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Addition/Correction

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Correction to "Synthetic, Functional Thymidine-Derived Polydeoxyribonucleotide Analogues from a Six-Membered Cyclic Phosphoester"

Yi-Yun Timothy Tsao and Karen L. Wooley*

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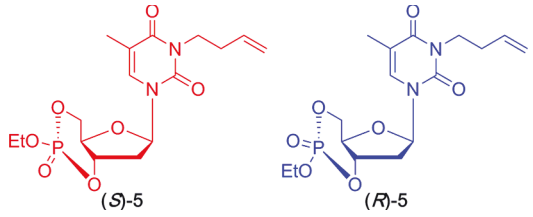
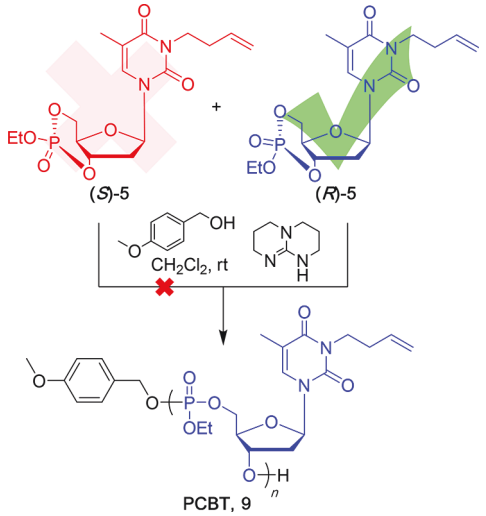
Supporting Information

There are mistakes in the stereochemical structures for (*R*)-**5** and (*S*)-**5** in the original manuscript in the Abstract graphic, Scheme 1, Scheme 2, Figure 2, Figure 3, Table 2, and the Supporting Information (the chemical structures are shown here as original and corrected structures in Chart 1). These changes do not affect any of the conclusions. The corrected abstract graphic, figures, schemes, and tables are shown below. The corrected structures are provided in the revised Supporting Information. We apologize to the reader for any inconvenience.

Chart 1. Original and Corrected Chemical Structures of (*R*)-5 and (*S*)-5

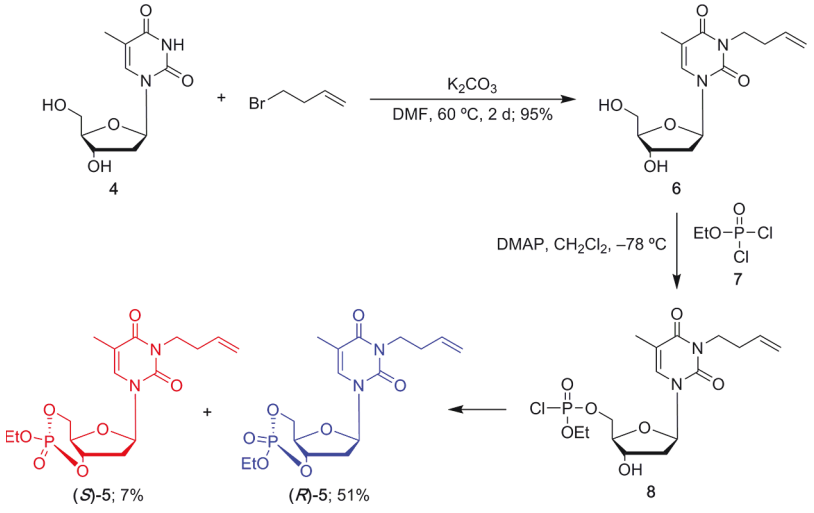


Scheme 2. Polymerization of 5 with 4-Methoxybenzyl Alcohol as the Initiator and TBD as the Catalyst[a]



[a]Although the polymer is illustrated with only one regiochemistry and no stereochemistry, ^{31}P NMR spectra suggested that the polymers contained regioisomeric and diastereoisomeric repeat units.

Scheme 1. Synthetic Route from Thymidine to Monomer 5



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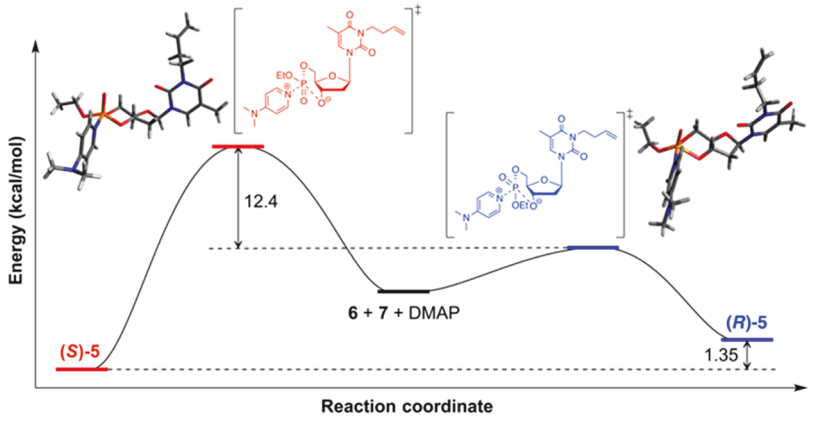

Figure 2. Reaction coordinate diagram of using DMAP as activator to promote cyclization of **6** at the B3LYP/6-31+G* level of theory.

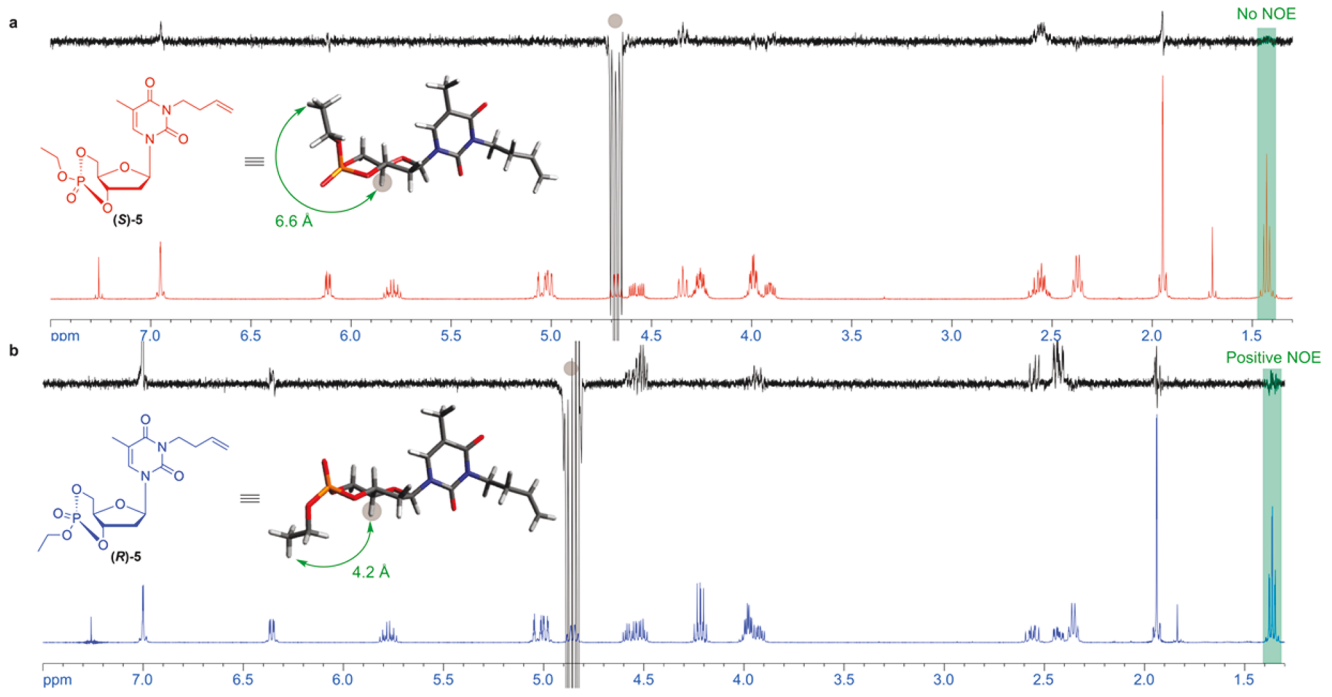

Figure 3. Use of 1D-NOESY to identify the diastereomers (a) (*S*)-**5** and (b) (*R*)-**5**, with atomic distances of 6.6 and 4.2 Å, respectively, calculated from DFT geometric optimization at the B3LYP/6-31+G* level of theory.

■ ASSOCIATED CONTENT

Supporting Information

The Supporting Information is available free of charge on the ACS Publications website at DOI: 10.1021/jacs.8b01661.

Experimental procedures, spectroscopic data for all new compounds including ^{1}H, ^{13}C, and ^{31}P NMR spectra, TGA, DSC, and details of computational chemistry (PDF)

■ ACKNOWLEDGMENTS

We thank Yelena Lipskerova of Chemical Abstracts Service for drawing our attention to the mistakes in the stereochemical assignments of the chemical structures.

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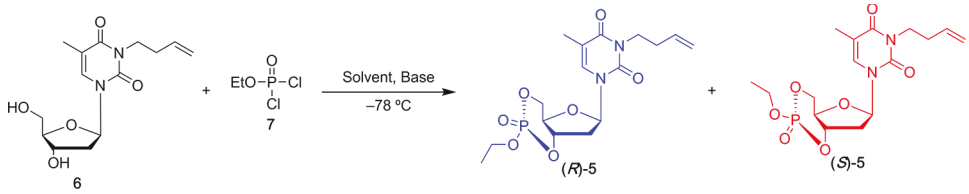
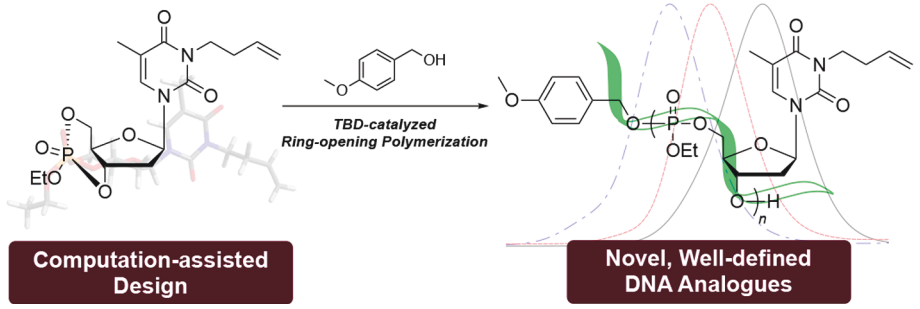
Table 2. Condition Screening for Cyclization of 6 with 7 Using Various Solvents and Bases at −78 °C



entry	solvent	base	result	yield (%)	$(R)/(S)^a$
1	THF	Et_3N	oligomerization		
2	THF	pyridine	oligomerization		
3	THF	DMAP	oligomerization		
4	THF	DIPEA	oligomerization		
5	DMF	Et_3N	oligomerization		
6	DMF	pyridine	oligomerization		
7	DMF	DMAP	oligomerization		
8	DMF	DIPEA	oligomerization		
9	CH_2Cl_2	Et_3N	no reaction		
10	CH_2Cl_2	pyridine	no reaction		
11	CH_2Cl_2	DMAP	cyclization	58	88:12
12	CH_2Cl_2	DIPEA	cyclization	4	8:92

[a]The $(R)/(S)$ ratio was determined by ^{31}P NMR of reaction crude.



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