



## Supporting Information

for

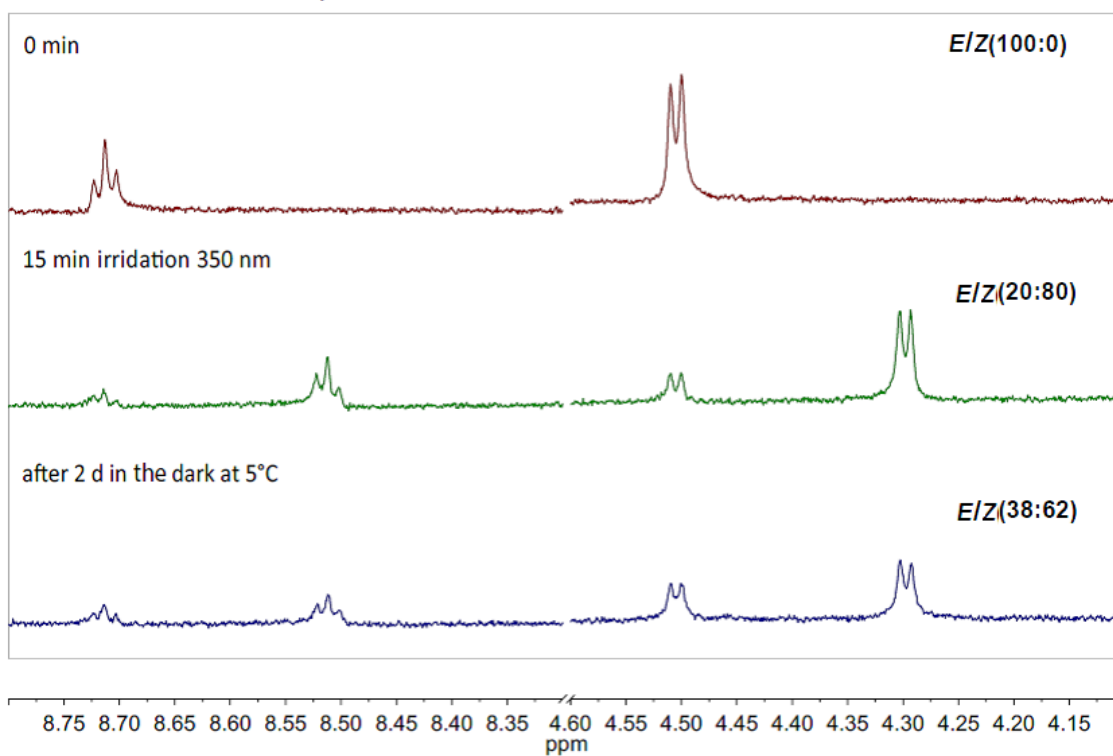
### **Photocontrolled DNA minor groove interactions of imidazole/ pyrrole polyamides**

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and Norbert Sewald

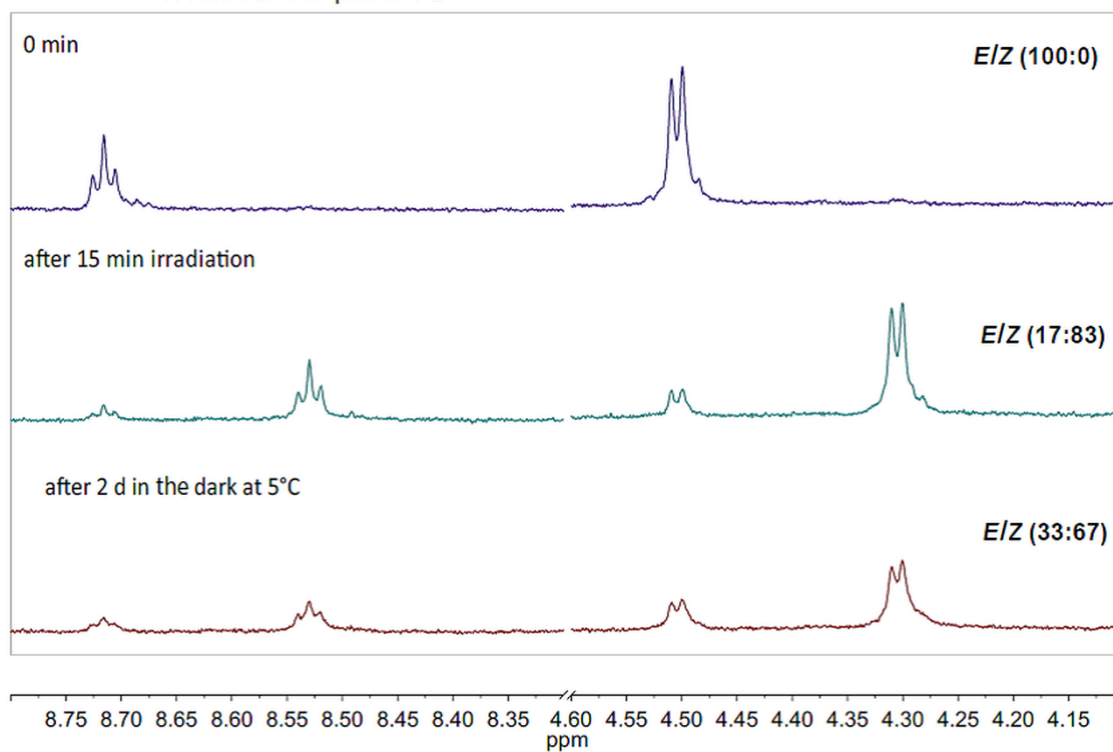
*Beilstein J. Org. Chem.* **2020**, *16*, 60–70. doi:10.3762/bjoc.16.8

### **Photoisomerization of P1–P3 and TO displacement experiments**

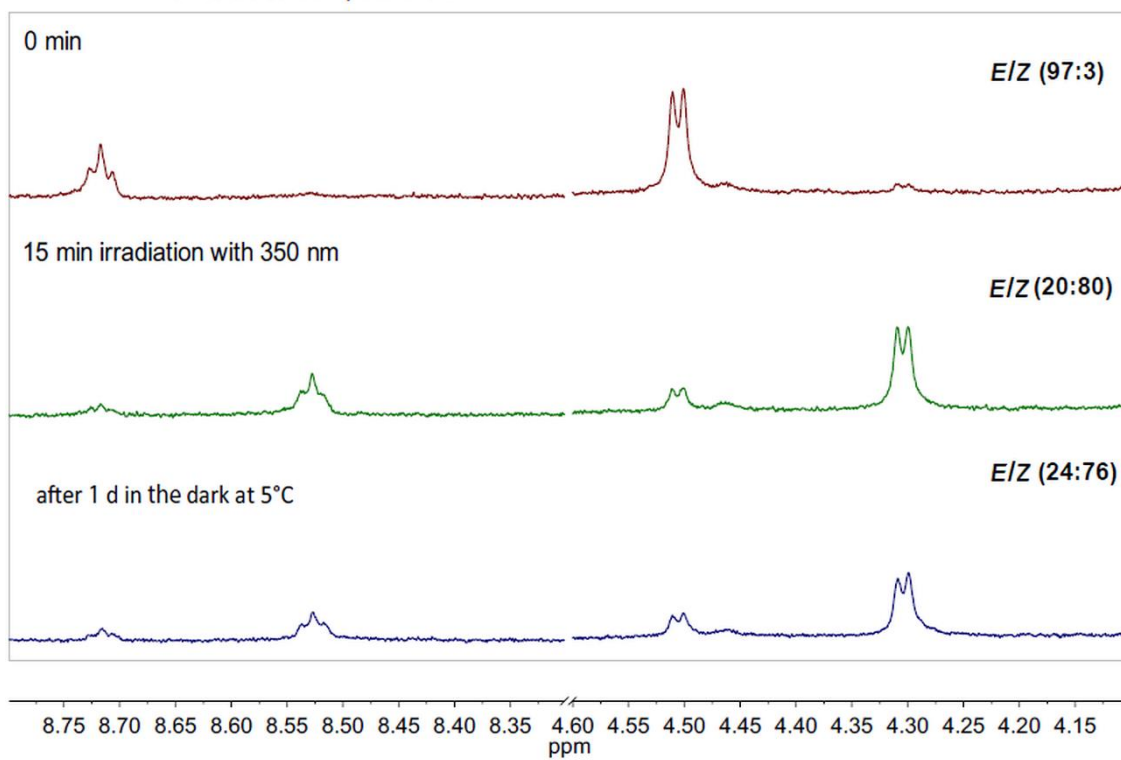
<sup>1</sup>H-NMR of Compound P1



<sup>1</sup>H-NMR of Compound P2



<sup>1</sup>H-NMR of Compound **P3**

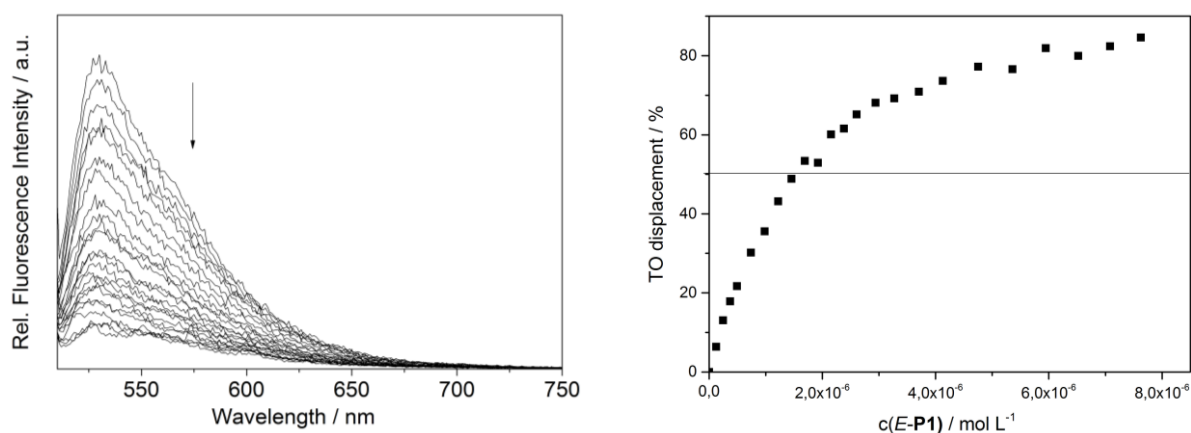


### Fluorescent indicator displacement (FID) assay

A stock solution of duplex DNA was prepared from ct DNA (12.5  $\mu\text{L}$ ,  $c = 20 \mu\text{mol/L}$  in BPE buffer) and incubated (30 min) with TO (10  $\mu\text{L}$ ,  $c = 50 \mu\text{mol/L}$ ). The emission spectrum was recorded from 506 nm to 750 nm ( $\lambda_{\text{ex}} = 501 \text{ nm}$ ). A solution of *E-P1* was added stepwise, and 3 min after each addition an emission spectrum was recorded. The fluorescence band (510-750 nm) was analyzed by integration of each emission signal ( $FA$ ). The percentage of displacement  $PD$  was determined according to Eq 1.

$$PD = 100 - \frac{FA}{FA_0} \cdot 100 \quad (\text{Eq. 1})$$

$FA_0$  is the integral of the emission signal before the addition of the ligand solution.  $PD$  was plotted as a function of the ligand concentration.



**Figure S1.** Left: Fluorimetric detection of the displacement of Thiazole Orange (0.5  $\mu\text{M}$ ) from ct DNA by addition of *E-P1*. Right: Plot of the percentage of displacement according to eq. 1 versus  $c(E-P1)$ .