

### Liquid distribution model for a structured packed column

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_\*

(kslee@sogang.ac.kr\*)

Absorption process is one of the most widely used process for gas separation. Especially, a packed column equipped with structured or random packing has been intensively employed. Although the structured packing are more costly than random packing, it has less pressure drop, higher mass transfer efficiency and capacity. There are many types of structured packing such as corrugated sheet packing, gauze type and grid type. The structured packing of corrugated sheets like Mellapak series are widely used in many industrial gas devices. Because their performances much depend on the liquid distribution in the column. research and understanding of the liquid distribution in structured packed column have to be intensively performed. In this paper, we developed the liquid distribution model for the corrugated sheets type structured packing. With packing geometry and bed dimensions, the model can predict the liquid distribution in three dimensional space in the column. By constructing the intersections and determining flow types at the nodes, the liquid distribution can be fairly estimated. The wall effect that deteriorates the liquid distribution in the column was also considered and investigated.