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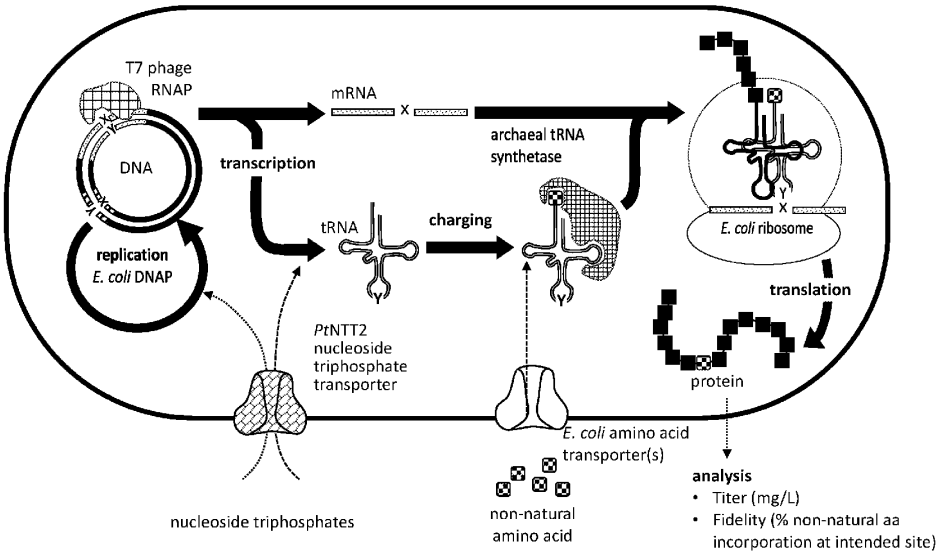


FIG. 31

(57) Abstract: Provided herein are synthetic tRNA synthetases and cells comprising synthetic molecules that may be used for producing polypeptides comprising one or more unnatural amino acids.

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WO 2025/207517 A3

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