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(54) Title: RAMAN ANALYSIS SYSTEM FOR OLEFIN POLYMERIZATION CONTROL

(57) Abstract: Method of olefin polymerization in a reactor, such as a slurry loop olefin polymerization reactor, is provided. The method includes conducting in-situ, real time spectroscopic analysis of one or more reactor constituents. The reactor constituents analyzed may be present in the reactor in either the liquid phase or the solid phase, or both. In response to the measured in-situ values, one or more reactor constituents may be metered into the reactor.