FAQ: I understand why the number of Cs is reducing on the forward half-strand but why why the number of Gs is reducing on the reverse half-strand?

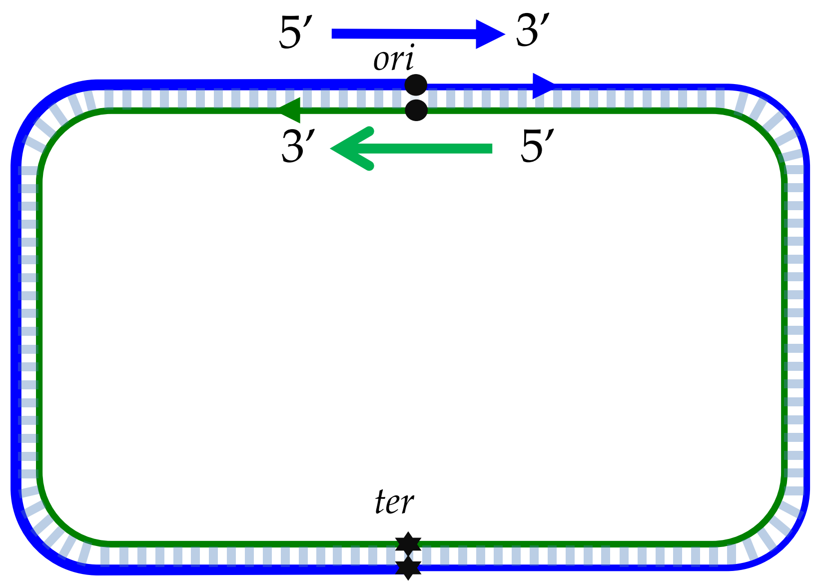

Figure 1. Circular double-stranded DNA

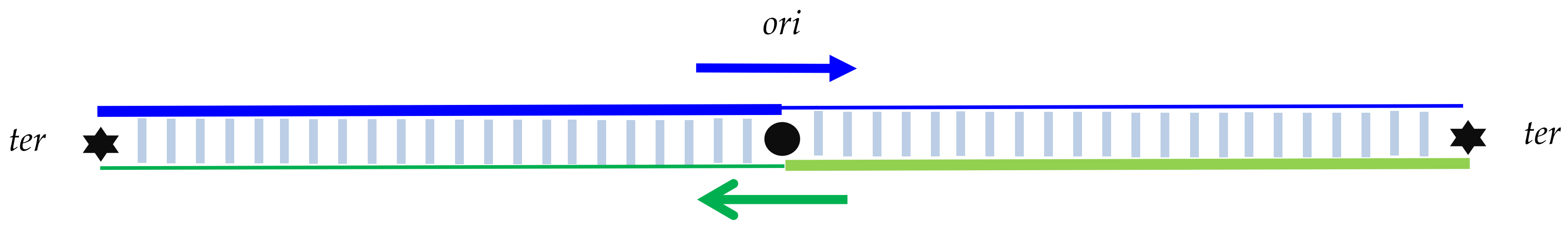

Figure 2. Circular double-stranded DNA cut at *ter* and represented as linear double-stranded DNA.

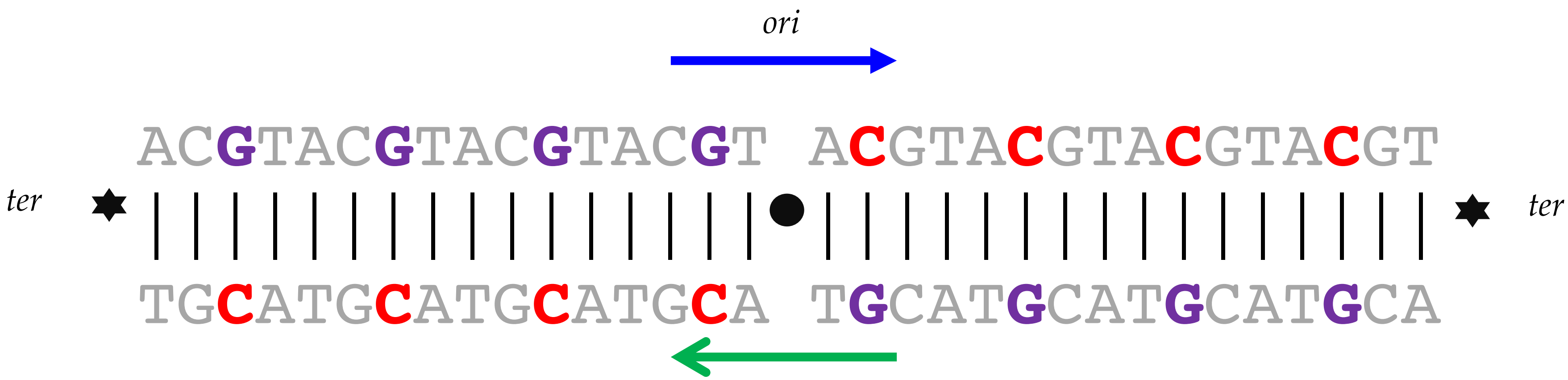

Figure 3. Circular double-stranded DNA cut at *ter* and represented as linear sequence of nucleotides.

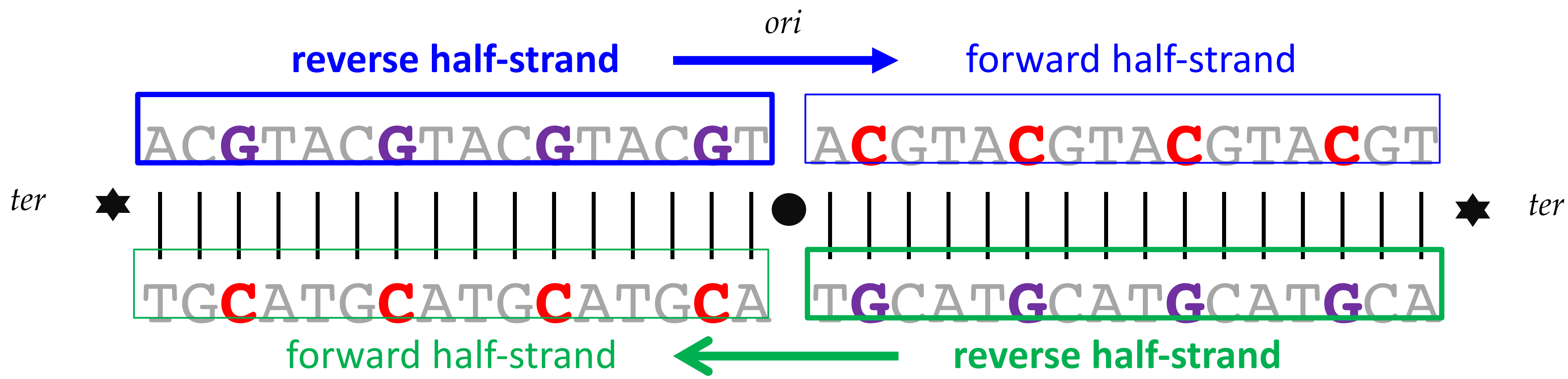

Figure 4. Circular double-stranded DNA cut at *ter* and represented as linear sequence of nucleotides along with boxes showing forward and reverse half-strands.

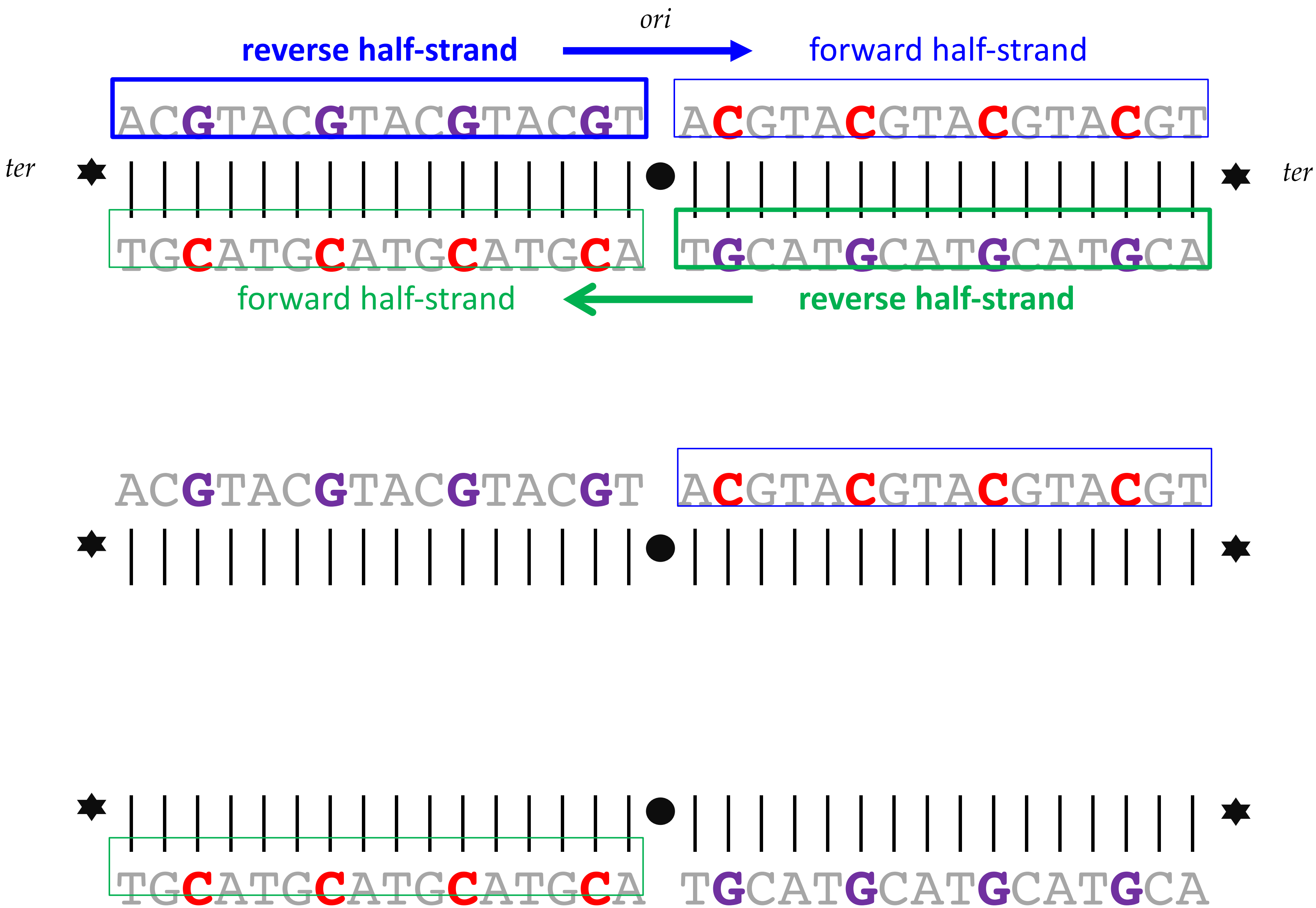

Figure 5. (Top) Circular double-stranded DNA cut at *ter* and represented as linear sequence of nucleotides. (Bottom) Separate representation of forward and reverse strands. Nucleotides **C** in *forward-half strands* (shown in boxes) are primary candidates for deamination.

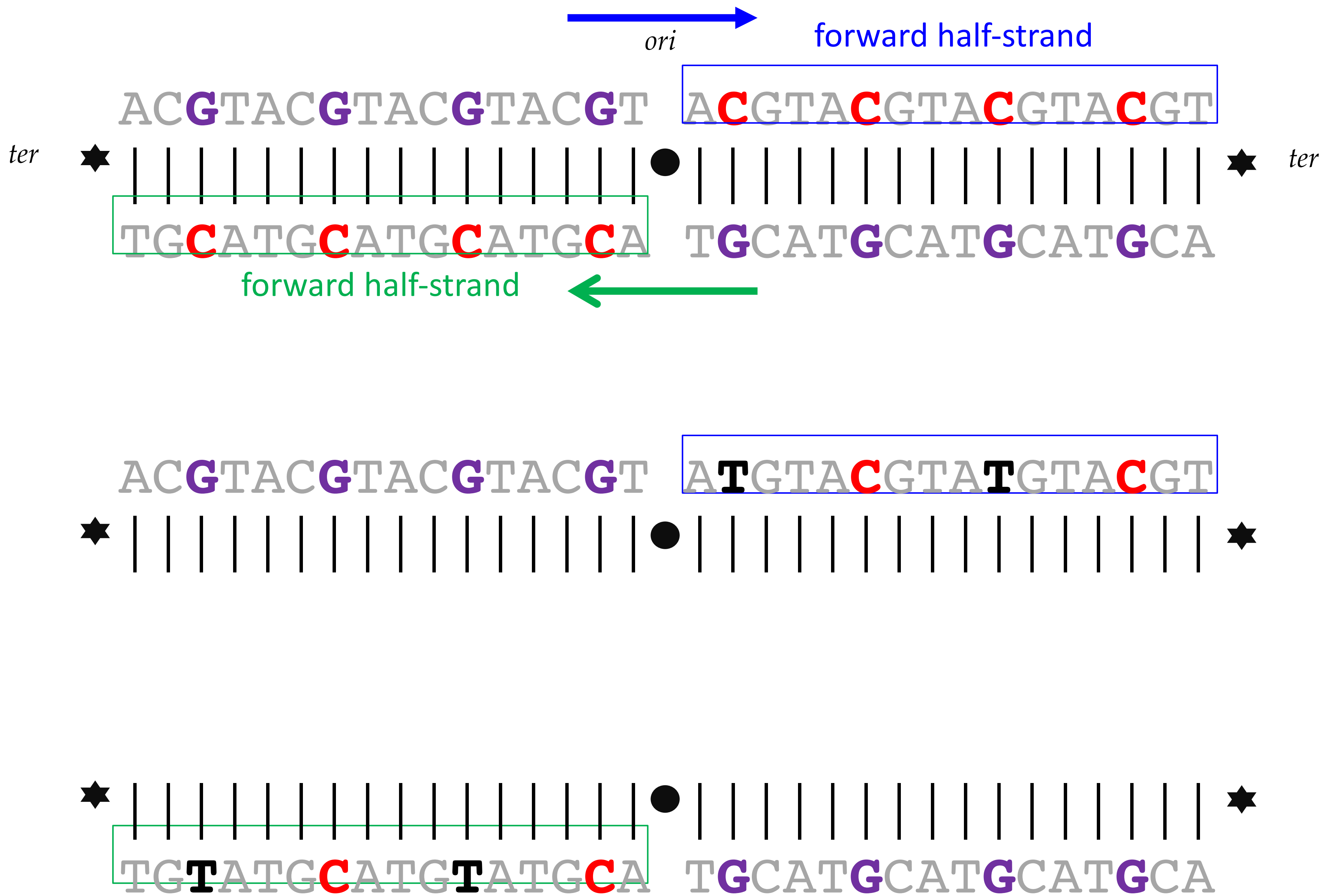

Figure 6. (Top) Circular double-stranded DNA cut at *ter* and represented as linear sequence of nucleotides. (Bottom) Deamination results in mutations that change some of nucleotides **C** in the *forward-half strands* (shown in boxes) into **T** thus reducing the number of **C**s.

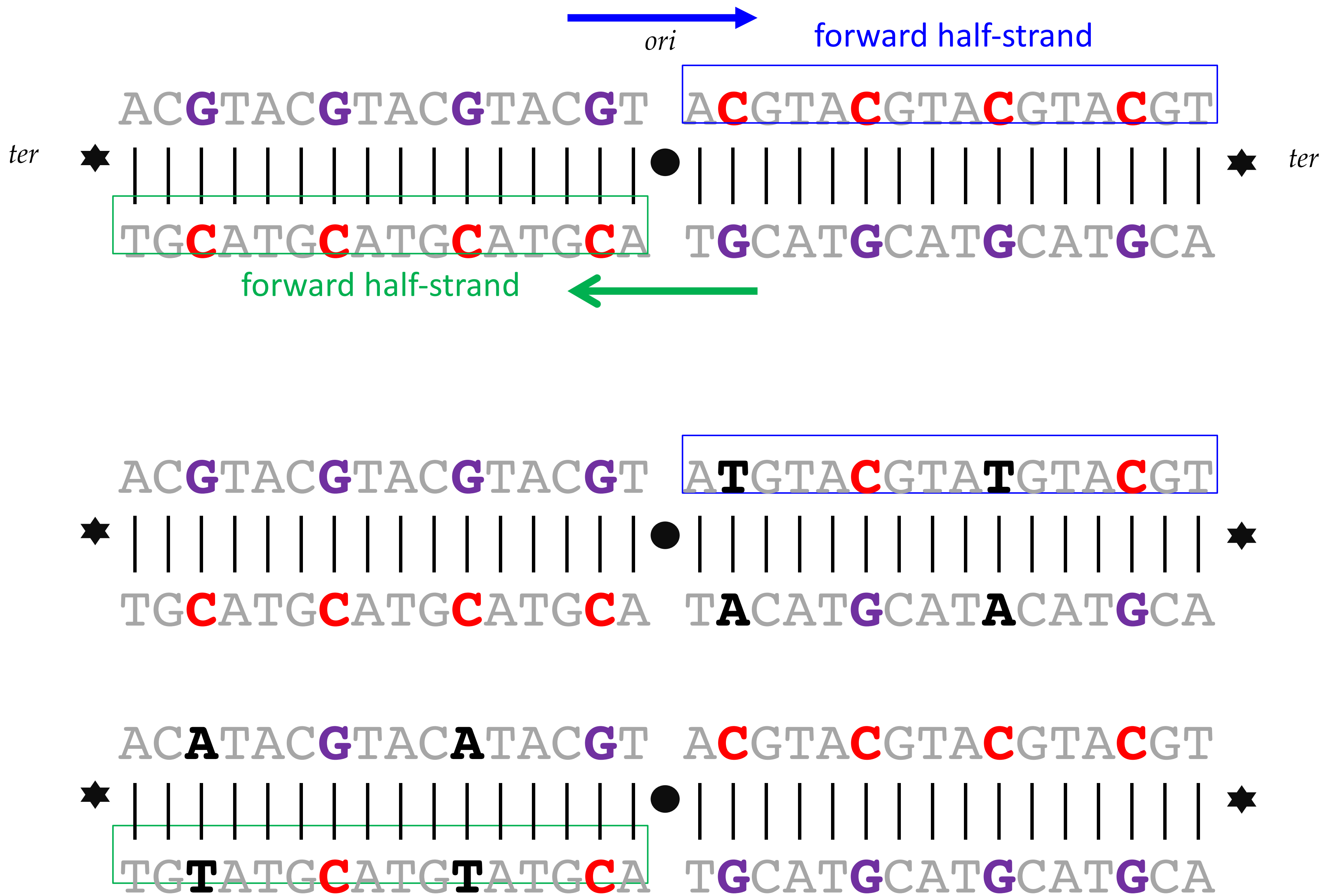

Figure 7. (Top) Circular double-stranded DNA is cut at *terC* and represented as linear sequence of nucleotides. (Bottom) After replication, deaminated residues (that mutated into **T**) pair with **A** on *reverse-half strands* resulting in reducing the number of **G**s on reverse half-stands.

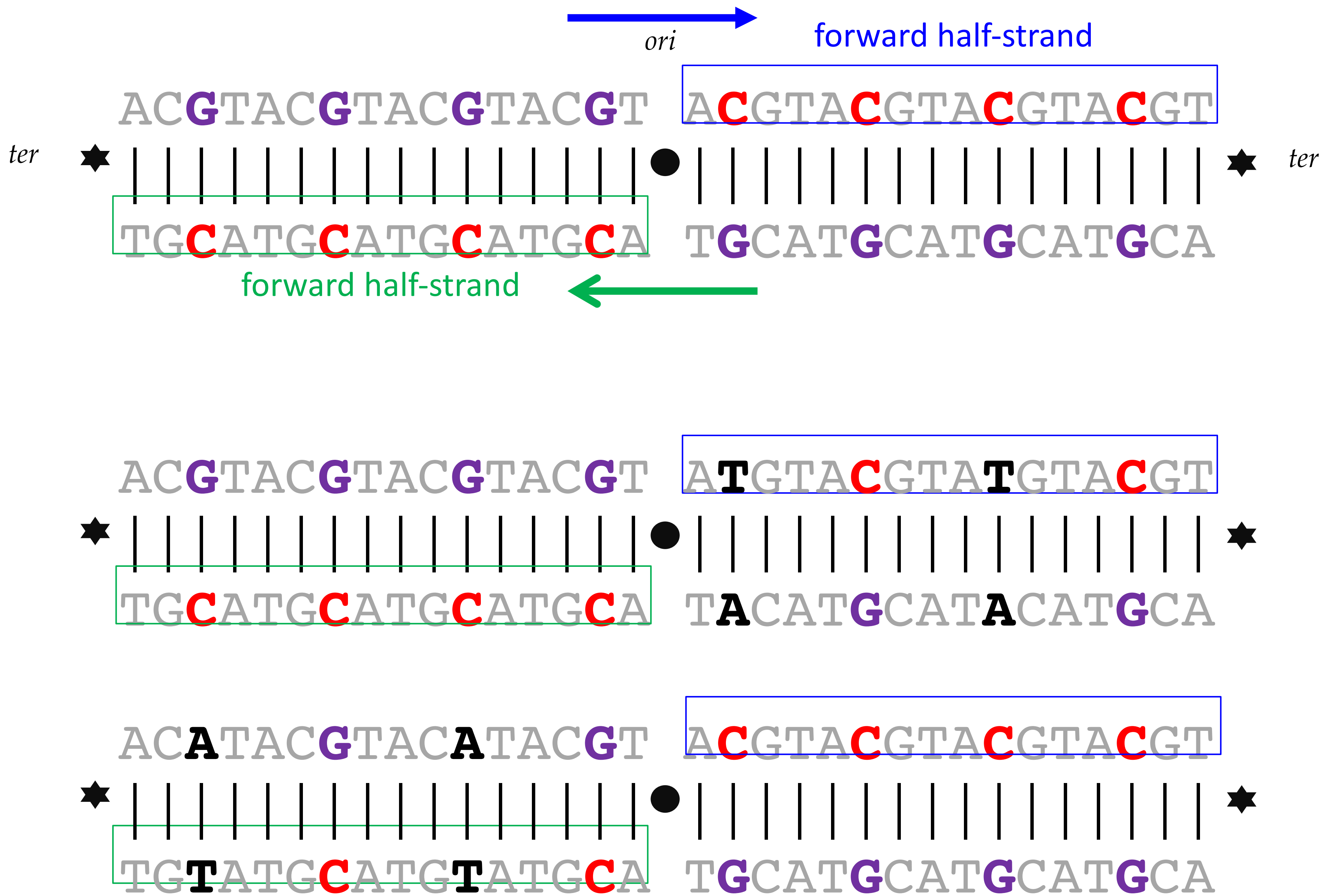

Figure 8. (Top) Circular double-stranded DNA is cut at *ter* and represented as linear sequence of nucleotides. (Bottom) The total number of C in forward half-strands has reduced.

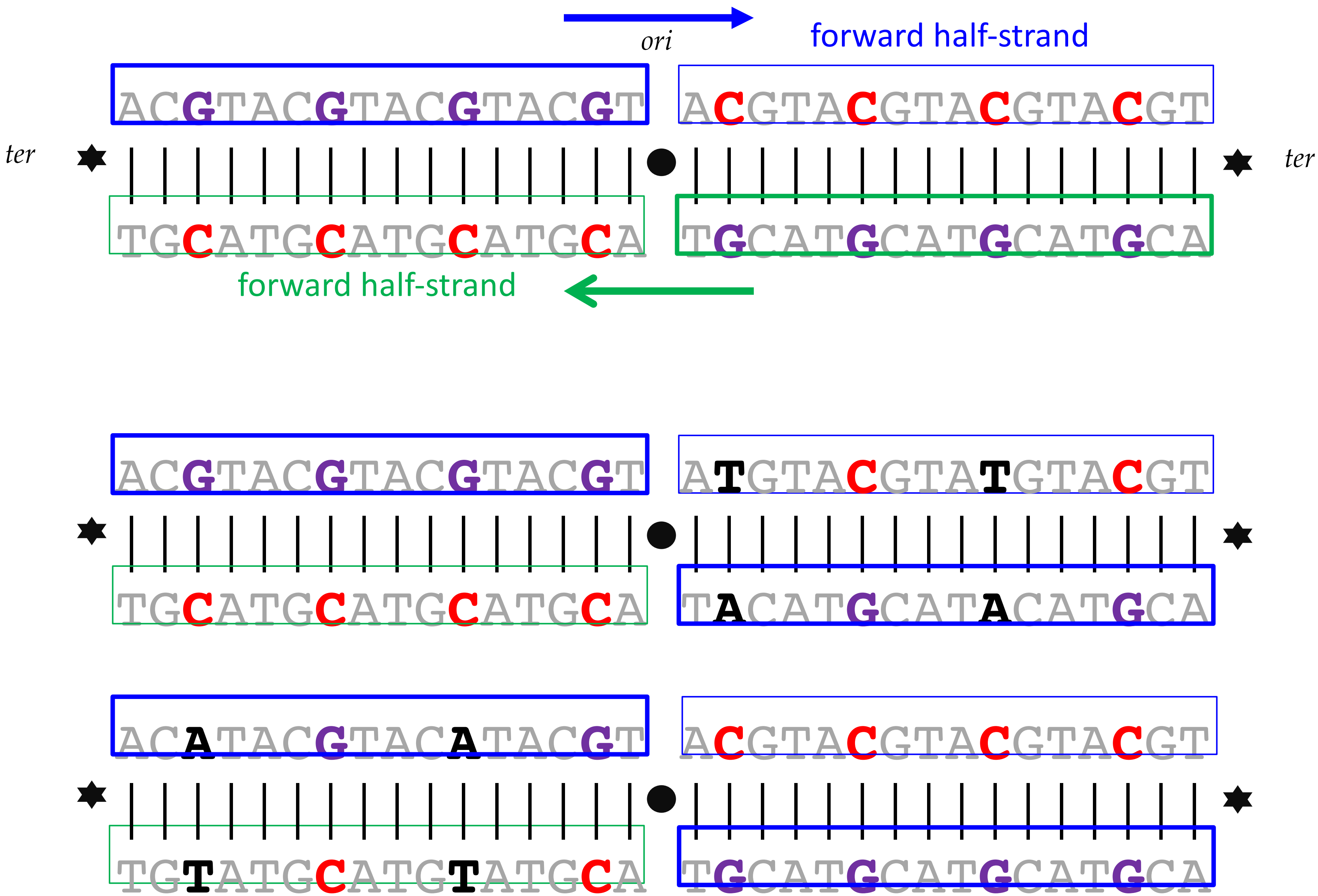

Figure 9. (Top) Circular double-stranded DNA is cut at *ter* and represented as linear sequence of nucleotides. (Bottom) The total number of **G** in reverse half-strands has reduced.