



## COMERG's ABSTRACT

**Title of the abstract:** Comerg's PURE 5™ innovative aroma recovery technology for extraction and separation of cannabinoids together with the terpenes utilizing liquefied gas.

**Text:** COMERG is the most innovative extraction technology company. It specializes in manufacturing custom botanical extraction and purification systems. The company is dedicated to developing natural extraction technologies causing no degradation to the extracted substances. In the current abstract, a PURE 5™ system utilizing low-pressure Liquefied Gas Extraction Technology (LPE) will be presented as best for extraction of aromas and flavours. The solution is safer, cheaper, faster and delivers higher quality end products than the currently popular steam, CO<sub>2</sub> and ethanol extraction technologies. The company owns the IP, know-how and the global exclusive rights to the application of the low-Pressure Extraction. This solution allows extraction of dry, fresh, and frozen plants and other organic substances.

The extraction method produces higher yield in a shorter time in extracting aromas than any other conventional method. The process uses low temperature and low pressure to process the material and it takes a fraction of the energy compared to CO<sub>2</sub>, therefore can handle fragile natural ingredients with little degradation in a very low-cost process.

The plant becomes in contact with the liquified solvent in a subcritical stage. In order for the solvent to dissolve the aroma substances it is pressurized in a sealed extraction chamber. The solvent is very inert and does not come in contact with the substances extracted, the low viscosity allows the solvent to penetrate the plant tissue and extract even the smallest amount of the substance which improves the yield significantly. The process of extraction of the substance is held at "room" temperatures and does not degrade the plant or the constituent.