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超临界二氧化碳流体萃取设备
SUPERCRITICAL CO₂ FLUID EXTRACTION EQUIPMENT

关于超临界萃取技术： ABOUT SUPERCRITICAL FLUID EXTRACTION TECHNOLOGY:



超临界CO₂流体萃取技术是当今世界最先进的绿色、环境友好型提取分离技术，可广泛应用于食品、医药、保健品、化妆品、新材料、生物农药等领域。

超临界流体萃取（SFE）以超临界流体为萃取溶剂，将萃取物从原料中分离出来。处于临界状态的流体既具有液体的流动性，又具有气体的渗透性和扩散性，对物质具有很强的溶解能力。CO₂是应用最为广泛的超临界流体介质。

Supercritical CO₂ fluid extraction technology is an advanced environment-friendly extraction method and widely used in many industries, including food, medicine, health products, cosmetics, new materials, biopesticide, etc.

Supercritical Fluid Extraction (SFE) is the process of separating one component (the extractant) from another (the matrix) using supercritical fluids as the extracting solvent. supercritical fluids have properties between those of a gas and a liquid, which can dissolve materials like a liquid, and effuse through solids like a gas. Carbon dioxide (CO₂) is the most used supercritical fluid.

超临界萃取技术装备： SFE EQUIPMENT:



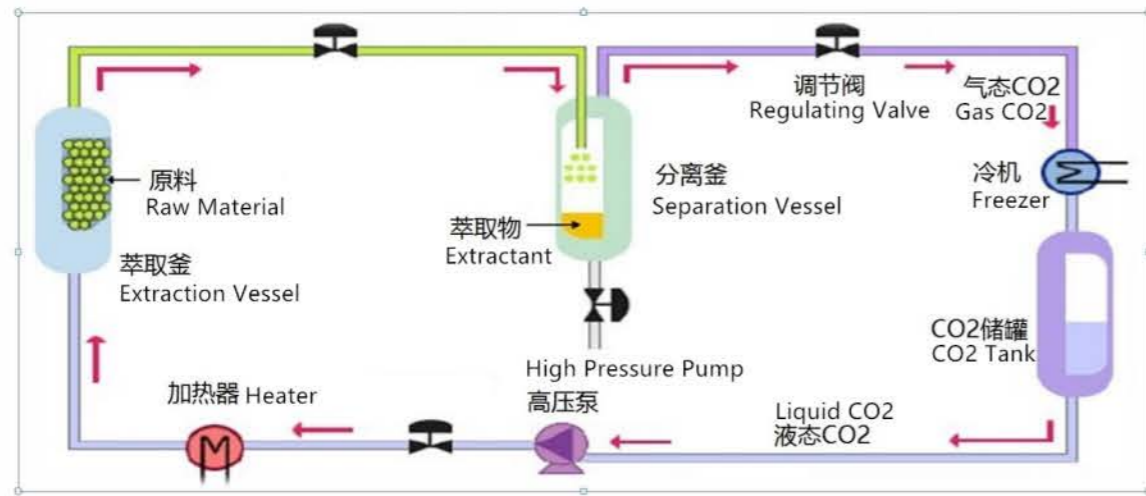
超临界CO₂萃取装备是实现CO₂在气态、液态和超临界态之间相互转换，达到物质提取和分离工艺要求的高压系统设备。

通过CO₂温度、压力、流量的改变实现对目标产物的提取和分离，整个过程全自动控制。

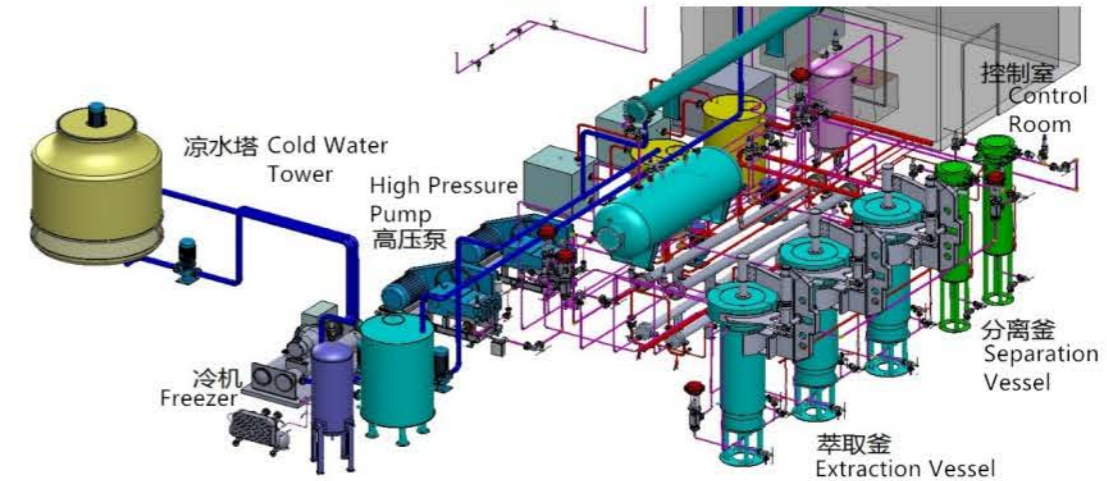
Supercritical CO₂ fluid extraction equipment is a kind of high pressure mechanical system, which could extract and separate substance by changing CO₂'s state between gas, liquid and supercritical state.

Our equipment is under fully automatic control during the extraction and separation of target substance by changing the temperature, pressure and flowrate of CO₂.

工作流程： SCHEMATIC DIAGRAM OF SFE APPARATUS:



生产线3D效果图： GENERAL 3D LAYOUT OF SFE PRODUCTION LINE:



设备主要技术指标： SFE KEY TECHNICAL PARAMETERS:

设备规格 Specification :	三萃两分, 萃取釜容积1L-5000L 3 extraction vessels and 2 separation vessels; Extraction vessel volume: 1~5000L
压力范围 Pressure Range :	0-55MPa
温度范围 Temperature Range :	10~80°C
控制方式 Control Method :	自动控制, 压力精度 ±0.1MPa, 温度精度±1°C Fully automatic; Pressure accuracy: ±0.1MPa; Temperature accuracy: ±1°C.

超临界萃取优点： SFE ADVANTAGES :

- 01 不用有机溶剂, 对提取物无污染
No organic solvent is used and no pollution to extractant.
- 02 提取物高选择性, 物质高度富集
High selectivity on target substance and highly-concentrated extractant could be obtained.
- 03 低温操作, 不会破坏天然活性成分
Extraction in low temperature condition does not destroy natural active ingredients.
- 04 提取物和CO2易于分离
Easy to separate extractant and CO2.
- 05 无三废排放 (废气, 废渣, 废水)
No waste discharge.

