

COMMERCIALISATION OFFER

A HIGHLY EFFICIENT METHOD OF PROTEIN RECOVERY

This novel method of protein extraction from solid animal proteinaceous material, based on sequential isoelectric solubilisation resulting significantly high total protein recovery yields (up to 95% achieved in selected fish by-products). This presents an opportunity for fish, meat and plant processing companies to generate alternative product streams with higher value add.



VALUE PROPOSITION

OPPORTUNITY



Existing methods for protein recovery, include enzymatic extraction, single step/conventional isoelectric solubilisation precipitation (ISP), ultrasound (US), pulse electric field (PEF) and microwave assisted extraction. While ISP technology allows rapid recovery of proteins, it results in a low yield as the method is unable to recover all available protein in raw material. To date, ISP alone only retrieves in the range of 40%–80% of total available protein. As a result, most products are of low value. The Solution This novel method involves the use of an improved sequential extraction process based on ISP to utilize this raw waste by-products, allowing recovery of the available protein when processing raw animal material. After the first protein extraction of raw materials, the remaining precipitate is subjected to a second extraction process after pH shifting to extract remaining protein. Applying this method (see Figure) showed recovery of 95% of the total protein available, while increased yields have also been obtained for meat co-products, as well as efficient and economical use of reagents when compared to conventional ISP.

Significant increase in protein yield (>95%) over conventional ISP with selected raw materials. 2. Opportunity for animal processing companies to generate alternative product streams with a higher value-add 3. Fast, economical, scalable, and transferable across industry. Adaptable to differential animal (and plant)






DEVELOPMENT STAGE

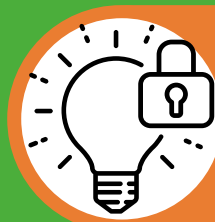
ADVANTAGES



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WANT TO LICENSE

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IP STATUS

Patent application filled(2021)

- EU - GRANTED
- US - Filled

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