

(12) **United States Patent**  
**Ju et al.**

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(54) **MASSIVE PARALLEL METHOD FOR DECODING DNA AND RNA**

(58) **Field of Classification Search** ..... 536/23.1, 536/24.3, 25.3, 26.6; 435/6  
See application file for complete search history.

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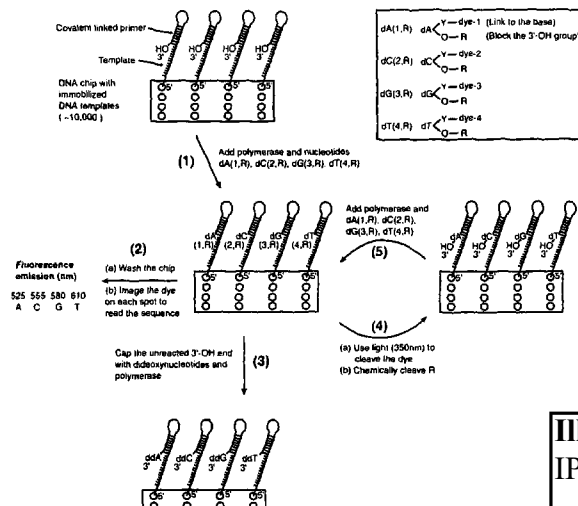
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**ABSTRACT**

This invention provides methods for attaching a nucleic acid to a solid surface and for sequencing nucleic acid by detecting the identity of each nucleotide analogue after the nucleotide analogue is incorporated into a growing strand of DNA in a polymerase reaction. The invention also provides nucleotide analogues which comprise unique labels attached to the nucleotide analogue through a cleavable linker, and a cleavable chemical group to cap the —OH group at the 3'-position of the deoxyribose.

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