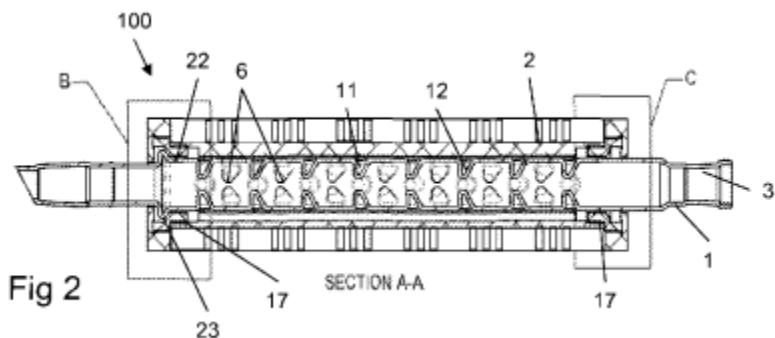


ABSTRACT

Laboratory condensers with passive heat exchange

The present invention relates to a condenser for condensing gasses. The condenser comprises: an inner tube (1) having a bore (3) therethrough; an outer tube (2) having a bore (8) therethrough and two ends, the inner tube (1) passing through the bore of the outer tube (2); and a seal (15, 16) at each end of the outer tube. The outer tube has exterior and interior fins and is sealed to the inner tube so as to define a sealed space (11) between the inner tube and the outer tube. The space (11) is adapted to contain a liquid in contact with the inner tube (1) and the outer tube (2). The invention further relates to a method of condensing a gas using the condenser, a process of making a chemical using the condenser and a kit adapted to be assembled into the condenser. Fig 2.



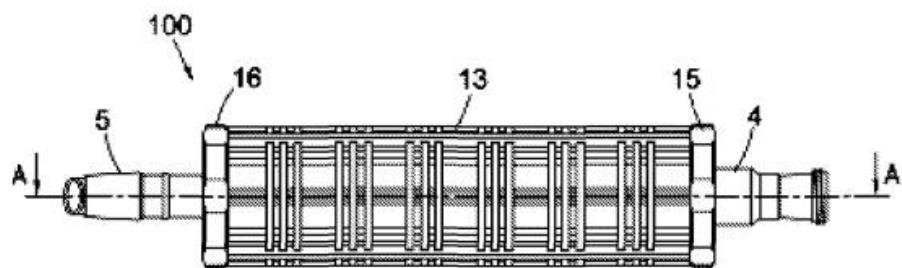


Fig 1

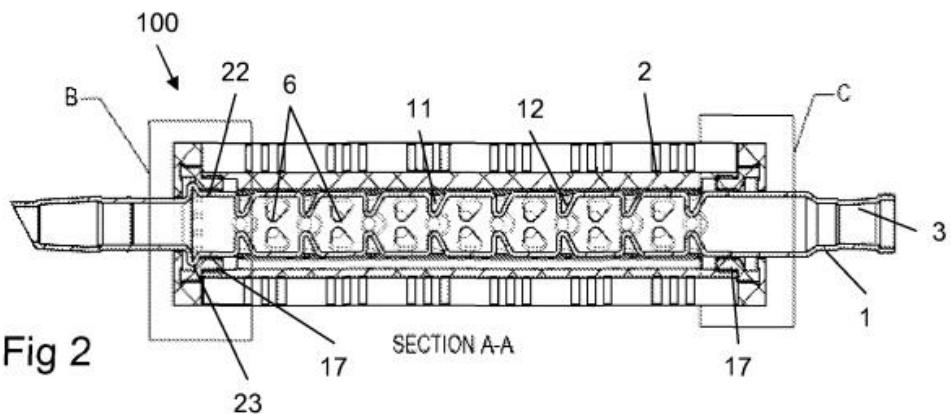


Fig 2

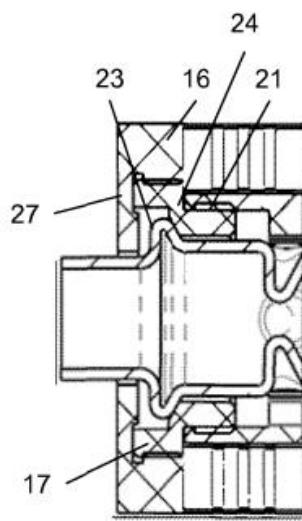


Fig 3

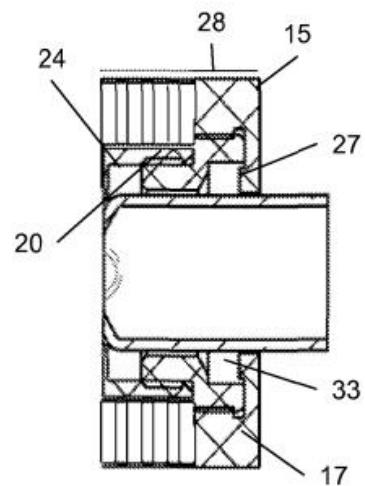


Fig 4

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No

6 Sheets

Sheet No 2

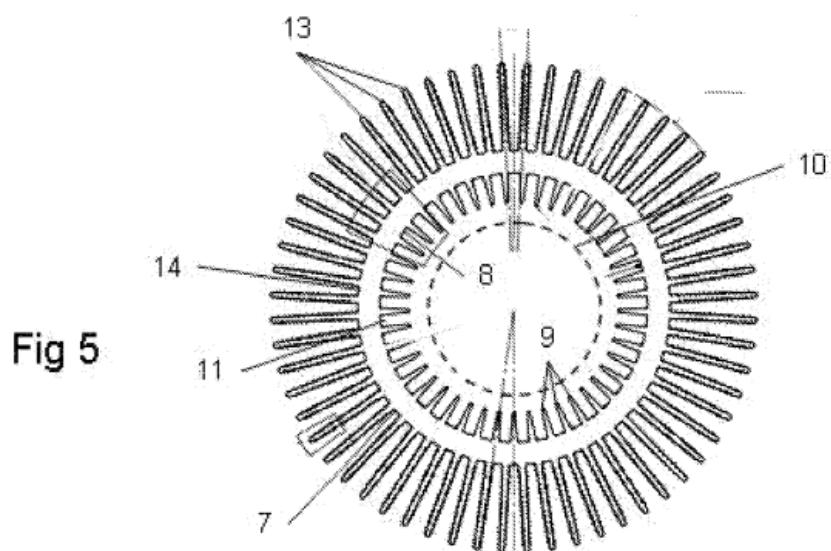


Fig 5

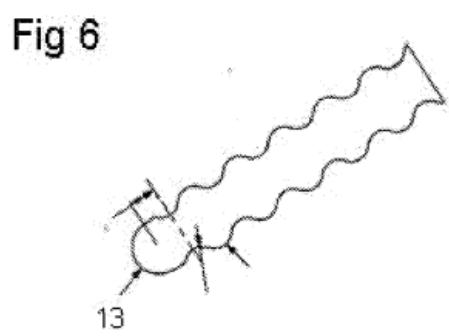


Fig 6

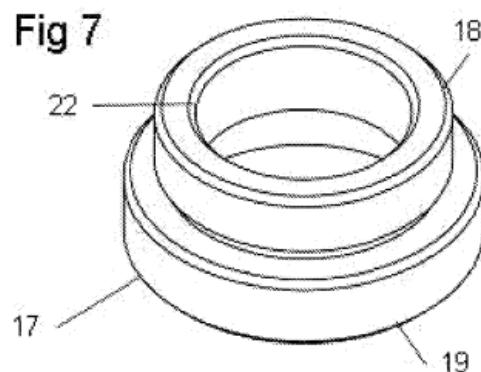


Fig 7

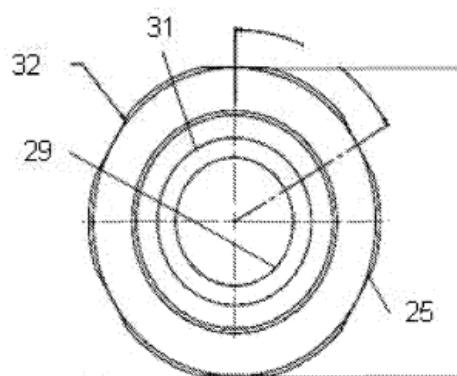


Fig 8

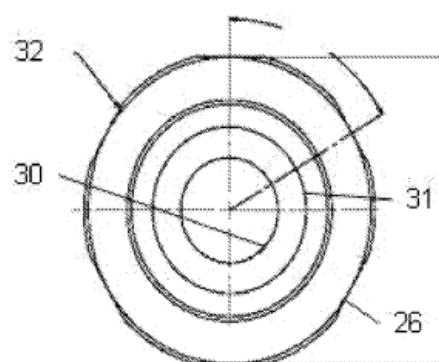


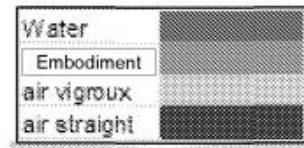
Fig 9

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Solvent	Boiling Point	solvent volume				
		50 mL	100 mL	250 mL	500 mL	1L
Diethyl ether	35					
DCM	40					
Acetone	57					
THF	66					
MeOH	65					
Chloroform	61					
EtOAc	77					
Ethanol	78					
Acetonitrile	82					
heptane	98					
Dioxane	101					

Fig 10



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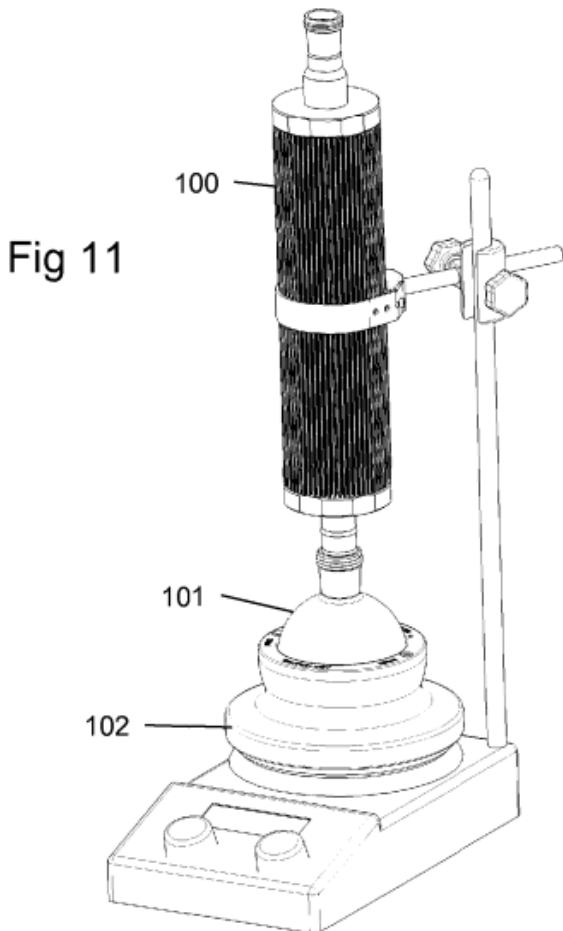


Fig 11

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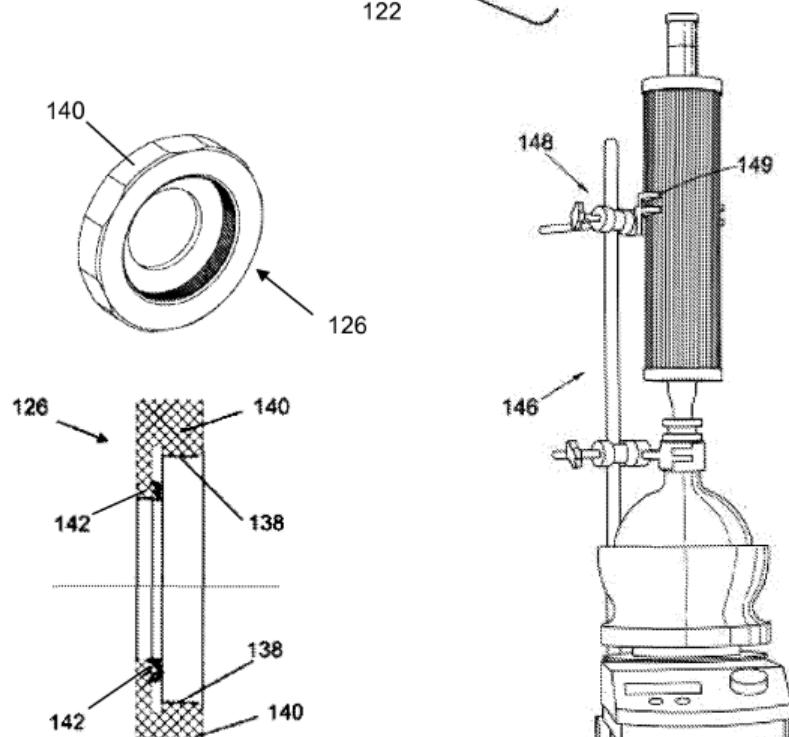
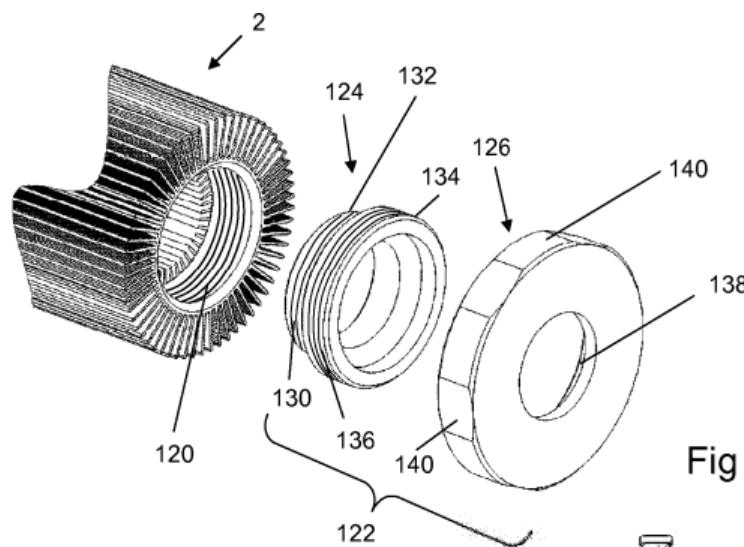
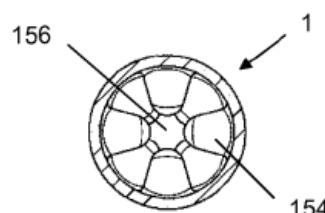
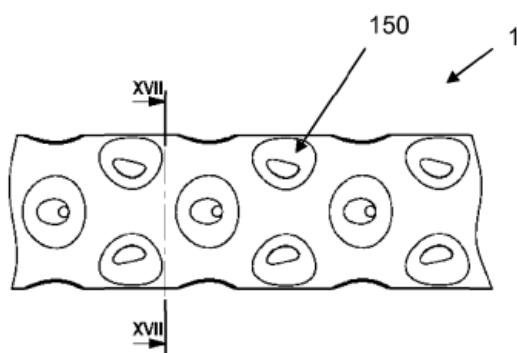
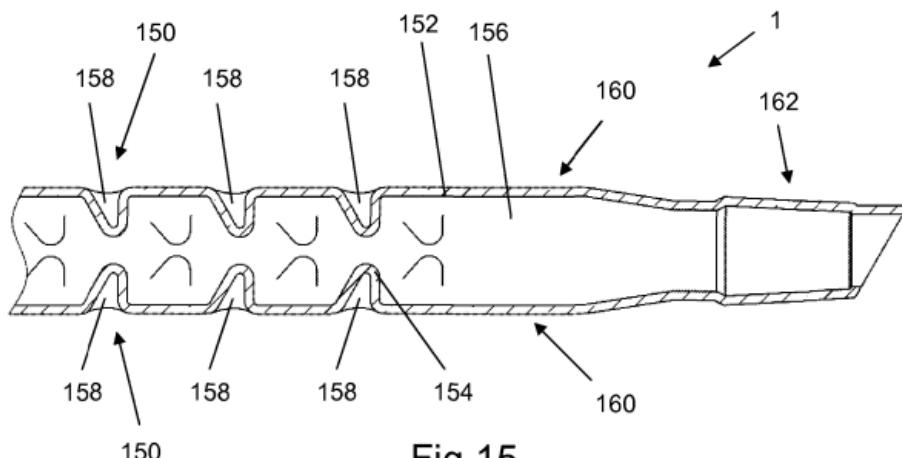


Fig 13

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