

Diversified Technologies' New Compound Extraction from Microalgae Utilizes PEF Which Yields a Four-Fold Increase

A patented process using PEF (pulsed electric field) processing for extracting pigments, proteins, and lipids from microalgae has been introduced by Diversified Technologies, Inc. (DTI) of Bedford, MA.

BEDFORD, Mass. ([PRWEB](#)) May 20, 2020 -- [Diversified Technologies, Inc. \(DTI\)](#) has introduced a patented process using PEF (pulsed electric field) processing for extracting pigments, proteins, and lipids from microalgae.

[DTI's Compound Extraction from Microalgae uses PEF](#) for the low cost extraction of phycoerythrin (PE) and phycocyanin (PC), providing high purity extraction without solvents. When treating lipid extraction from *Chlorella vulgaris* high oil biomass with PEF prior to freeze drying, there was a four-fold increase in extracted lipids with hexane and the same for ethanol, compared to untreated samples.

To test the efficacy of using PEF to extract PE, DTI's treated freshwater- adapted *Porphyridium purpurem* at field strengths from 0-39 kV/cm and efficiently released the PE without cell disruption. They used a similar approach to extract PC from *Spirulina platensis* cells, with PC being liberated from cells after treatment with voltages above 10 kV/cm.

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