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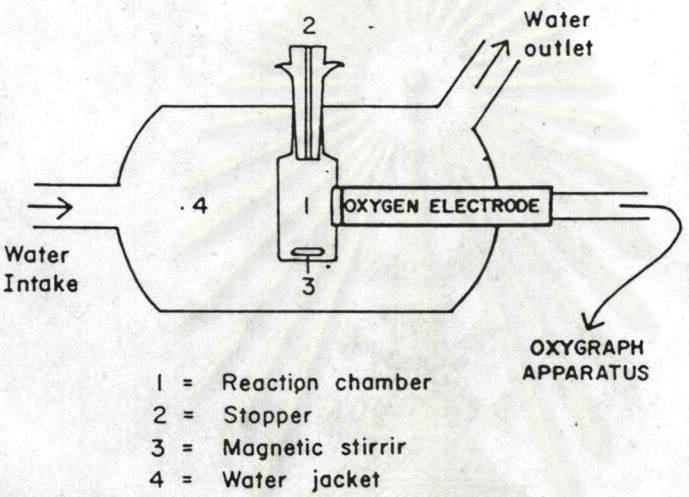
Appendix

Determination of Mitochondrial MAO Activity

The mitochondrial incubation for measurement of the rate of oxygen consumption was made in Gilson reaction chamber at the contant temperature ($37^{\circ}C$)



This figure shows incubation chamber with oxygen electrode which detects oxygen tesion in reaction chamber and records by oxygraph apparatus (oxygen monitor + recorder).

The incubation medium in this experiment was phosphate buffer ph 7.0 which contained 0.50 g of dibasic sodium phosphate and 0.301 g of disodium hydrogen phosphate in sufficient water to produce 1000 ml. For liver mitochondrial preparation; added phosphate buffer 1.8 ml. + mitochondrial preparation 50 mcl. in the chamber, incubated for 2 min. (rate = 5 mm/min.). Then added the substrate 25 mcl. and the inhibitor 25 mcl.

TABLE IX

SELECTIVIVITY OF MAO FOR SOME COMMON SUBSTRATES IN RAT LIVER OR BRAIN MITOCHONDRIA

Substrates for MAO type A	Substrates for MAO type B	Substrates for both MAO forms
Epinephrine	B-phenylethylamine	Tyramine
Norepinephrine	Benzylamine	Dopamine
5-Hydroxytryptamine	Methylhistamine	Kynuramine
Octopamine	Tryptamine	
Methylnorepinephrine	5-Methoxytryptamine	
Methylepinephrine		

Note: This information is intended as a guide and may not hold rigidly in every cases. Selectivity for one MAO form or other may depend on experimental conditions, particularly substrate concentration and enzyme source.

TABLE X

SOME SELECTIVE INHIBITORS OF MITOCHONDRIAL MONOAMINE OXIDASE TYPE A AND TYPE B

Type-A Inhibitors	Type-B Inhibitors
Irreversible Inhibitors	
Clorgyline	(-)Deprenyl
M&B 9303	Pargyline
MO 1671	AGN 1135
LY 51641	AGN 1278
Reversible Inhibitors	
Amphetamine	Tricyclic antidepressants
Harmaline	MD 780236
MD 780515	
FLA 336	
RO 11-1163	
B-Carbolines	

Note: The above is a much-abridged list of some of the most potent and/or most selective compounds of many that have been described in the literature.

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