

# Geladen: Filters for food protein manufacturing

*Charged membranes enabling faster, more efficient, and less wasteful food protein filtration.*



## Mark Etzel

- CEO of Geladen
- Professor Emeritus in Food Engineering
- 31 years expertise in food proteins filter technology

## Market:

The global specialty food proteins market is \$42 billion in 2020 and growing. Annually, there are \$84 million of filtration membranes used by food protein manufacturers. There are currently no membranes available for selective filtration to separate specific proteins from sources such as milk, soy, pea, etc.

## Technology:

The membranes are produced with an applied charge and larger pore sizes. Proteins are retained in the product stream because of charge-charge interactions with the membrane while waste passes at a faster rate because of the larger pore size.

## IP and Stage:

3 filed patents (1 issued). Piloted in dairy food protein manufacturing plant

## Impact:

The charged ultrafiltration membranes enable 5X faster filtration, less wasted proteins, lower energy and water usage, and no required changes to existing manufacturing infrastructure, equipment, or workflow. These membranes are also the first to support selective protein filtration using the existing low-cost production methods, enabling current manufacturers to produce high value proteins such as those needed for humanized infant formula.

## Ask:

Introduction to food protein manufacturers

## More information:

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