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(54) Title: METHODS AND COMPOSITIONS FOR ANALYTE DETECTION

(57) Abstract: In some aspects, the present disclosure relates to methods for reducing the crowding of signals, for example optical crowding, that can occur when nucleic acids are detected in a sample in multiplex, which can make it difficult to resolve individual signals and can lead to a reduced dynamic range. In some aspects, the present disclosure relates to methods for reducing signal crowding in the detection of multiple target nucleic acid sequences in a sample, e.g., using hybridization probes, wherein signal crowding from said hybridization probes is reduced. The methods herein have particular applicability in the detection of barcode sequences by sequencing-by-hybridization (SBH) methods, including those relying on combinatorial labelling schemes and decoding of the barcodes by sequential cycles of decoding using hybridization probes. Also provided are kits comprising probes for use in such methods.



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