Ultrafiltration device for clarification and concentration of enzymes for biotechnological applications

Title of Product/Process/Design/Equipment	Ultrafiltration device for clarification and concentration of enzymes for biotechnological applications
IPR Status Patent/Copyright/Trademark Secured in India/Abroad IPR Details	
Application/Uses	Clarification and concentration of enzymes for biotechnological applications
Salient Technical Features including Competing Features	The cost effective unit is designed based on indigenous ultrafiltration membrane with 100 L/h capacity The technology is compact and involves a combination of two ultrafiltration units where in one unit clarifies the enzyme broth while the other system is used for concentration of enzyme from its broth. The hybrid ultrafiltration unit is highly useful for biotechnological and biomedical laboratories and industries with low operational cost compared to conventional biological plants A 100 L/h capacity hybrid ultrafiltration unit is successfully installed in biology laboratory at JNTU, Hyderabad and is running efficiently since 6 months. The system exhibited high rate of degradation
Level/Scale of Development	Pilot Scale
Environmental Considerations	No environmental issues
Status of Commercialization	The unit is fully commercialized and has been successfully installed in biotechnology laboratory at JNTU, Hyderabad
Major Raw Materials to be Utilized	Prefilters, Membrane Modules
Major Plant Equipment and Machinery Required	Raw Water Pumps, Prefilters, Pressure Vessel (FRP Housing), Pressure Gauges and Rotameters.
Techno-Economics	Ultrafiltration based commercial systems on 100 L/h scale are not available in market for comparison. The unit is made of low cost accessories where in all the parts required for the unit are either in-house fabricated or procured from local markets and no import materials are used.
Technology Package	Available

For further information please contact

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