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(54) **Title:** LIGHT-ACTIVATED COUPLING OF OLIGONUCLEOTIDES TO POLYMERS

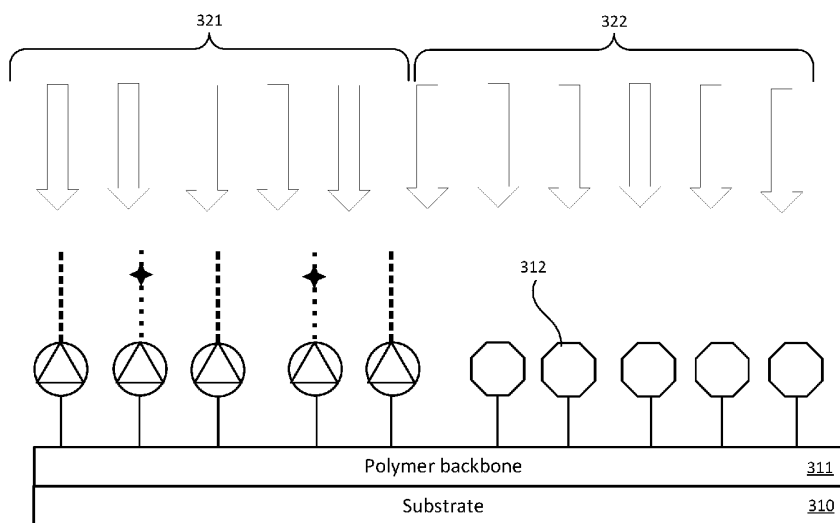


FIG. 3E

(57) **Abstract:** Provided herein are various examples of a method of coupling oligonucleotides to a polymer. The method may include selectively irradiating first inactive moieties in a one or more first region of a polymer with light, while not irradiating second inactive moieties in a one or more second region of the polymer, to generate first active moieties in the one or more first region of the polymer. The method may also include coupling the first active moieties to first oligonucleotides. The method may further include irradiating the second inactive moieties in the one or more second region of the polymer with light to generate second active moieties in the one or more second region of the polymer. The method may also include coupling the second active moieties to second oligonucleotides.

[Continued on next page]

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