Linear gradient copolymers exhibit a gradual linear shift in the monomer composition from one chain end to the other:

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**Model Based Determination of Linear Gradient Quality of ATRP Copolymers**

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**Conventional simulation: Average polymer properties**

### Chemical composition – chain length distribution

**Dormant polymer**

**Dead polymer**

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**Kinetic Monte Carlo (kMC) simulation flow sheet**

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**Linear Gradient quality (x\(_m\))**

**Dormant polymer**

**Dead polymer**

**Importance of reactivity ratios**

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**Graindation evaluation**

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**Catalyst choice for optimal gradient quality**

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