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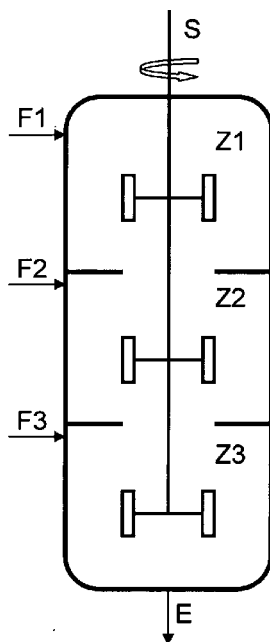
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(54) Title: POLYMERIZATION PROCESSES FOR BROADENED MOLECULAR WEIGHT DISTRIBUTION

FIGURE 4



(57) Abstract: Provided are methods of producing polymers with broadened molecular weight and/or composition distribution in a continuous homogeneous polymerization system utilizing reactor temperature gradients, reactor polymer concentration gradients, monomer concentration gradients, catalyst concentration gradients, and combinations thereof in the polymerization reactor. Such methods are particularly suitable when utilizing metallocene catalysts and other single-site catalysts, which generally produce polymers with narrow molecular weight and composition distribution.



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