

39. The method of any one of claims 37 through 38, wherein the different primer extension products are simultaneously present during the detecting in (c).
- 5 40. The method of any one of claims 37 through 39, wherein the first of the different reversible blocking moieties and the second of the different reversible blocking moieties are simultaneously present on the primer extension products during the removing in (d).
- 10 41. The method of claim 37, wherein a first of the primers that is hybridized to a first of the different nucleic acid templates is removed from the array of sites prior to the extending of a second of the primers that is hybridized to a second of the different nucleic acid templates.
- 15 42. The method of claim 37, wherein a first of the different primer extension products is removed from the array of sites prior to the detecting of a second of the different primer extension products.
- 20 43. The method of claim 37, wherein a first of the different primer extension products is removed from the array of sites prior to the second treatment.
44. The method of any one of claims 37-43, wherein (c) is carried out after (d).
- 25 45. The method of any one of claims 37-44, wherein the detecting uses a detector having a spatial resolution that is too low to resolve points at distance equivalent to the spacing between the different primer extension products at each of the sites.

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77. The nucleic acid array of any one of claims 62-76, wherein the first primer comprises a first universal primer sequence and the first nucleic acid template at each site in the plurality of sites comprises a first universal primer binding sequence that is complementary to the first universal primer sequence.

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78. The nucleic acid array of claim 77, wherein the second primer comprises a second universal primer sequence and the second nucleic acid template at each site in the plurality of sites comprises a second universal primer binding sequence that is complementary to the second universal primer sequence, wherein the first universal primer binding sequence is different from the second universal primer binding sequence.

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79. The nucleic acid array of any one of claims 62-78, wherein a first polymerase is bound to the first primer and the first nucleic acid template.

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80. The nucleic acid array of claim 79, wherein a second polymerase is bound to the second primer and the second nucleic acid template, and wherein the first polymerase and second polymerase are the same species of polymerase.

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81. The nucleic acid array of any one of claims 62-80, wherein the first reversible blocking moiety comprises azidomethyl and wherein the second reversible blocking moiety comprises tert-butoxy-ethoxy.

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82. A detection apparatus, comprising the nucleic acid array of any one of claims 62-81, and a detector positioned to detect the plurality of sites, wherein said detector is capable of detecting a label moiety attached to a nucleotide or nucleotide analog.

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83. The detection apparatus of claim 82, wherein the detector has a spatial resolution that is too low to resolve points at distance equivalent to the spacing between the first primer and the second primer at each of the sites.