



Ref. No. CHE-ENR/07/05/2017-18

Date 31.10.17

Notice

Department of chemical engineering

Quotations are invited for the purchase of Electro- Ultrafiltration Bench from the enlisted vendors for the project entitled "optimizing the low power alternating field to minimize concentration polarization/fouling in membrane filtration of whey protein" under the DST WOS-A scheme for the lab of Dr. Debasish Sarkar. Suppliers are hereby requested to submit their quotation including the current trade license, Service Tax Registration certificate with statutory authorities and other credentials within seven days from the publication of this notice in a sealed envelope addressed to the undersigned. The authority reserves the right to accept/reject any quotation without showing any reason thereof.

List and Specification of the items required with Schematic

Name of the setup: Electroultrafiltration bench

Specification of the setup:

1. Electroultrafiltration unit: S.S. Lined 30x15x13 cm<sup>3</sup> teflon crossflow ultrafiltration of effective filtration area of 200cm<sup>2</sup>; Top section fitted with 20cmx10cmx1mm platinum coated titanium anode; bottom part fitted with 20cmx10cmx1mm porous S.S. cathode; Both cathode and anode connected to a variable voltage generator range of 0-120 volt; Frequency modulator range 0-60 Hz; 2 D.C. power source;

2. S.S. Feed tank of capacity of 10 liters; Filtrate vessel of 5 liter; Stirrer of motor speed Rotameter of capacity 10 l.m.p.; Polyurathene pipe of O.D. 1.5 cm; 2 pressure guages range 0-10kg/cm<sup>2</sup> pascal; 6 S.S. globe valve; 1 piston pump of capacity 36 l/min, 960 r.p.m., 28 kg/m<sup>3</sup>.

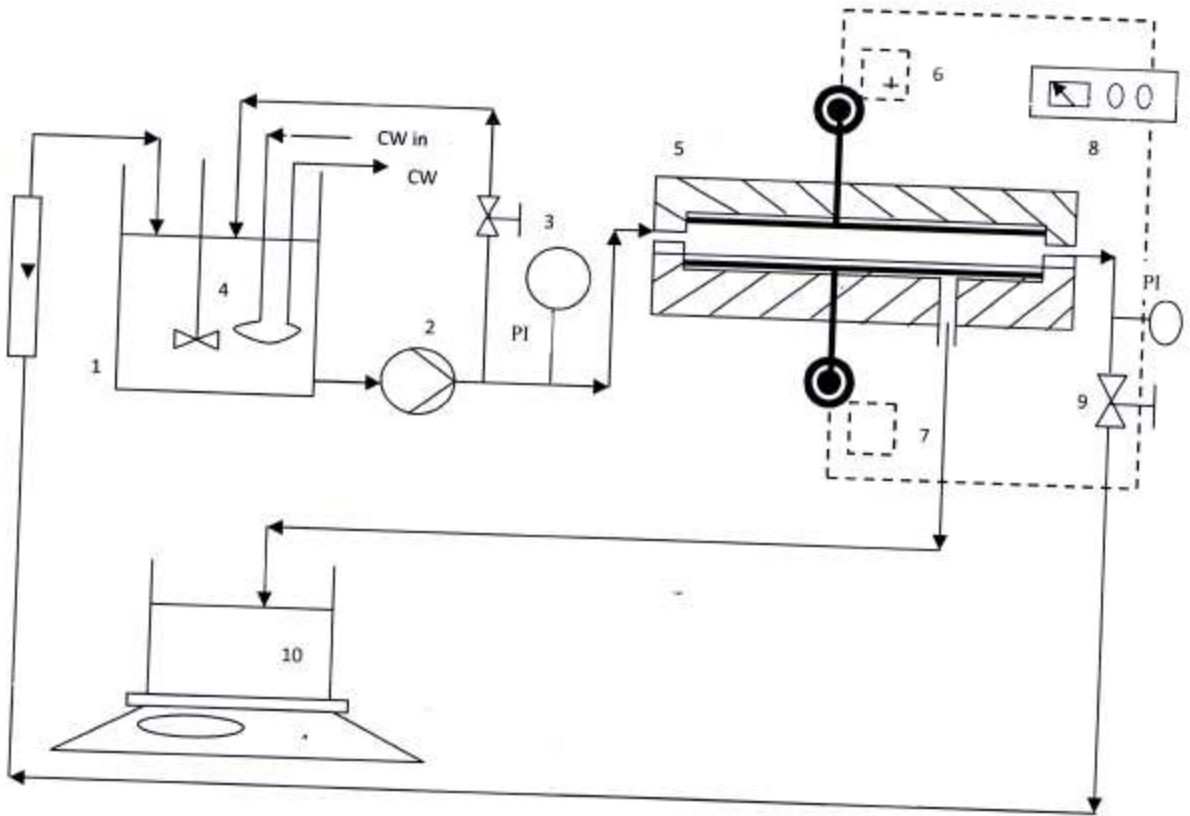
Kalpna Bhowmik  
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3. 1 Wooden Bench fitted with iron stand of  $80 \times 60 \times 100 \text{ cm}^3$ .

Fig 1: Schematic diagram of the filtration bench



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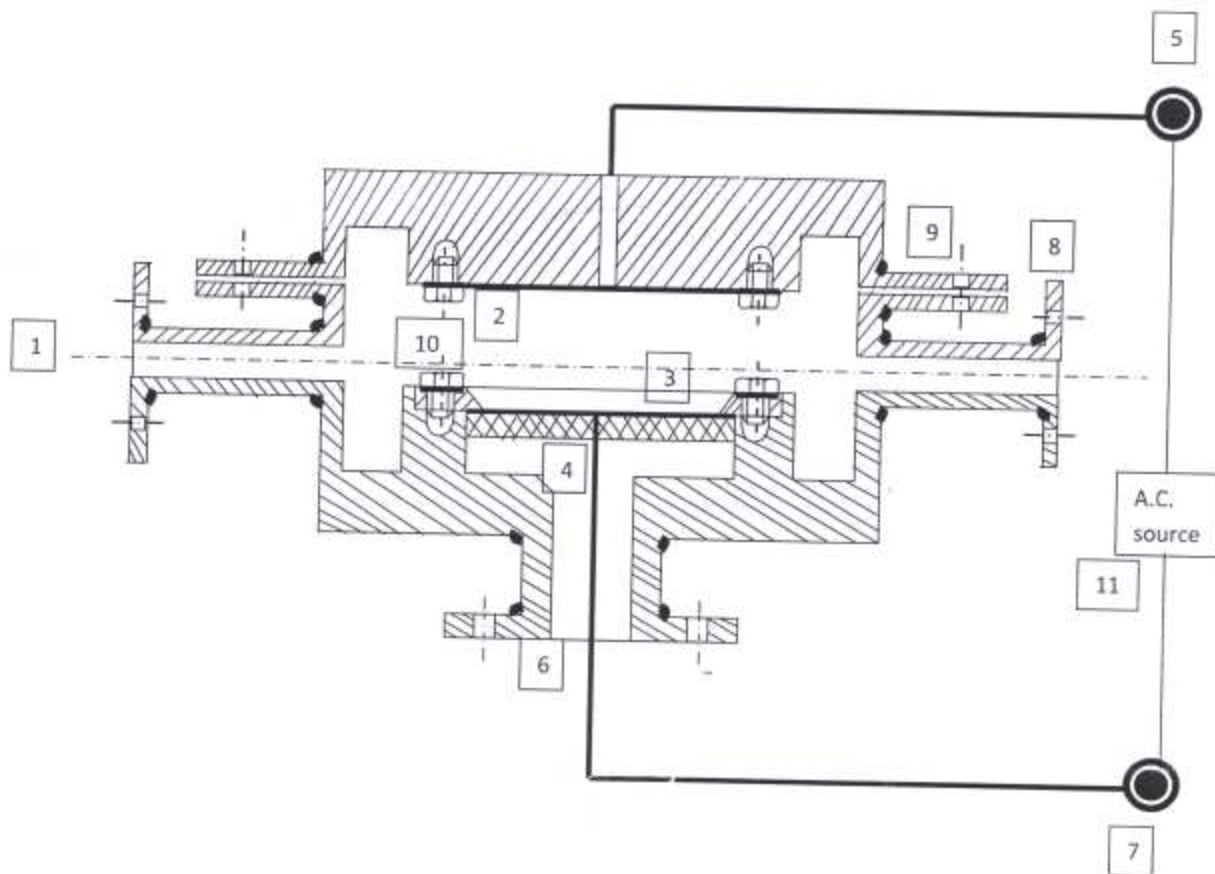
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Figure2: Cut section of electroultrafiltration unit



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