rhine river water, upon addition of LOM at final concentration of 2.21 mg L-1 (a), 1.11 mg L-1 (b), 0.55 mg L-1 (c) untreated (d) at final concentration of 2.21 mg L-1 without irradiation after 7 min of UVC irradiation; a-d were sampled on June 8, 2017, e and f on May, 2017. Differences in bacterial growth of d and e are due to seasonal variations.

Table 1 MIC and IC50 values of the antibiotics tested against the microorganisms *Ps. fluorescens* and *B. subtilis*.

Table 2 Rate constants *k* and half-lives *t1/2* of parent drug compounds in UVC irradiated aqueous solution obtained from HPLC-ESI-IT-MS data and using a first-order kinetic model according to equation (2) and the *t*act against B. subtilis and *Ps. fluorescens*.

Table 3 Structure proposals of the observed parent drug, degradation products or intermediates in UVC irradiated aqueous solutions of CIP, ENO, LEV, LOM, NOR, TYL, SMX and TET together with their retention times and the m/z values of the observed for the quasi-molecular ion and their MS/MS fragments used for structure elucidation

Table 4 MIC values of aqueous solutions containing CIP, ENO, LEV, LOM, NOR, TYL, SMX and TET, on *Ps. fluorescens* and *B. subtilis* at increasing irradiation times

Table 5 QSAR analysis of photodegradation products against Fathead minnow, actinopterygii and branchiopoda with safer (italic) and dangerous (bold) products.