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(54) Title: POLYNUCLEOTIDE ARRAYS AND THEIR USE IN SEQUENCING

(57) Abstract: A device for use in polynucleotide sequencing procedures comprises an array of polynucleotide molecules capable of interrogation and immobilised on a solid surface, wherein the array has a density which allows the molecules to be individually resolved. The molecules on the array comprise a target polynucleotide and a primer sequence, the primer being maintained in spatial relationship to the target, both being linked via a covalent bond. The device may be used in genotyping experiments, in which an array of genomic DNA is prepared to allow multiple sequencing reactions to be performed.