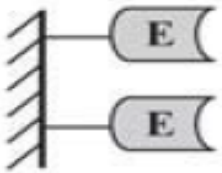
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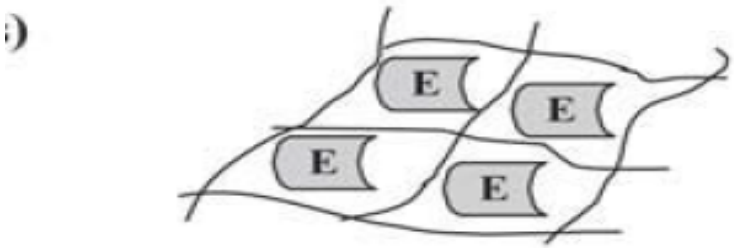
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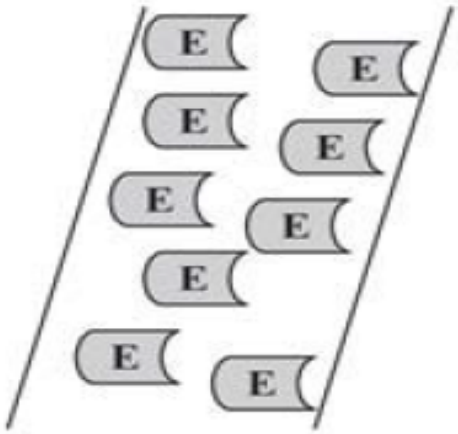
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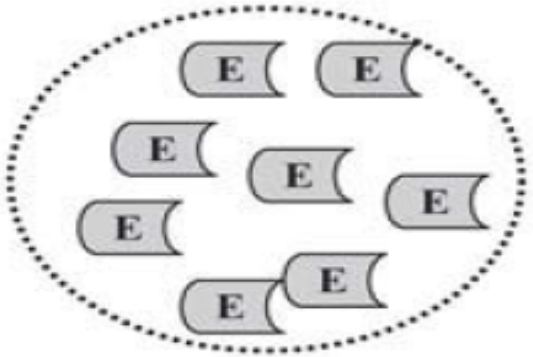
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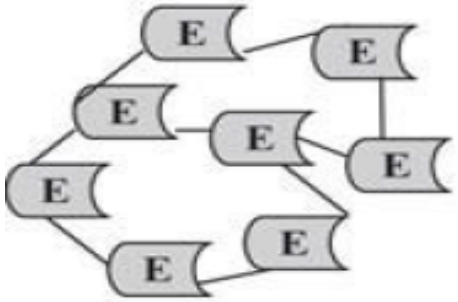
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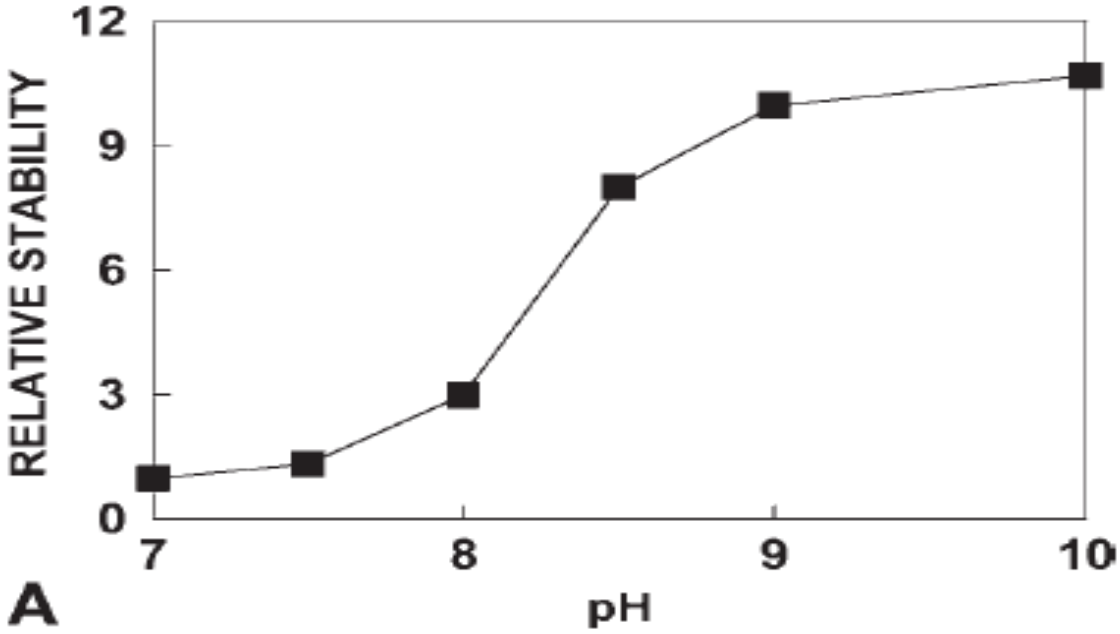
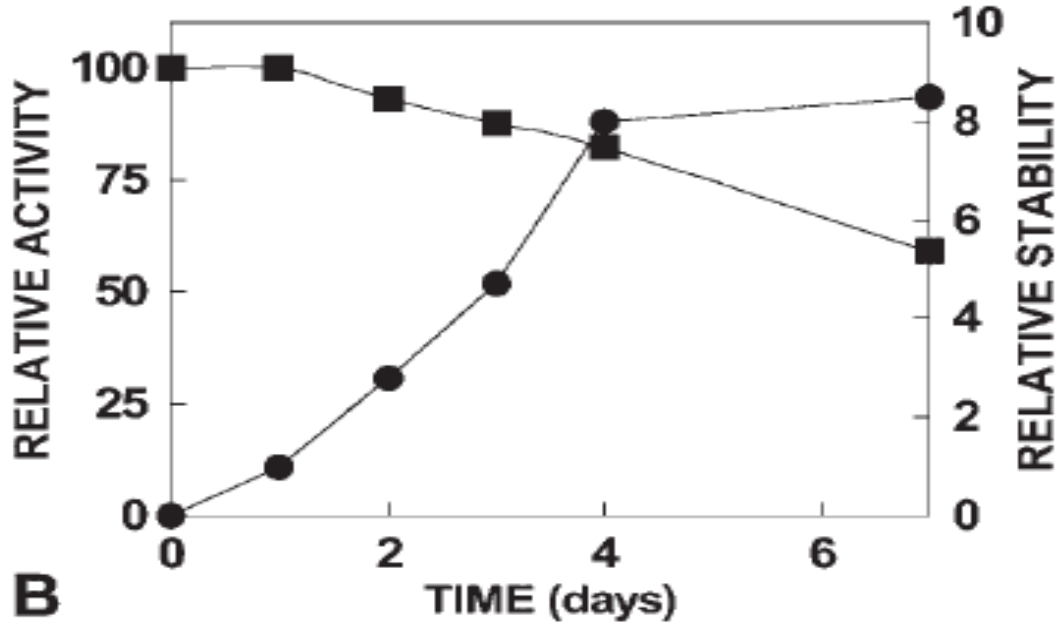
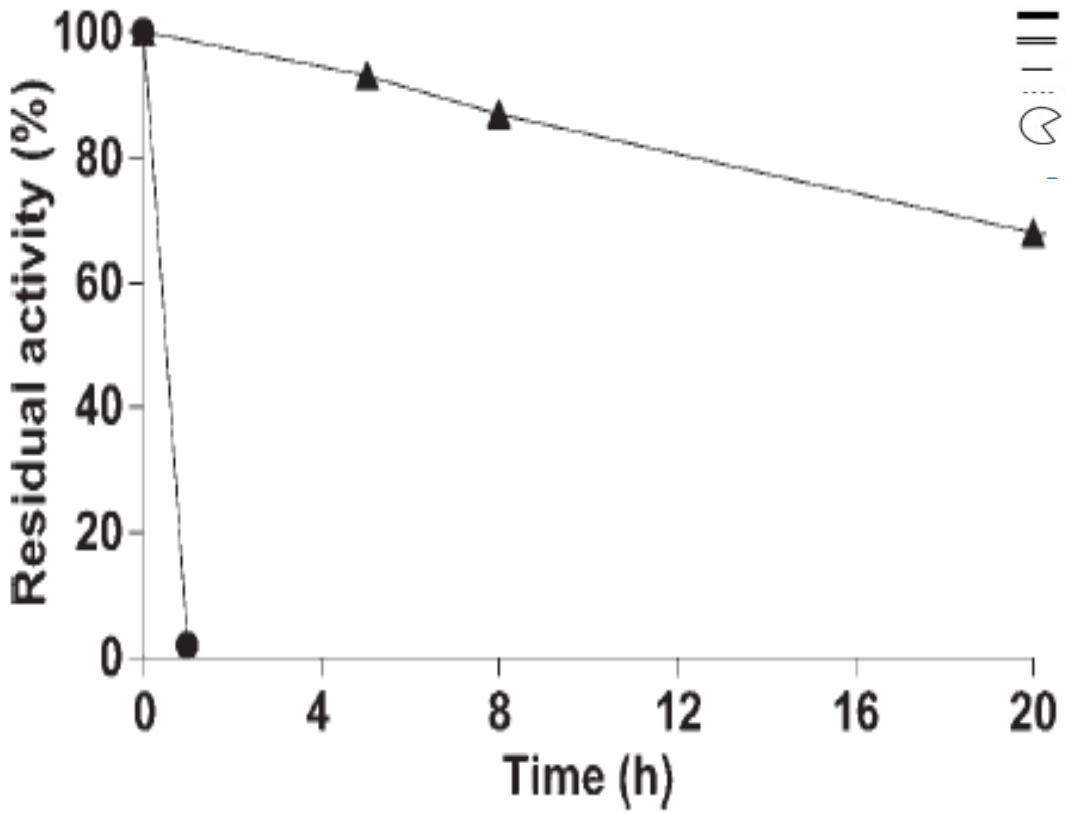

RELATIVE STABILITY
12
9
6
3
0
7
8
9
10
pH
A


RELATIVE ACTIVITY
100
75
50
25
0
0
2
4
6
TIME (days)
RELATIVE STABILITY
10
8
6
4
2
0
B



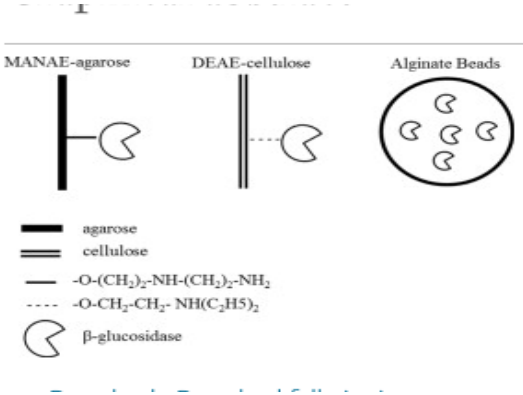


Fig. 4. Thermal stability of different GOX preparations. Triangle, immobilized on MANAE agarose activated with glutaraldehyde. Circle, soluble enzyme. Inactivation conditions were 56°C, pH 7.0, and 0.4 U/mL.

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Immobilization and stabilization of alcohol dehydrogenase on polyvinyl alcohol fibre

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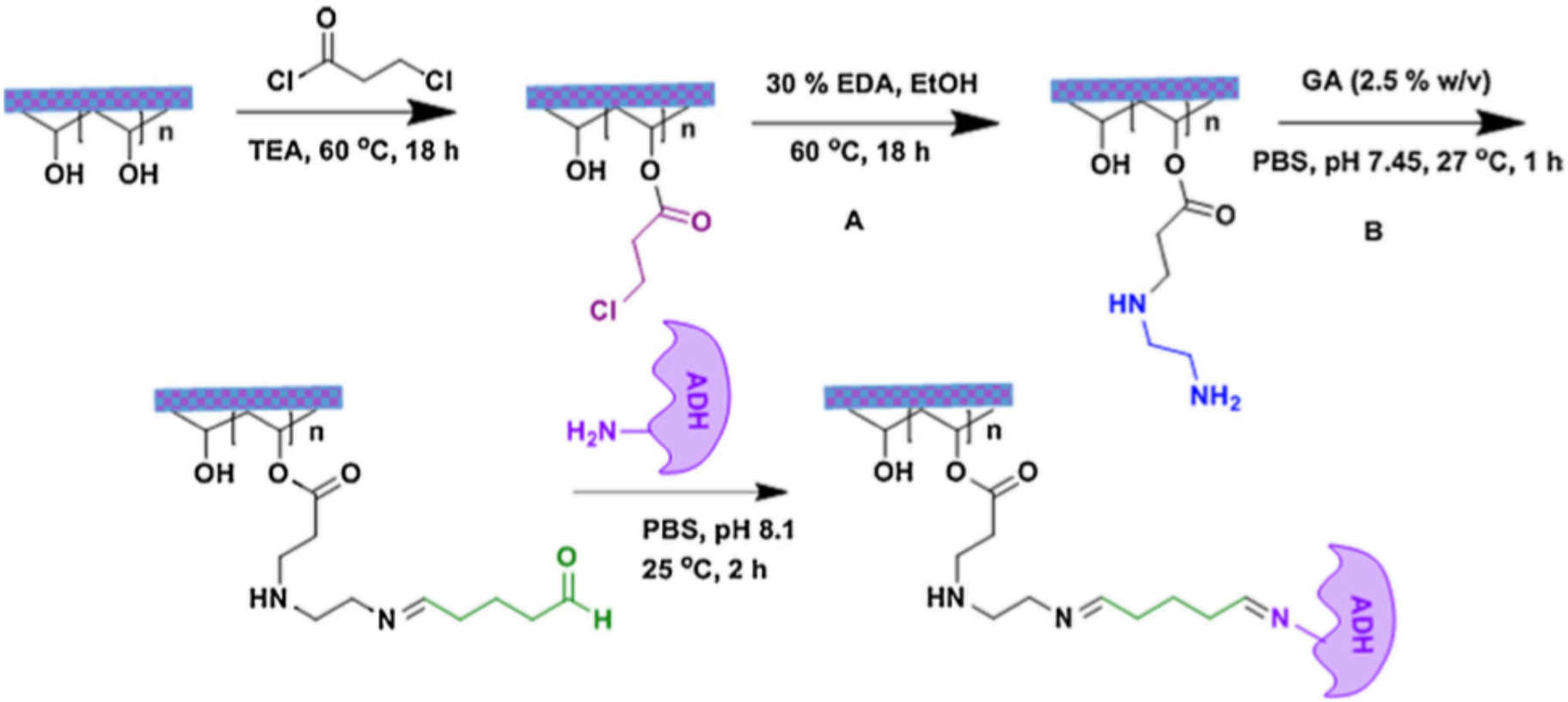

Fig. 1. Schematic representation of covalent immobilization of ADH on modified PVA fibrous carrier.

Table 1
ADH activity after immobilization on various modified PVA carriers.

PVA fibrous carriers	Activity (mmol/g min)
PVA-Cl-EDA-GA +ADH	0.765 ± 0.03
PVA-Cl-EDA + ADH	0.210 ± 0.02
PVA-Cl + ADH	0.170 ± 0.02
PVA + ADH	0.105 ± 0.07

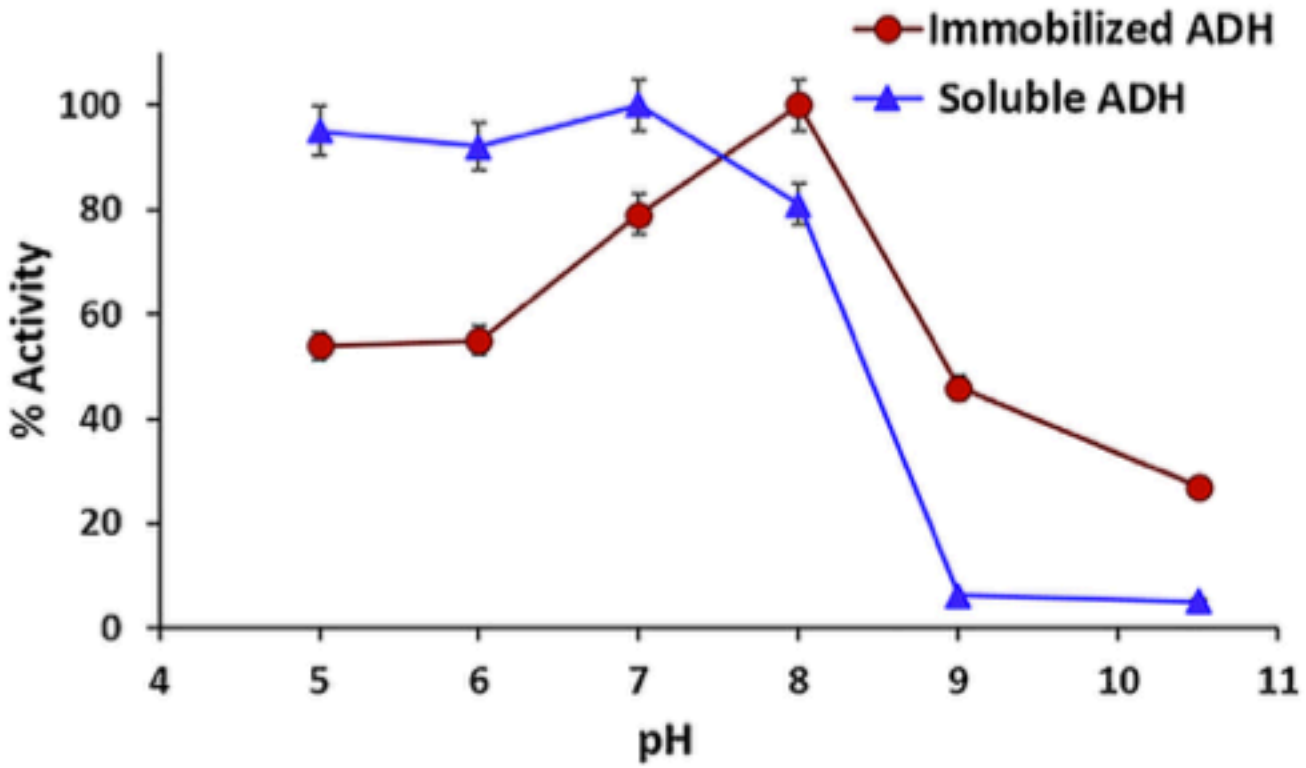

Fig. 5. Stability of soluble and immobilized ADH at different pHs. Both soluble ADH and immobilized ADH were incubated at 40 °C for 2 h in different pH buffered solutions.

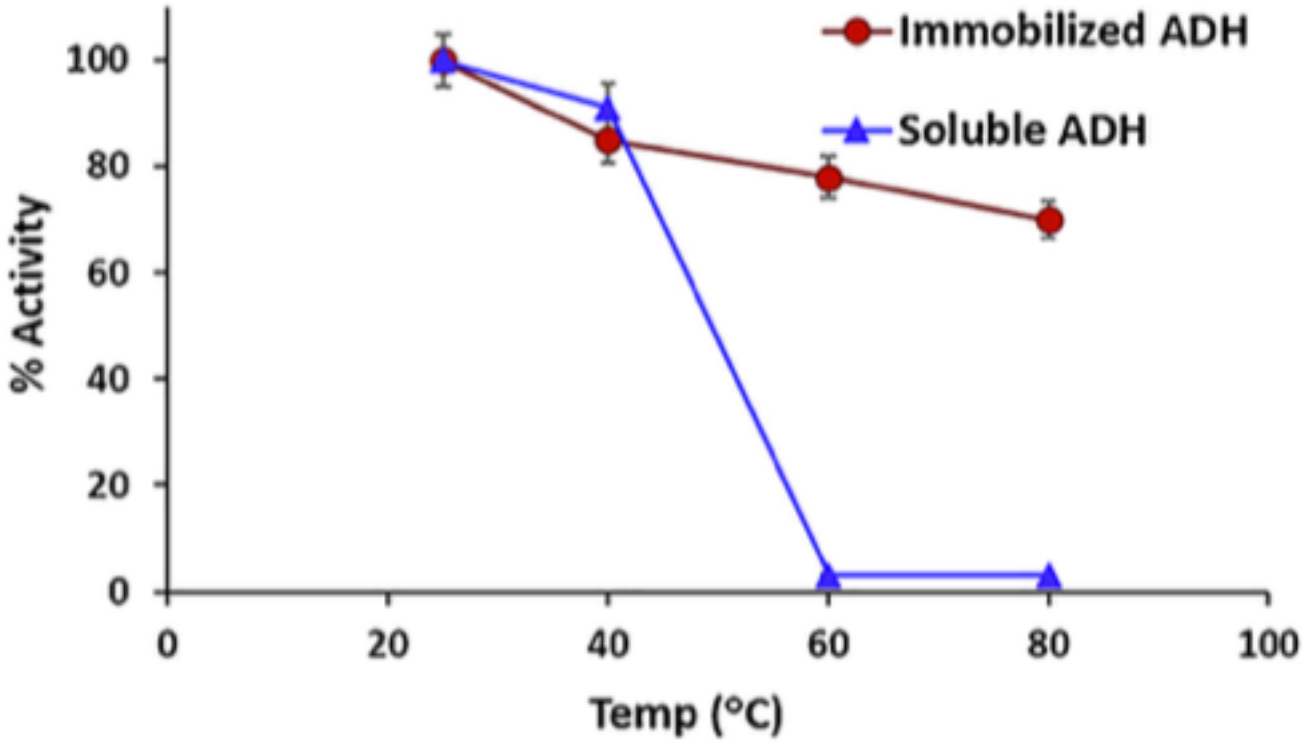

Fig. 6. Thermostability of soluble and immobilized ADH after being heated at different temperatures in phosphate buffer (0.05 M, pH 8.1) for 2 h.

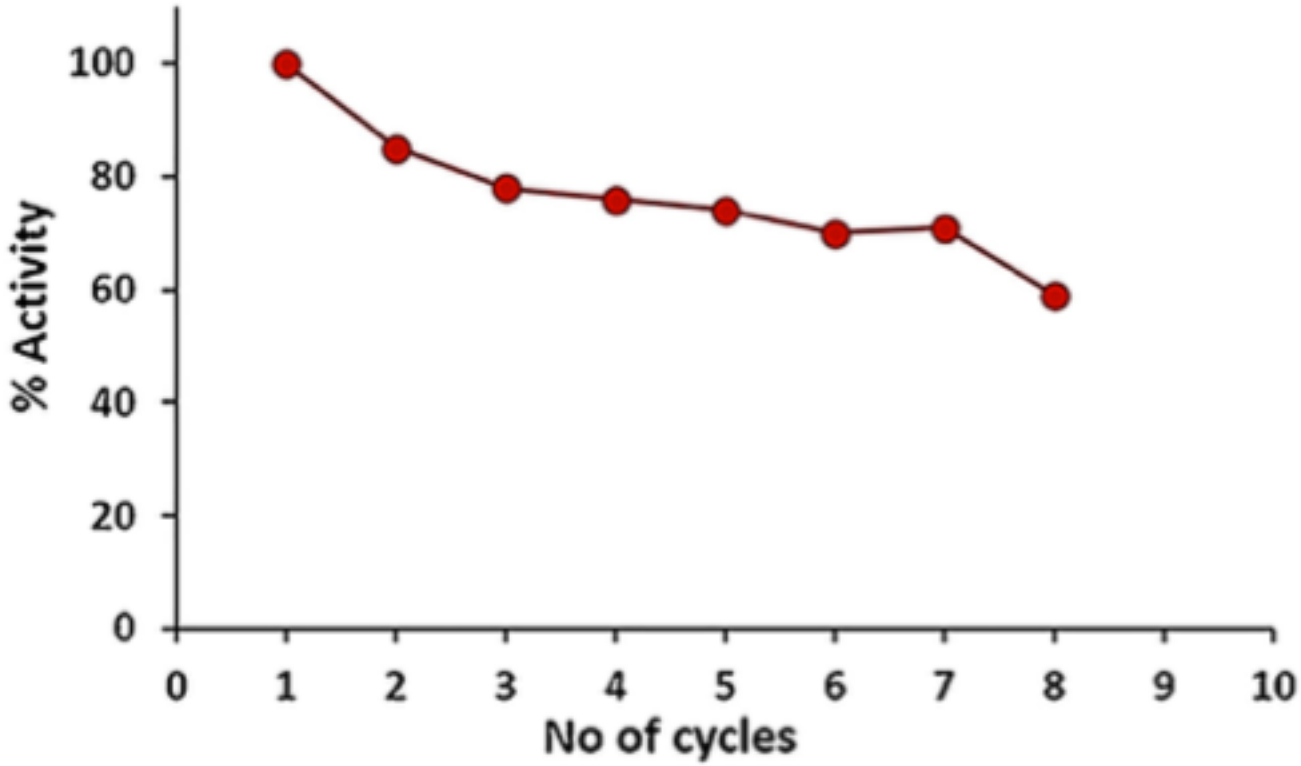

Fig. 7. Reusability of the immobilized ADH.

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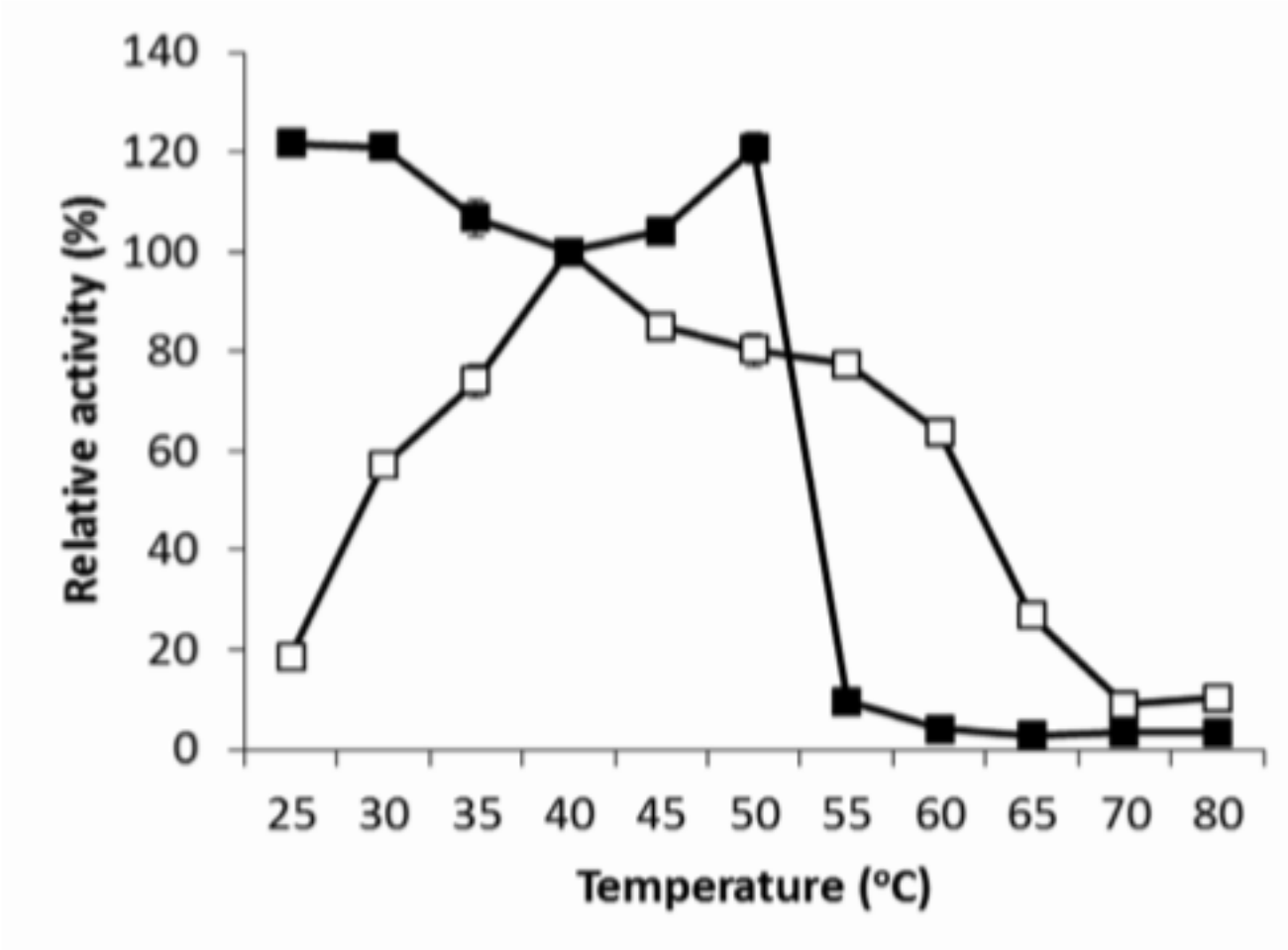
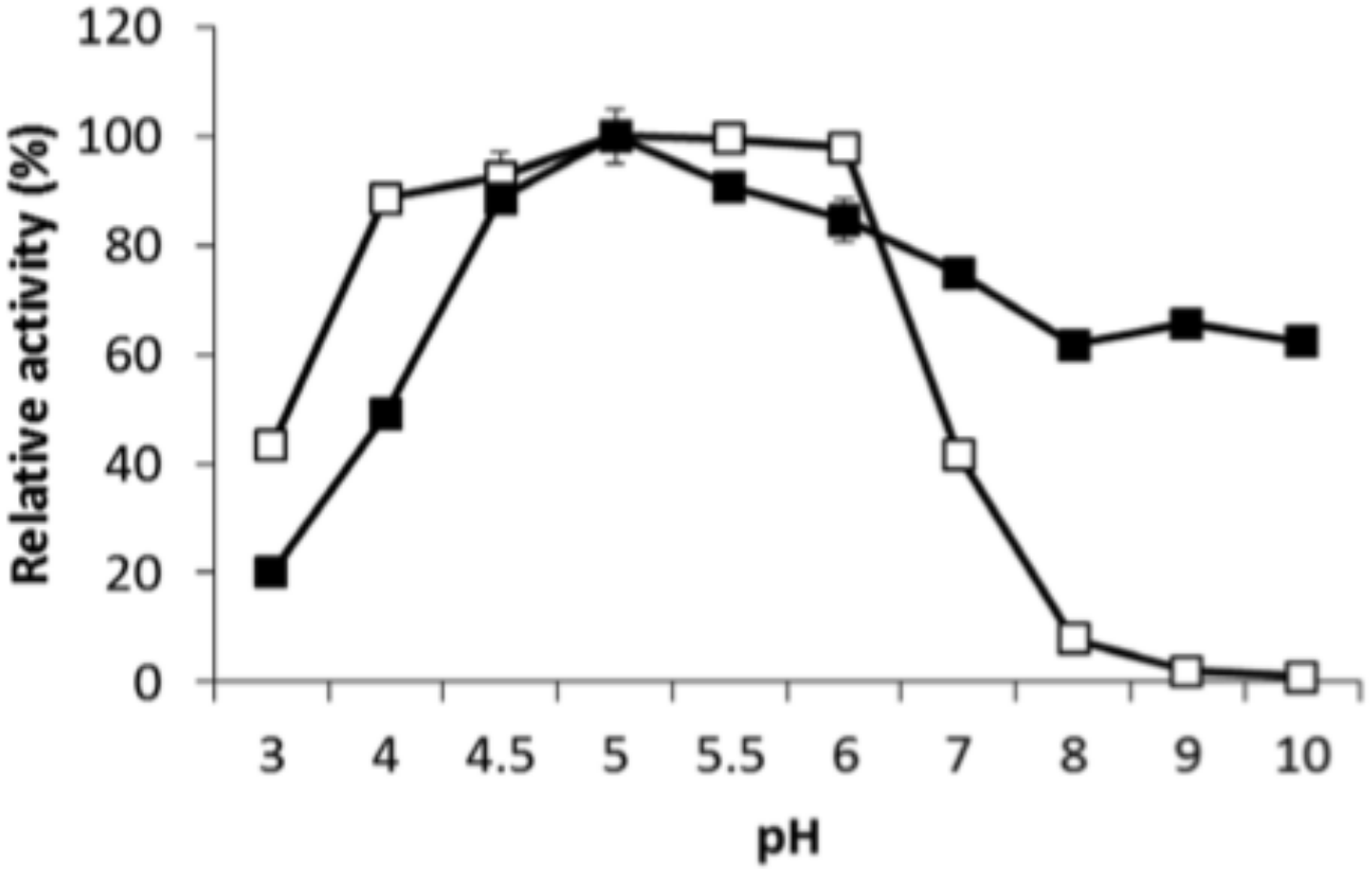
Glucose and Fructose Production by *Saccharomyces cerevisiae* Invertase Immobilized on MANAE-Agarose Support

Table 1: Immobilization yields of invertase from *S. cerevisiae* on various supports.

Enzyme preparation	Immobilized Protein		Activity (V0)	
	(mg protein.mL^{-1} derivative)	Immobilization yield (%)	U.mg^{-1}	Recovered activity (%)
Soluble (3.5mg prot.mL^{-1})	-	-	29.5	100.0
Glyoxyl-agarose	2.2	62	1.7	5.8
MANAE-agarose	2.1	60	21.6	73.5
MANAE-agarose + glutaraldehyde	2.1	60	13.1	44.4
Glutaraldehyde-agarose	3.3	92	10.8	36.8
Sepabeads	3.4	94	2.0	6.8
Eupergit	3.4	95	0.2	0.5

Assays performed in 50mM sodium acetate buffer at pH 5.0 and 40 °C, with 1% sucrose as substrate.


140
120
100
80
60
40
20
0
Relative activity (%)
25
30
35
40
45
50
55
60
65
70
80
Temperature (°C)


120
100
80
60
40
20
0
Relative activity (%)
3
4
4.5
5
5.5
6
7
8
9
10
pH