

## RESEARCH NOTES

加压下填料塔中液相轴向反混的研究

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**摘要** Liquid phase axial mixing was measured with the tracer technique in a packed column with

innerdiameter of 0.15 m, in which the structured packing, Mellapak 350Y, was installed. Tap water as the liquid phase flowed down through the column and stagnant gas was at elevated

pressure ranging from atmospheric to 2.0 MPa. The model parameters of  $Bo$  and  $\theta$  were estimated with the least square method in the time domain. As liquid flowrate was increased, the liquid axial mixing decreased. Under our experimental conditions, the effect of pressure on  $Bo$  number on single liquid phase was negligible, and eddy diffusion was believed to be the primary cause of axial mixing in liquid phase.

**关键词** [axial mixing](#) [eddy diffusion](#) [elevated pressure](#) [structured packing](#)

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### Liquid Axial Mixing in Packed Tower at Elevated Pressure

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**Abstract** Liquid phase axial mixing was measured with the tracer technique in a packed column with innerdiameter of 0.15 m, in which the structured packing, Mellapak 350Y, was installed. Tap water as the liquid phase flowed down through the column and stagnant gas was at elevated pressure ranging from atmospheric to 2.0 MPa. The model parameters of  $Bo$  and  $\theta$  were estimated with the least square method in the time domain. As liquid flowrate was increased, the liquid axial mixing decreased. Under our experimental conditions, the effect of pressure on  $Bo$  number on single liquid phase was negligible, and eddy diffusion was believed to be the primary cause of axial mixing in liquid phase.

**Key words** [axial mixing](#); [eddy diffusion](#); [elevated pressure](#); [structured packing](#)

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