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(54) Title: SEQUENCING A POLYMER MOLECULE

(57) Abstract: A method for sequencing a target polymer molecule comprises the steps of: (i) treating the target polymer with an agent that degrades sequentially at lust one end of the target polymer; (ii) converting at least a portion of the degraded end of different degraded polymers into a readable signal sequence, and labelling each of said degraded polymers with a tag that represents the relative order of degradation; (iii) determining the sequence of the readable signal sequence; and (iv) determining the sequence of the target polymer using the sequence data obtained in step (iii) and the identification of each associated tag.