Examples of Second Order Limit Language

Example 1
Let \( S = \{ A, I, R \} \) be a Y-G splicing system consisting of two restriction enzymes namely Fadu and ActI, where \( A = \{ a, c, g, t \} \), \( I = \{ \text{AAGATTC}, \text{GCGGCCG} \} \) such that \( \alpha, \beta \in A^* \) and \( R = \{ \text{A}, \text{I}, \text{R}, \text{u}, \text{x} \} \) where \( \text{u} = \text{GCGGCCG} \) and \( \text{x} = \text{AAGATTC} \).

The following are the splicing languages after the first splicing has taken place,

\[
\text{I} - \{ \text{AAGATTC, GCGGCCG, AAGATTC, GCGGCCG} \}
\]

The second order limit language are

\[
\{ \text{AAGATTC, GCGGCCG, AAGATTC, GCGGCCG} \}
\]

Example 2
Let \( S = \{ A, I, R \} \) be a Y-G splicing system consisting of a restriction enzyme namely Mbol, where \( A = \{ a, c, g, t \} \), \( I = \{ \text{AAGATTC, GCGGCCG} \} \) which consists of two recognition sites of the restriction enzyme and \( R = \{ \text{A}, \text{I}, \text{R}, \text{u}, \text{x} \} \) where \( \text{u} = \text{GCGGCCG} \) and \( \text{x} = \text{AAGATTC} \).

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References