

**In-line fluorescence and ultrasonic determination of residence
time distribution during twin screw extrusion**

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Residence time distribution (RTD) can affect product quality, degree of mixing,
extent of degradation and extent of chemical reaction. The application of

ultrasonic and fluorescence techniques for in-line determination of RTD in a
corotating twin-screw extruder are described. Effects of feed rate and screw
speed

are considered and the advantages and disadvantages of each technique discussed.