Supporting Information Figure Captions:

Figure 1, Supporting Information: HPLC elution profile of the reaction mixture of dGuo with DDE in the presence of oxidized THF. The chromatogram was obtained with HPLC system 1. Conditions as described in the Experimental section.

Figure 2, Supporting Information: UV absorption spectra of: a) adduct A7; b) adducts A8 + A9 at different pH. pH 1: 50 mM HCl-KCl; pH 7: 50 mM phosphate buffer; pH 11: 50 mM carbonate-bicarbonate buffer. Conditions as described in the Experimental section.

Figure 3, Supporting Information: ESI/MS spectra of (a) adduct A7 and (b) adducts A8, A9. Cone voltage: 50 V. Conditions as described in the Experimental section.

Figure 4, Supporting Information: ${}^{1}H - {}^{1}H$ two-dimensional COSY NMR spectrum of adducts A8 + A9 in DMSO- d_6 .

Figure 5, Supporting Information: DEPT NMR spectrum of adducts A8 + A9 in DMSO- d_6 .

Figure 6, Supporting Information: ${}^{1}H - {}^{13}C$ two-dimensional HMQC spectrum of adducts A8 + A9 in DMSO- d_6 .

Figure 7, Supporting Information: HPLC elution profile with ESI/MS (SIR) detection of the ions $[M+H]^+$ m/z 292 $(1,N^2\text{-}\varepsilon\text{dGuo})$, 653 (A7), and 362 (A8, A9) of (a) purified adduct A7 incubated in 0.05 M phosphate buffer (pH 7.4) for 15 min, 5 h, and 24 h; (b) purified adducts A8 + A9 incubated in 0.05 M phosphate buffer (pH 7.4) for 15 min, 5 h, and 24 h. The chromatograms were obtained with HPLC system 3. Conditions as described in the Experimental section.