# Off-flavor Removal and Oil Extraction from Raw Anchovy by Supercritical Carbon Dioxide

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Supercritical fluids have a higher diffusion coefficient and lower viscosity than liquids. And absence of surface tension allows for their rapid penetration into the pores of heterogeneous matrices, which helps enhance extraction efficiencies. Selectivity during extraction may be manipulated by varying the conditions of temperature and pressure affecting the solubility of the various components in the supercritical fluid. Also supercritical fluid extraction does not leave a chemical residue and can use carbon dioxide gas, which can be recycled and used again as part of the unit operation.

In general, the anchovy consists of lipids, proteins, off-flavor etc.. Therefore oil extraction and reducing off-flavor technologies are important and valuable.

The sample used in this work was raw and extraction of oil from anchovy by supercritical carbon dioxide and performed in a semi-batch flow extractor experiments were conducted at various operating conditions(pressure range 247~253 bar, temperature range 35~45℃, particle size 710 ㎛, extraction time 60 minutes, $CO_2$ flow rate 3mL/min).