

1/50

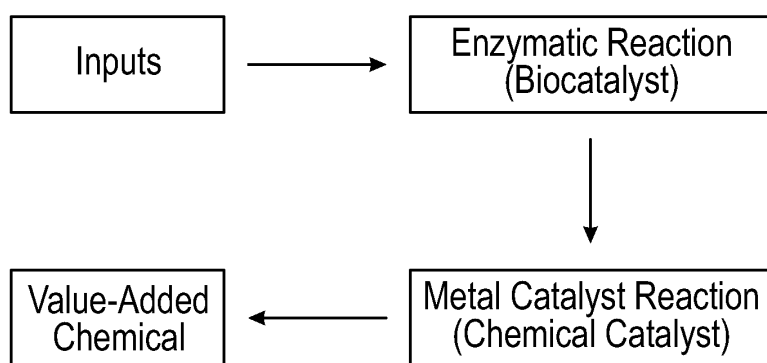


FIG. 1A

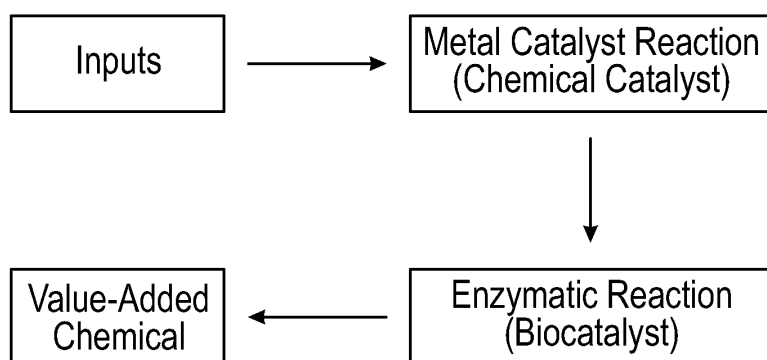


FIG. 1B

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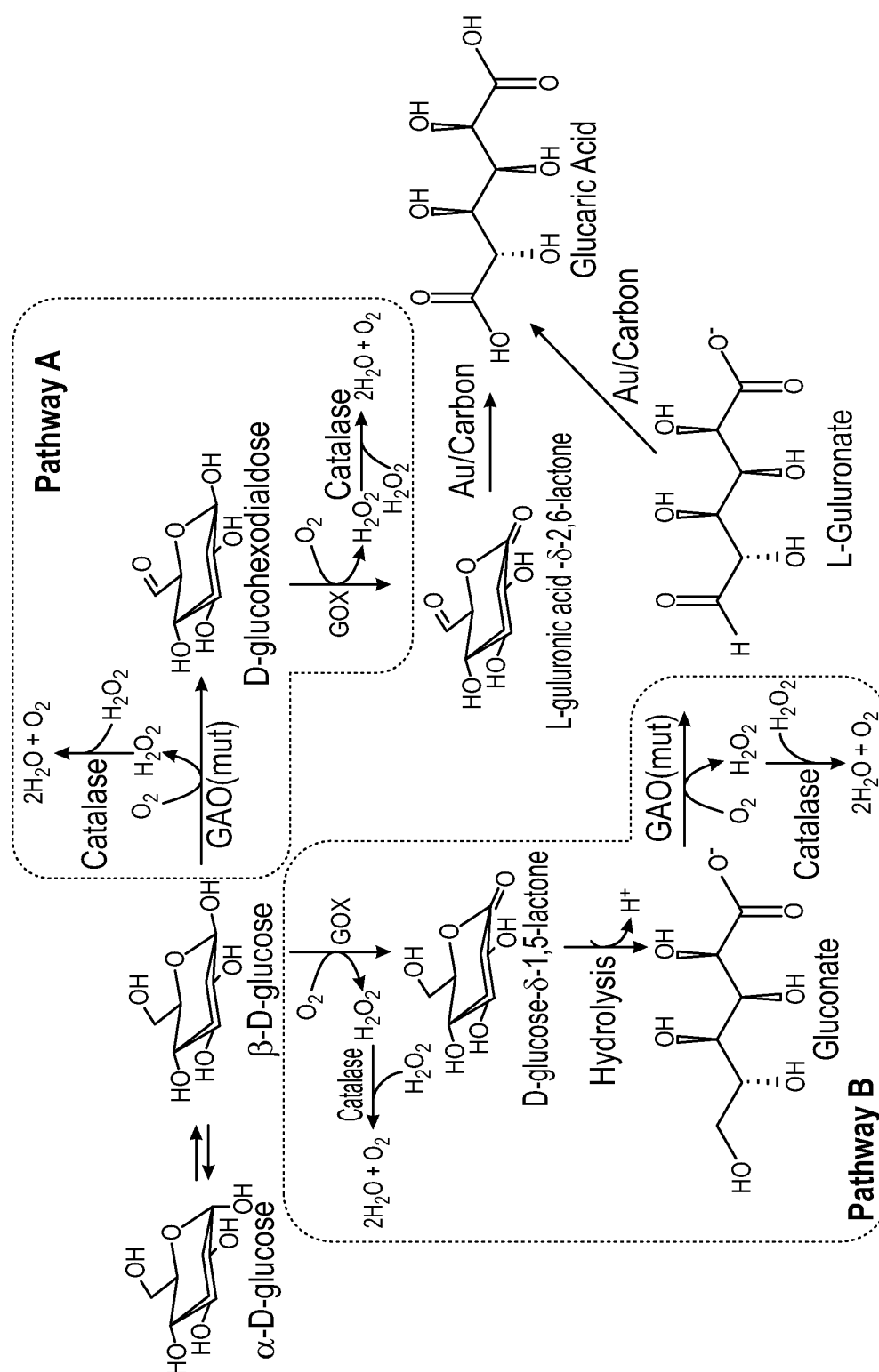


FIG. 2

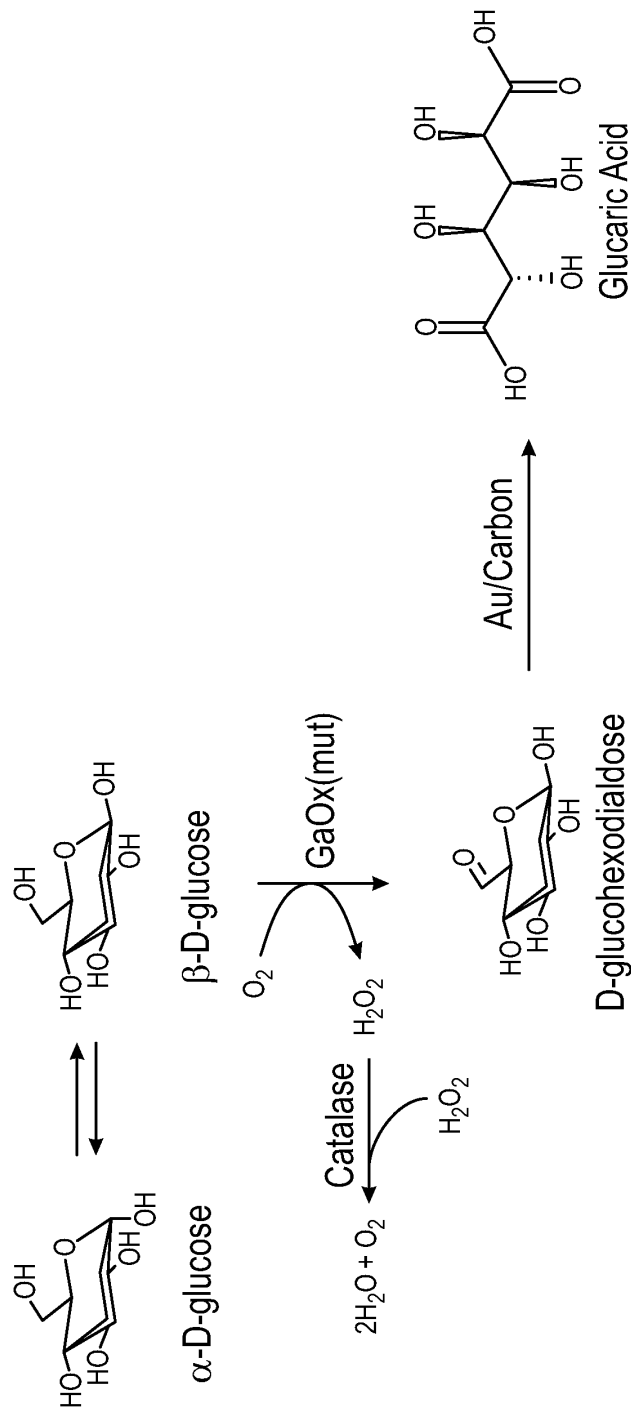


FIG. 3

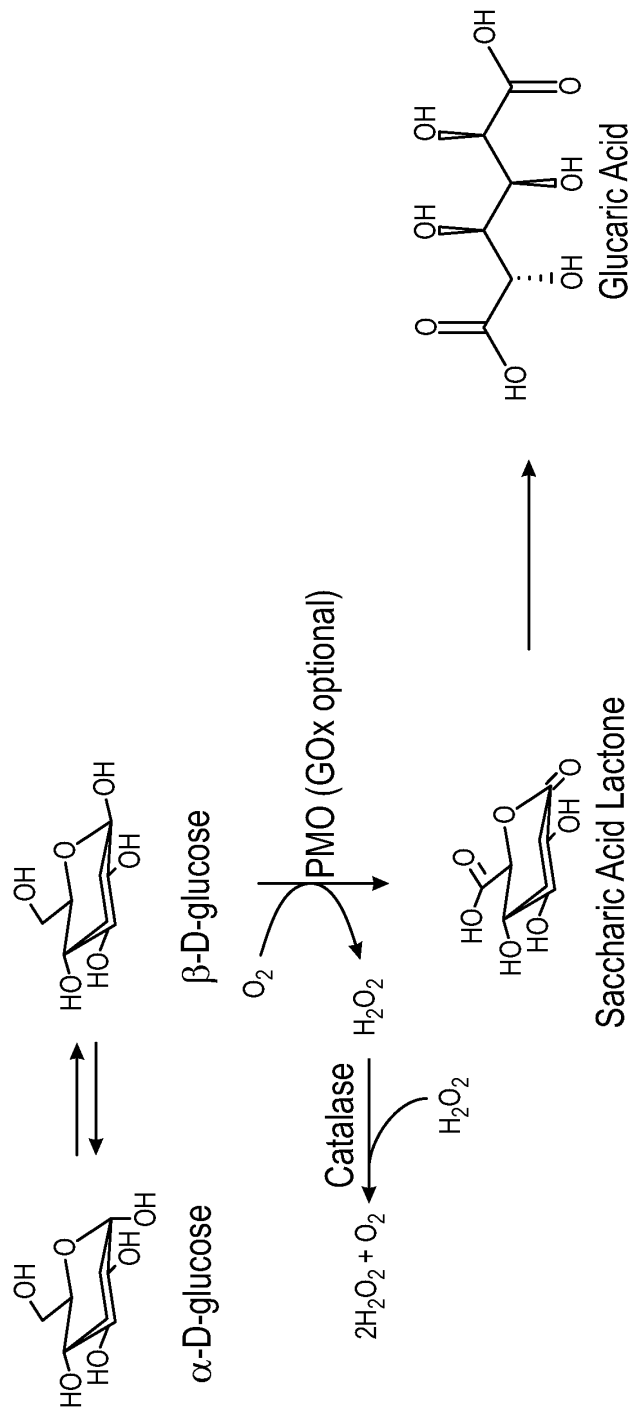


FIG. 4

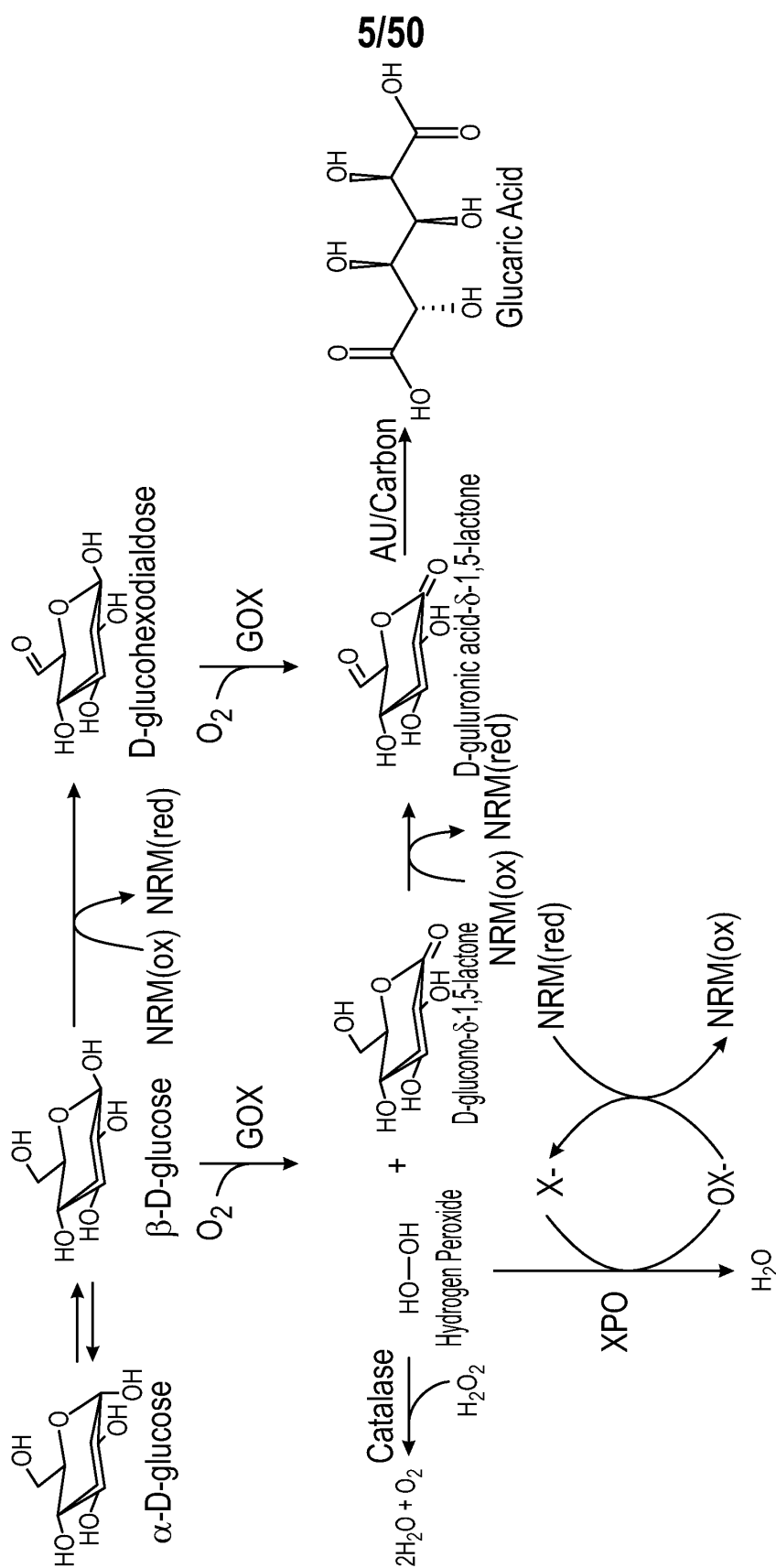


FIG. 5

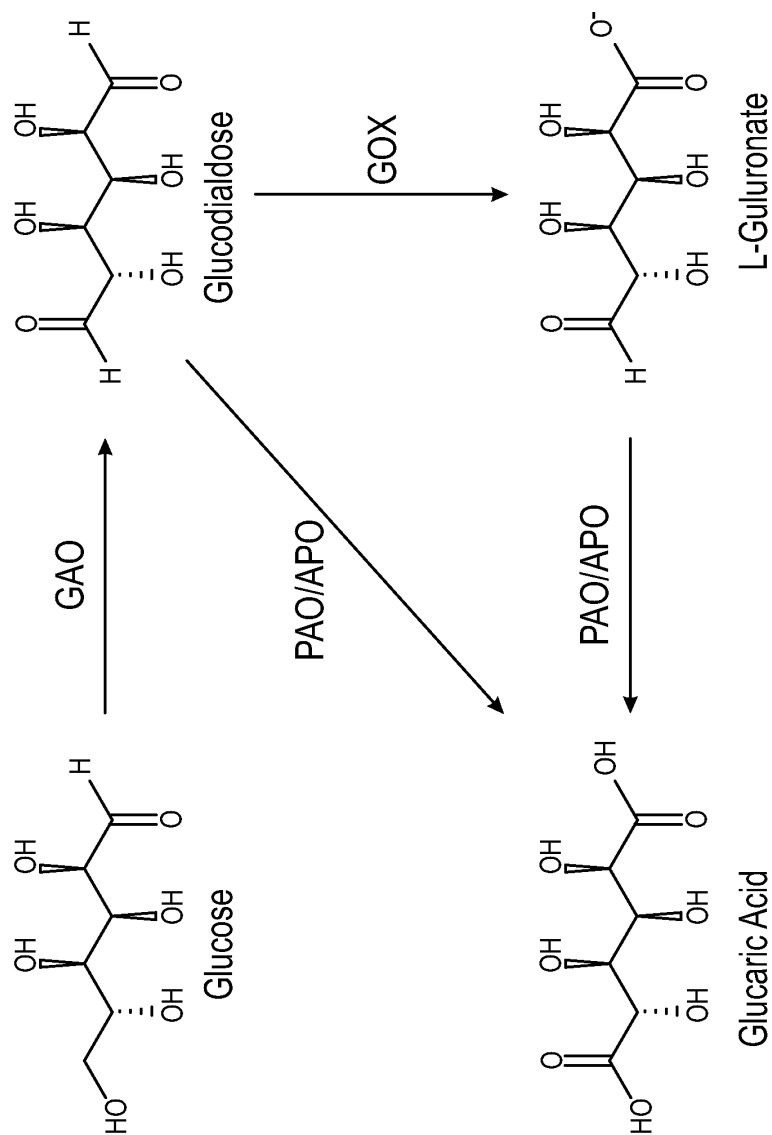


FIG. 6

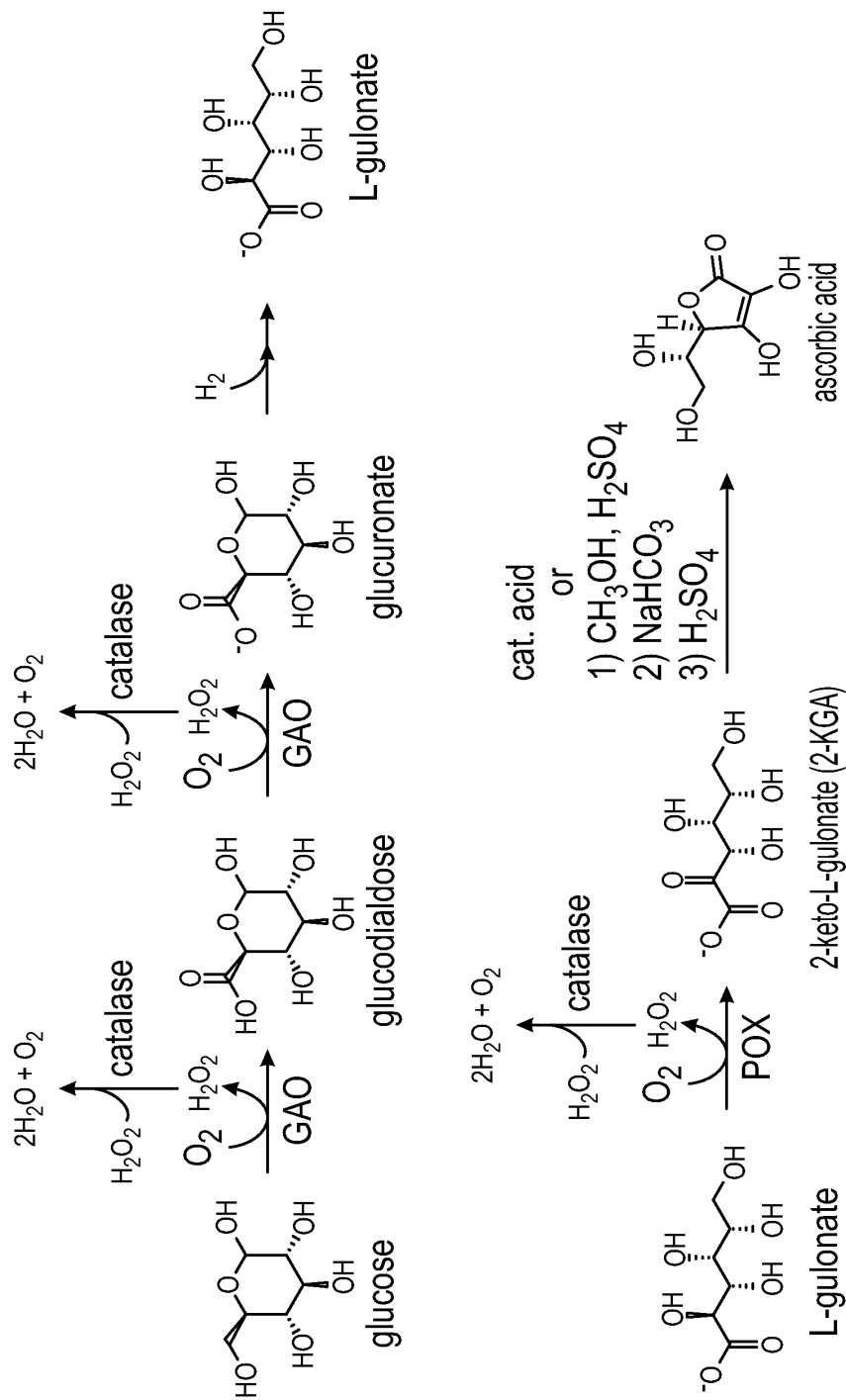


FIG. 7

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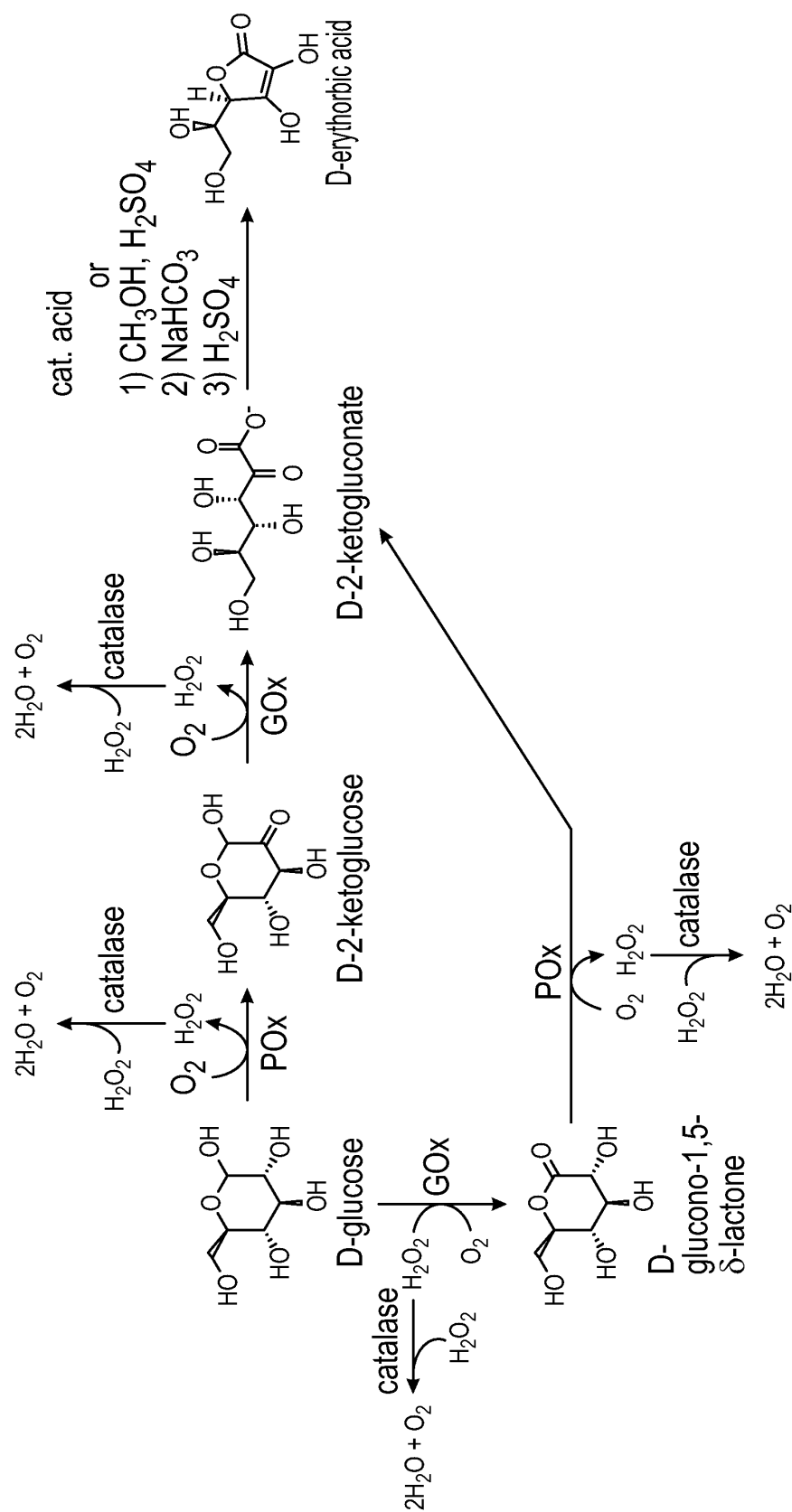


FIG. 8

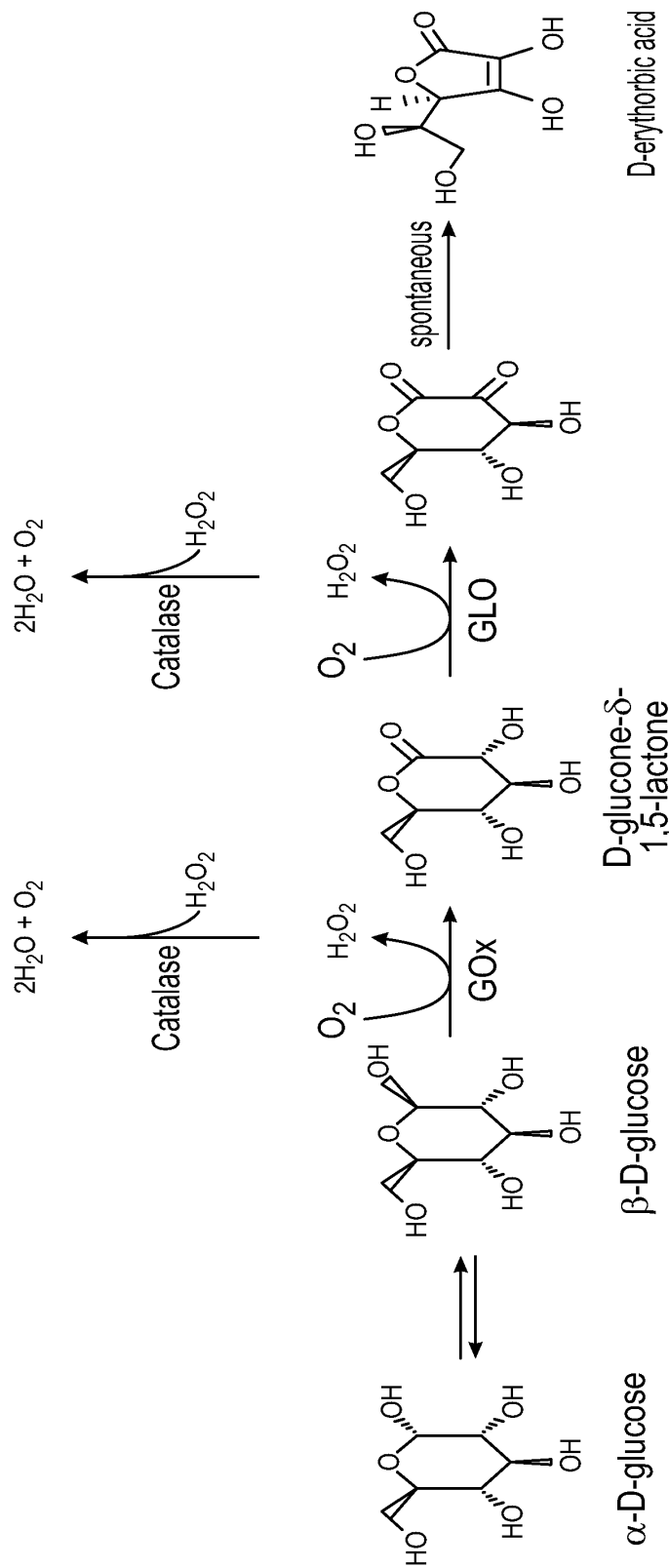


FIG. 9

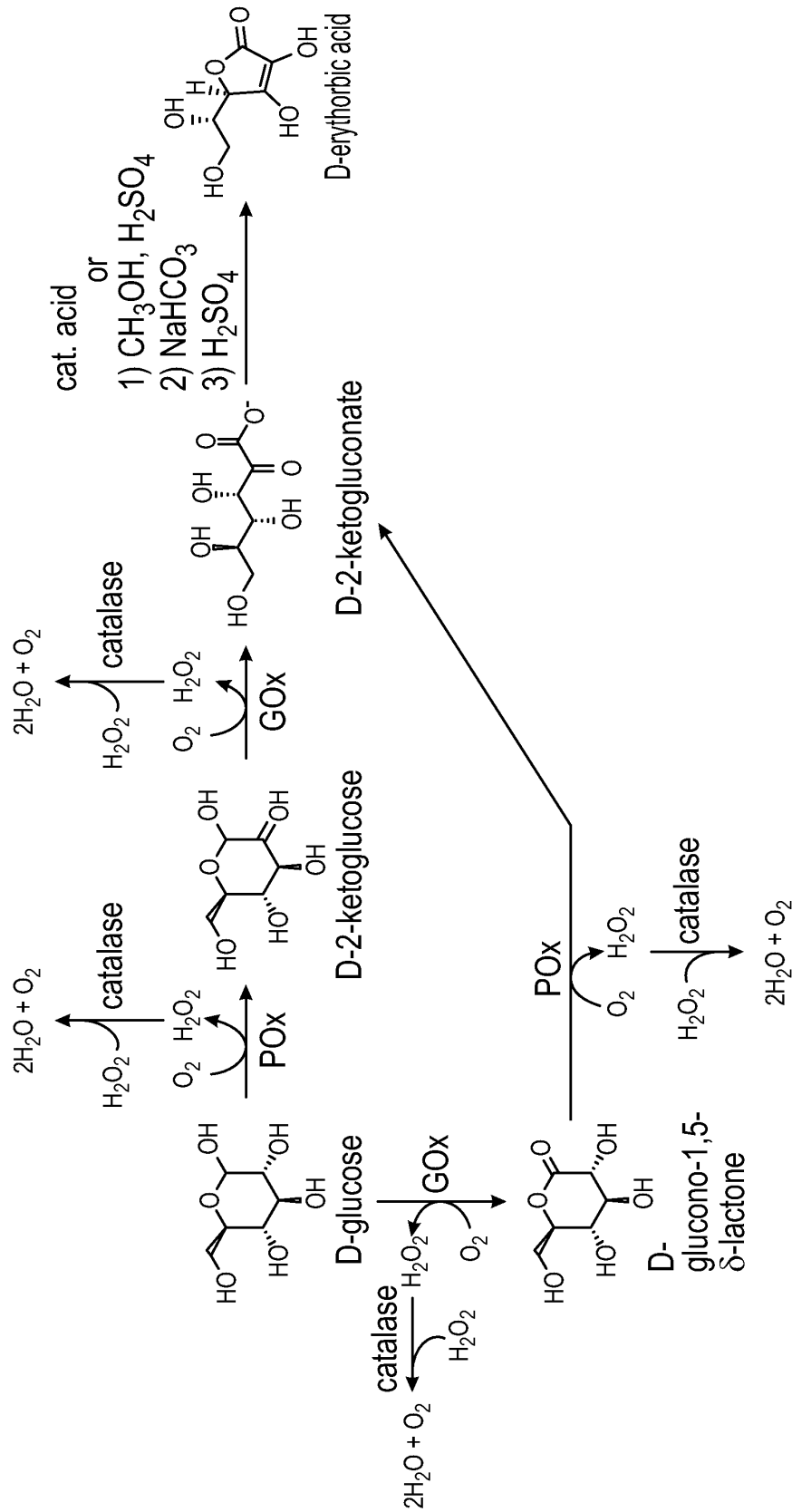


FIG. 10

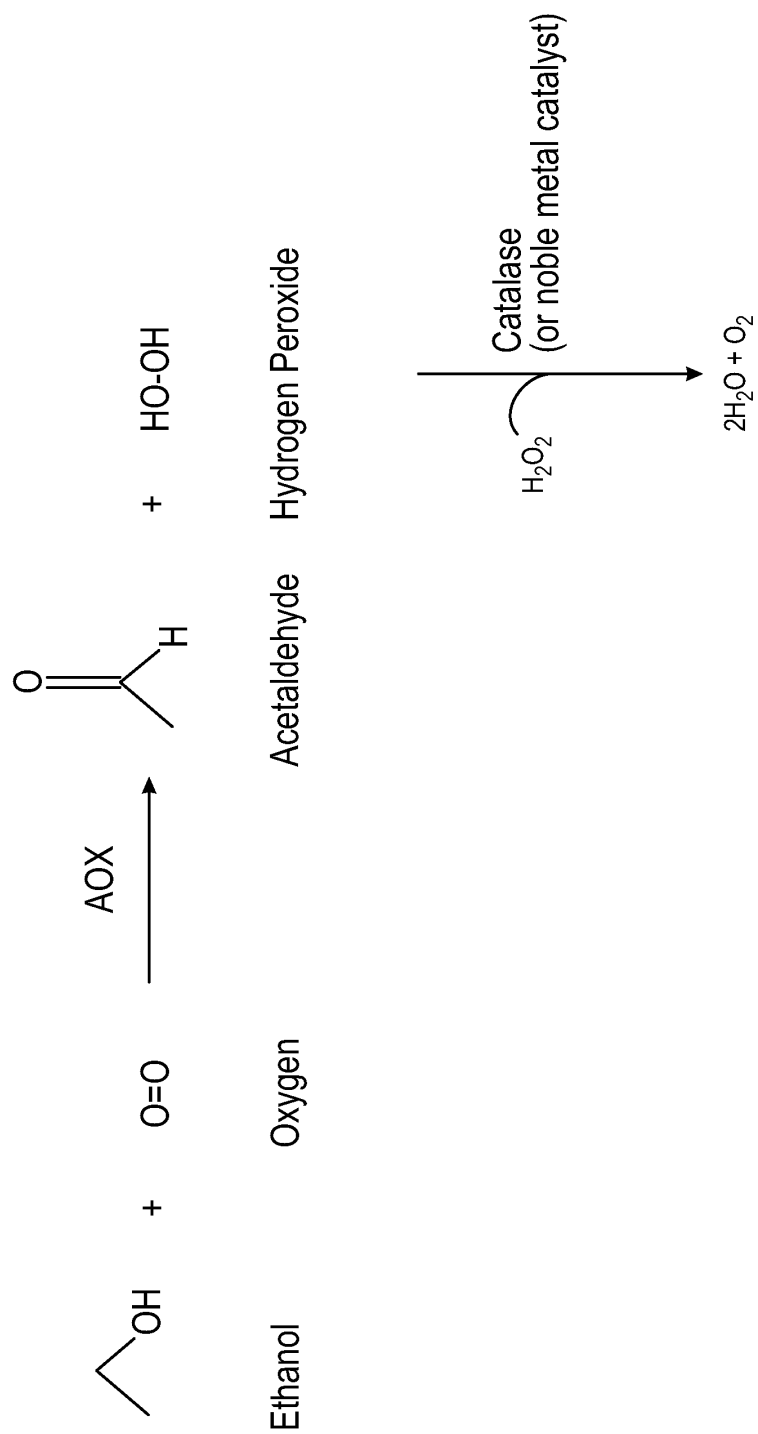


FIG. 11

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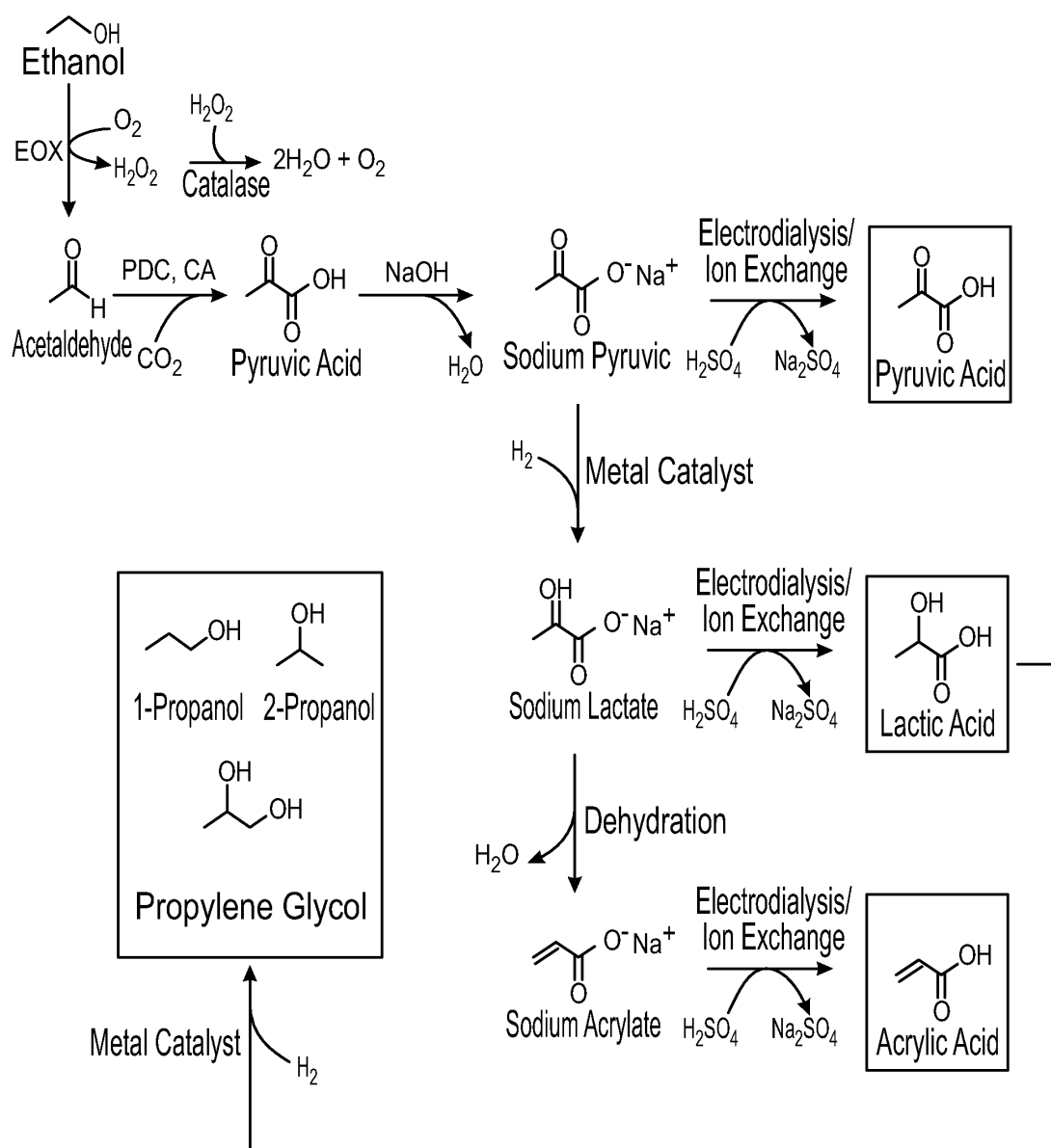


FIG. 12

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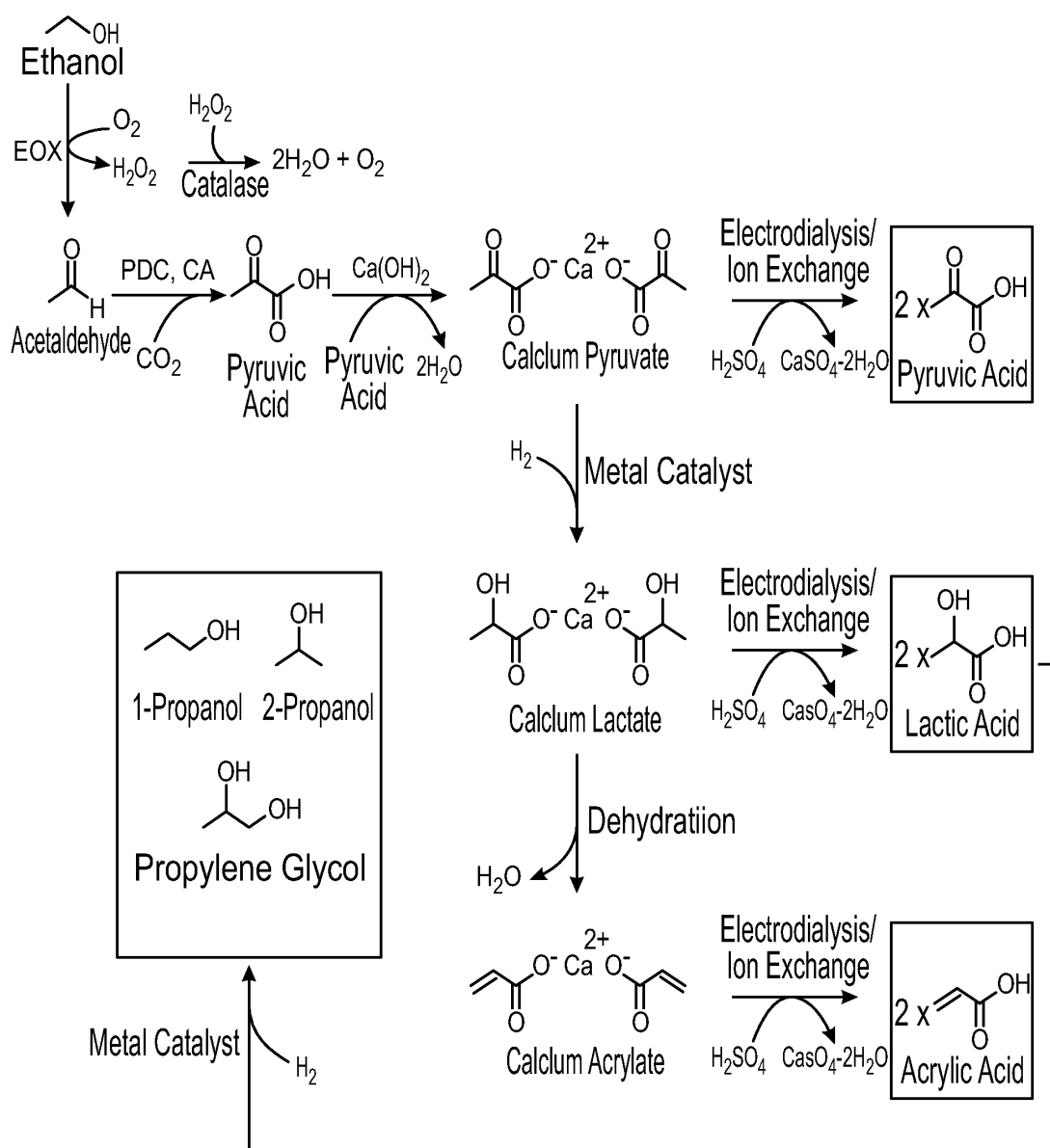


FIG. 13

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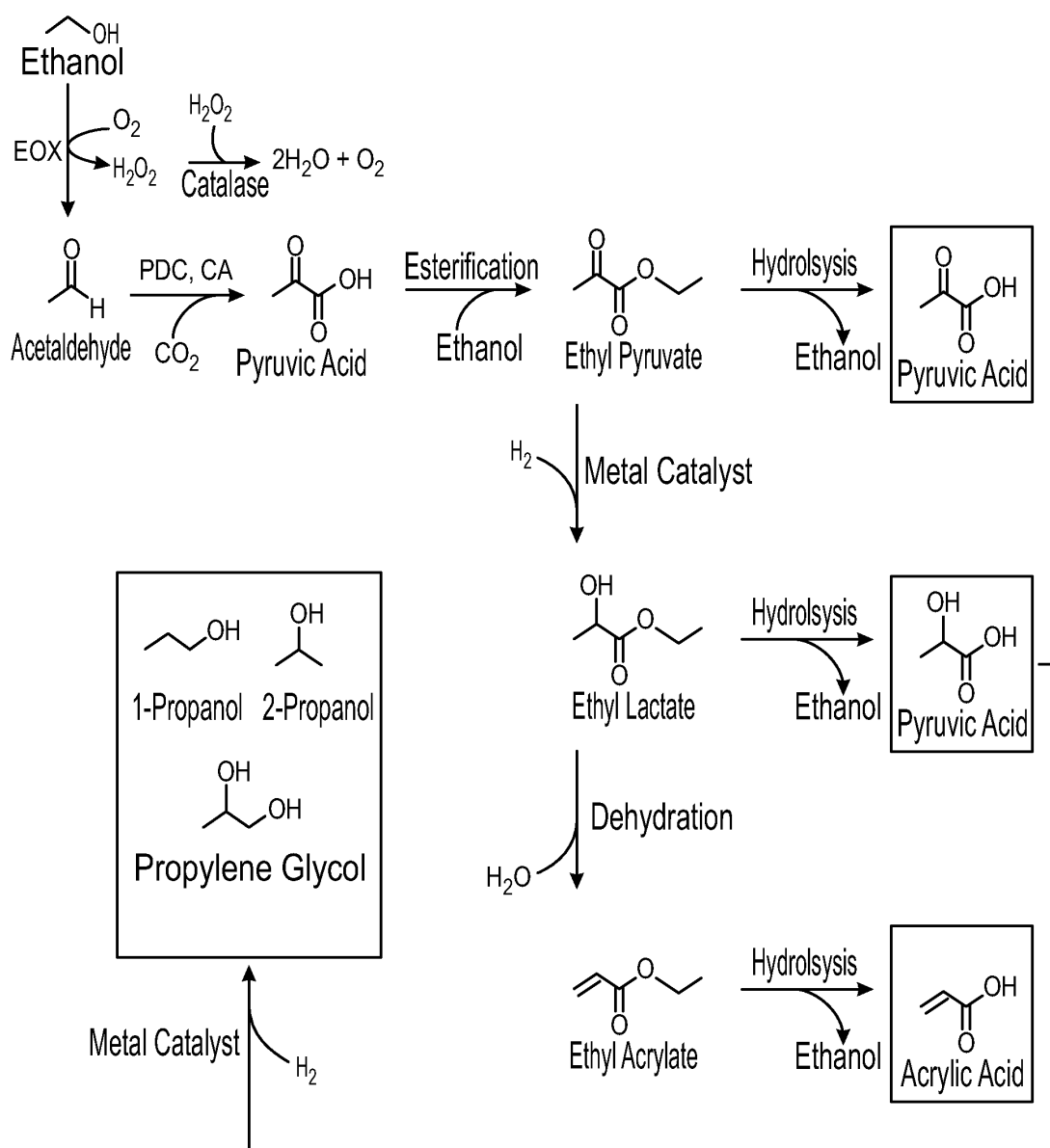


FIG. 14

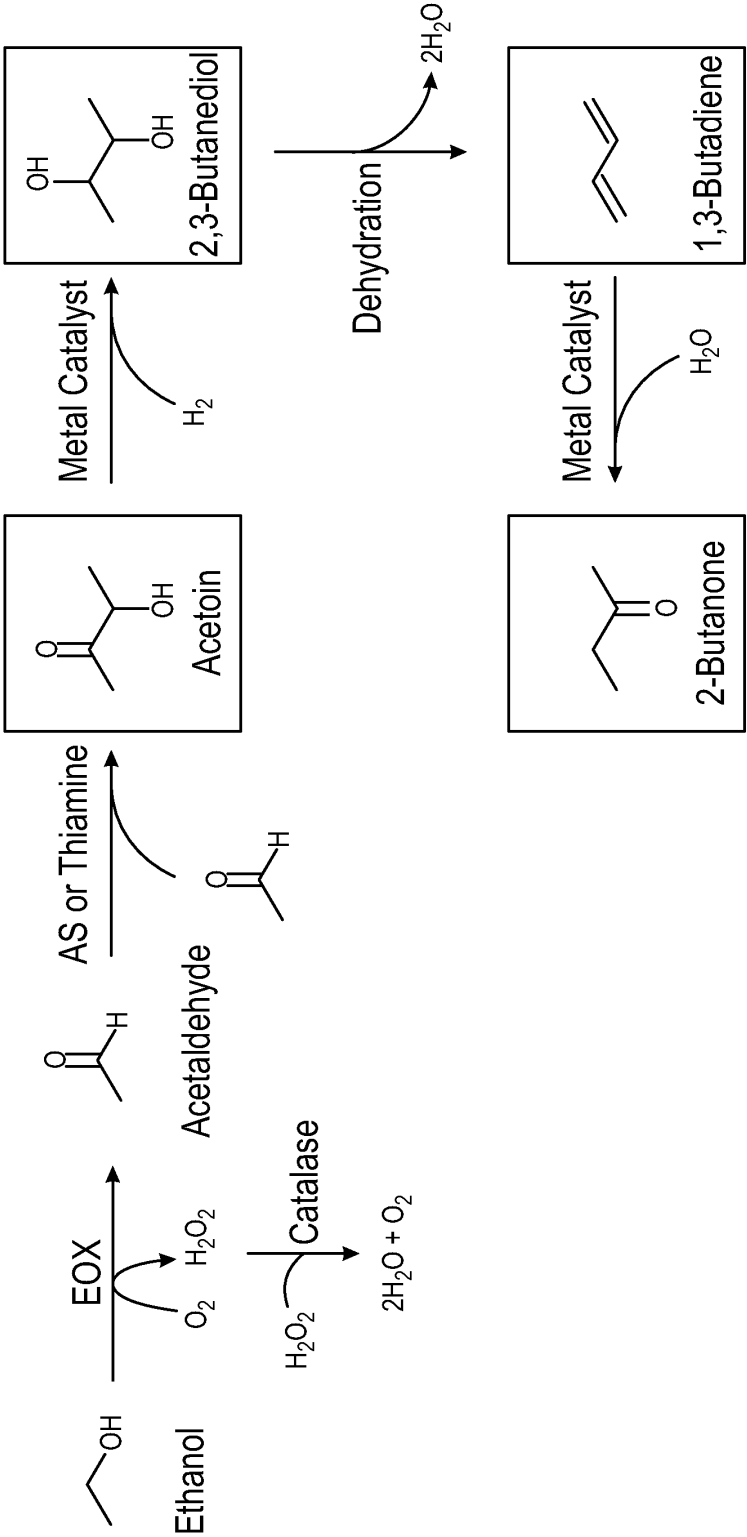


FIG. 15

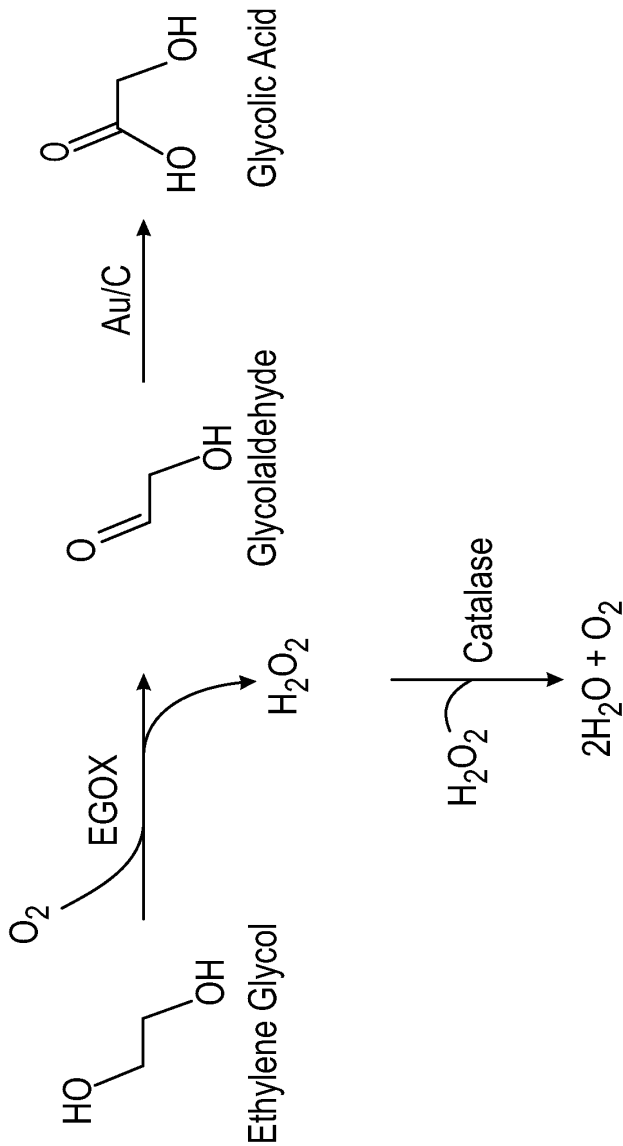


FIG. 16

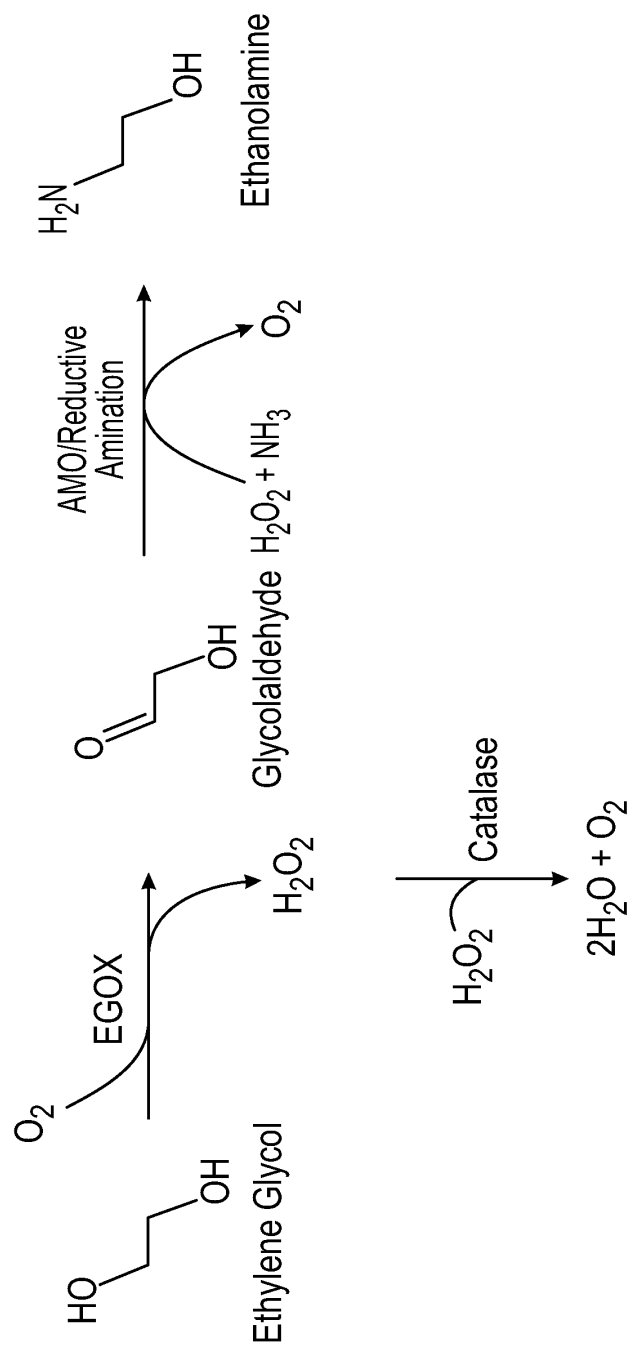


FIG. 17

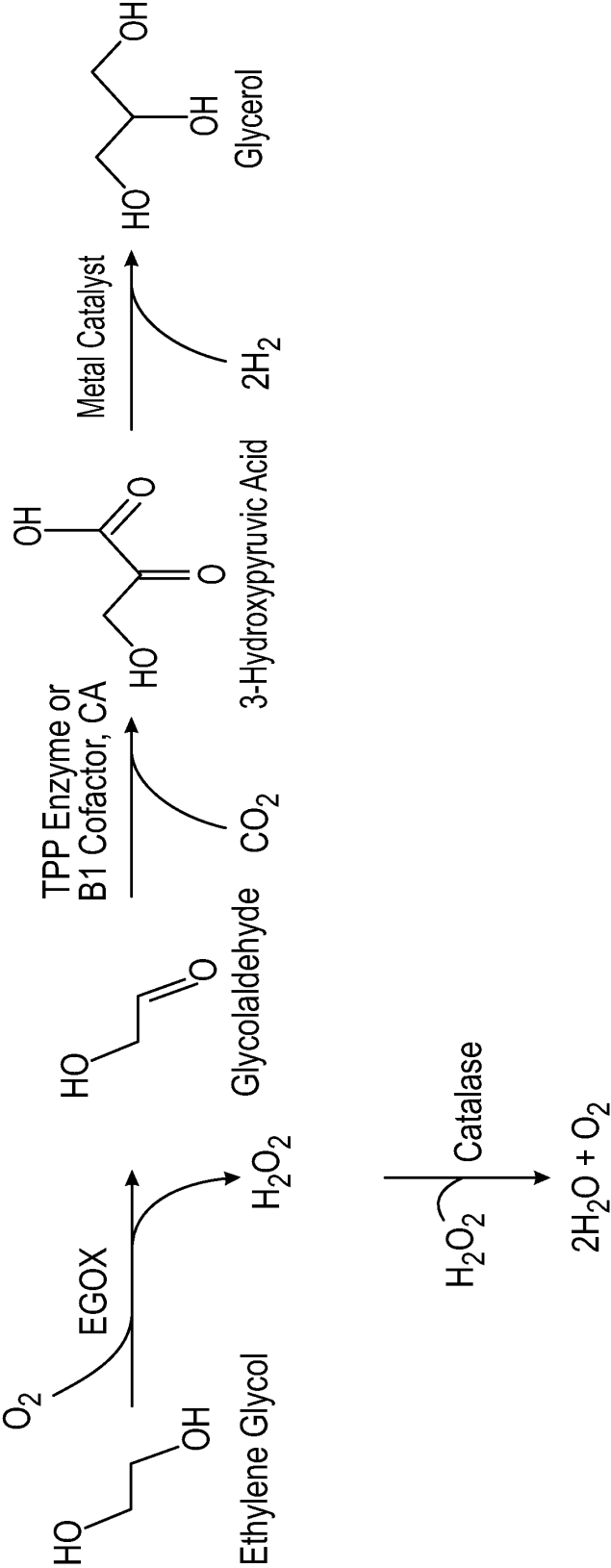


FIG. 18

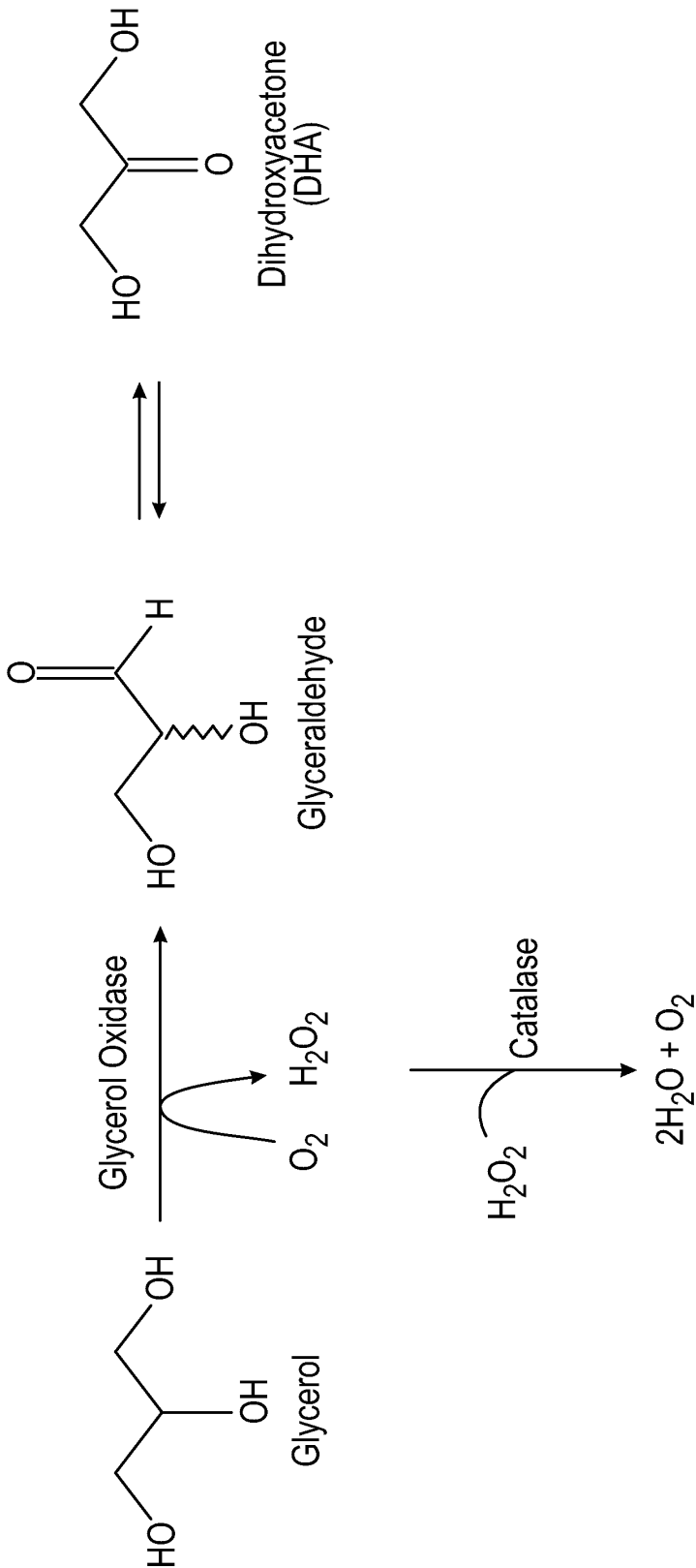


FIG. 19

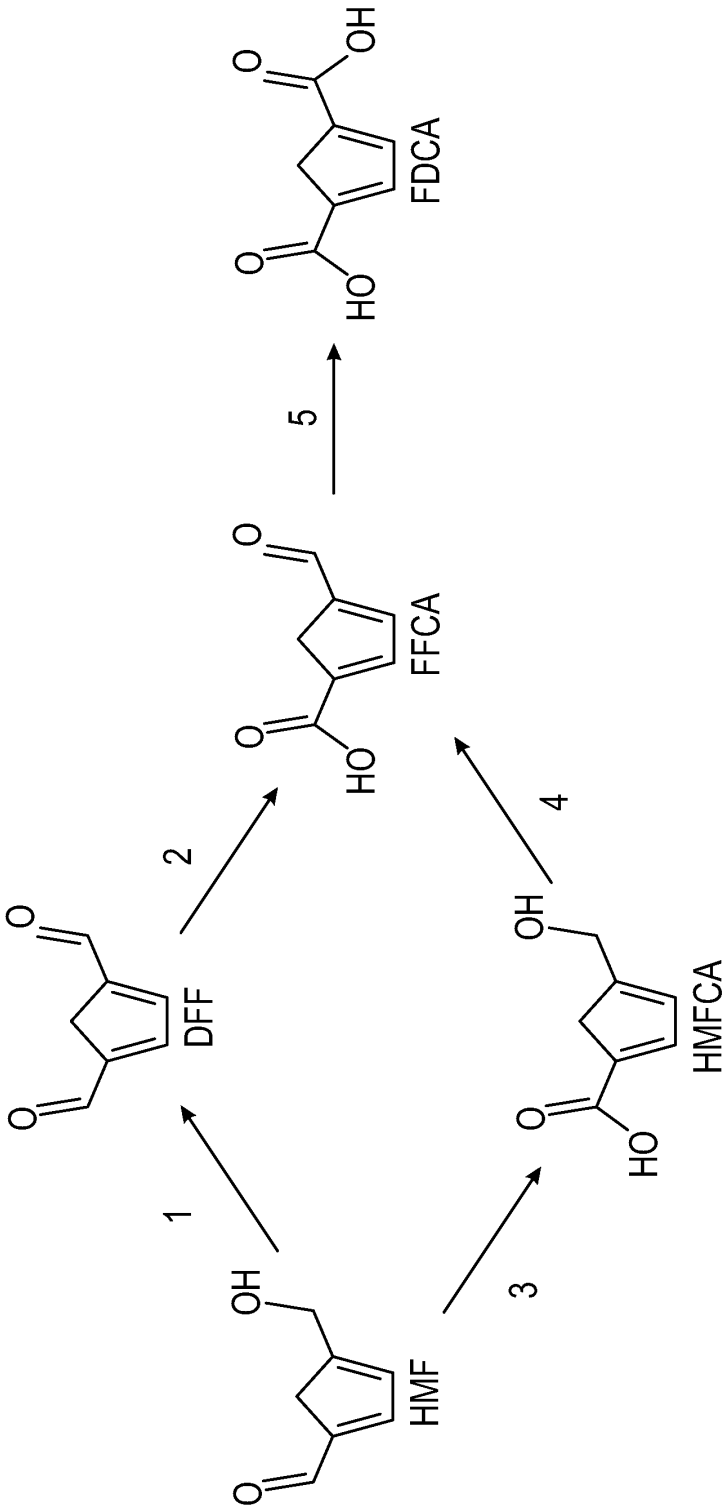
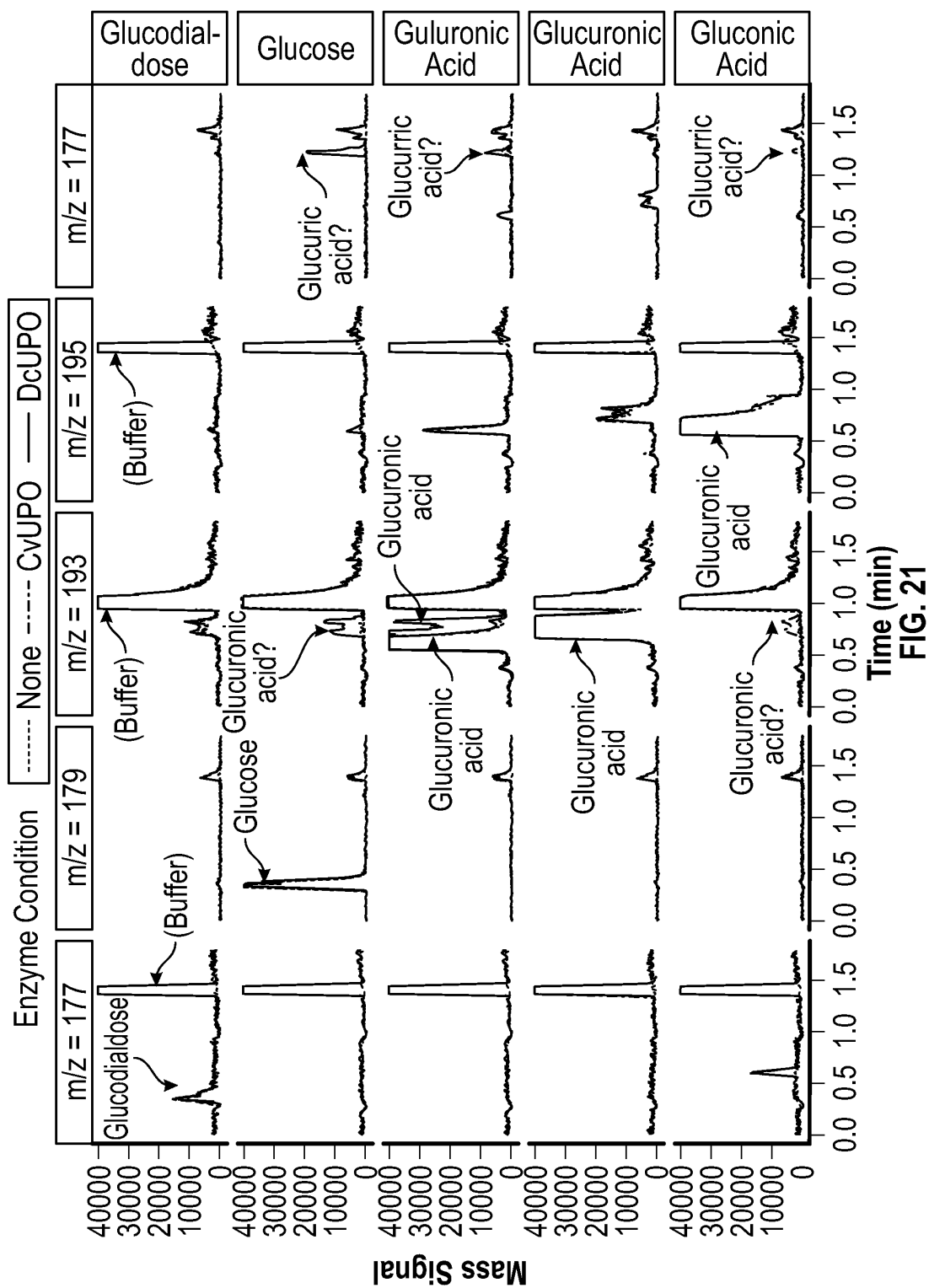


FIG. 20



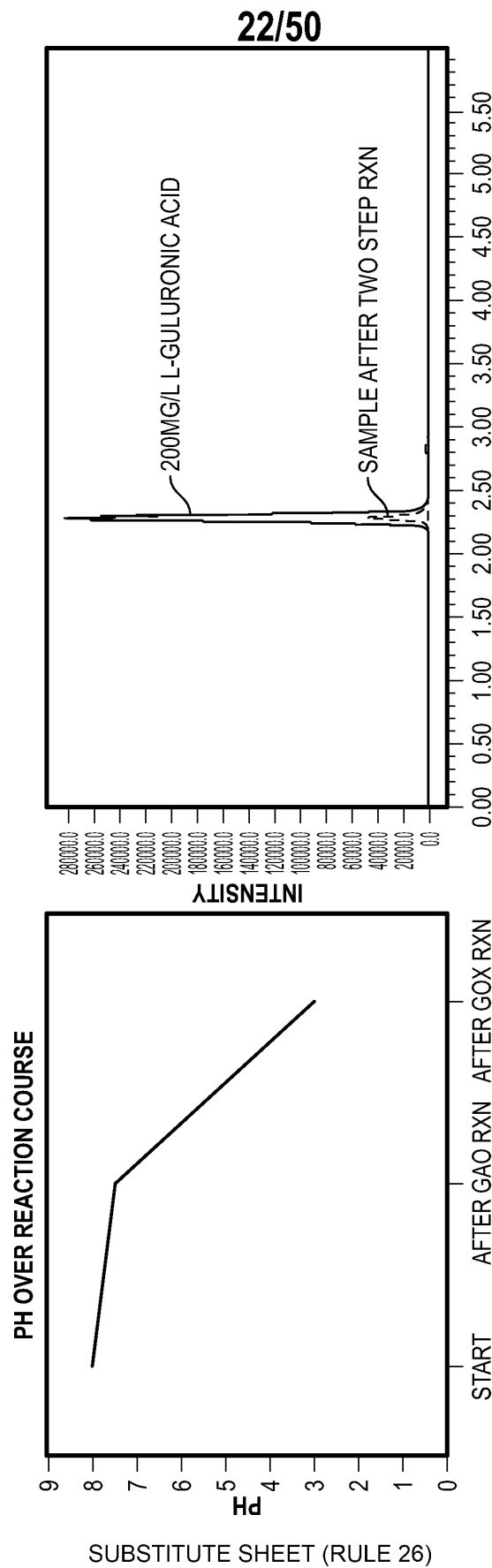


FIG. 22B

FIG. 22A

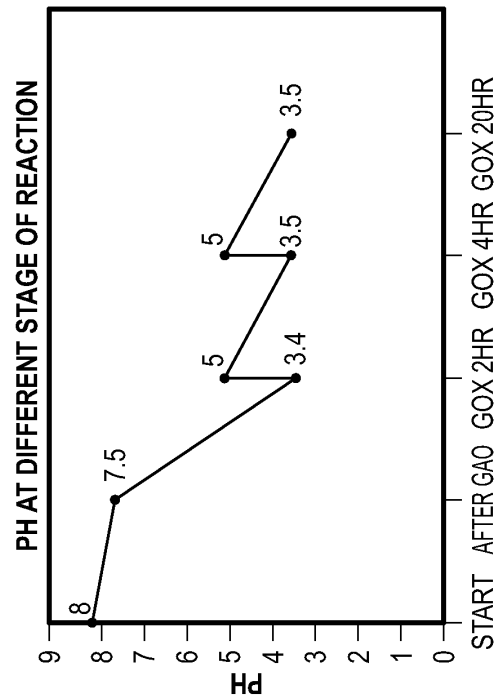


FIG. 23A

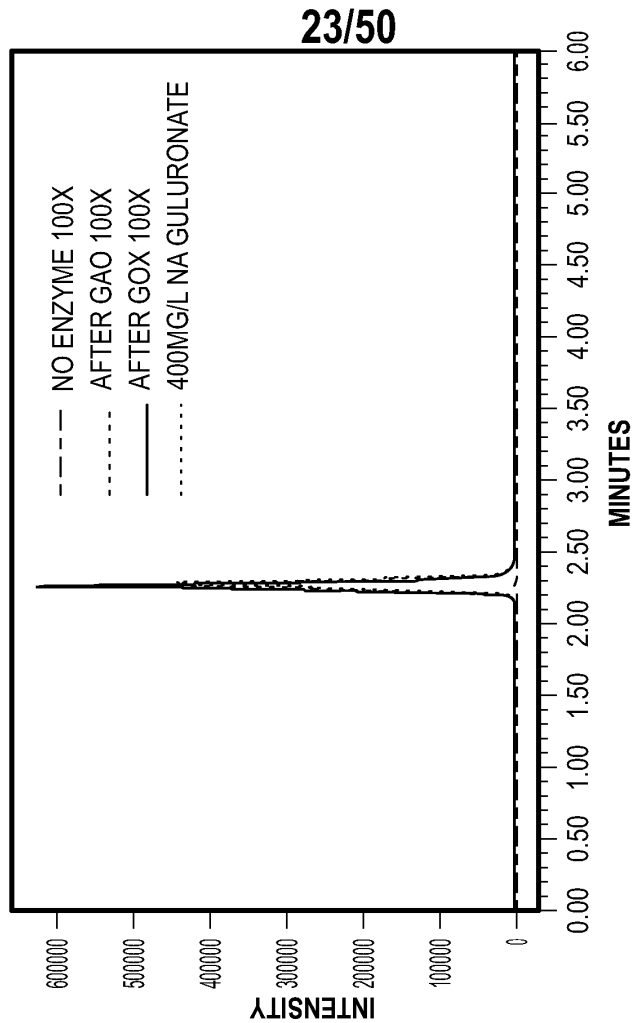
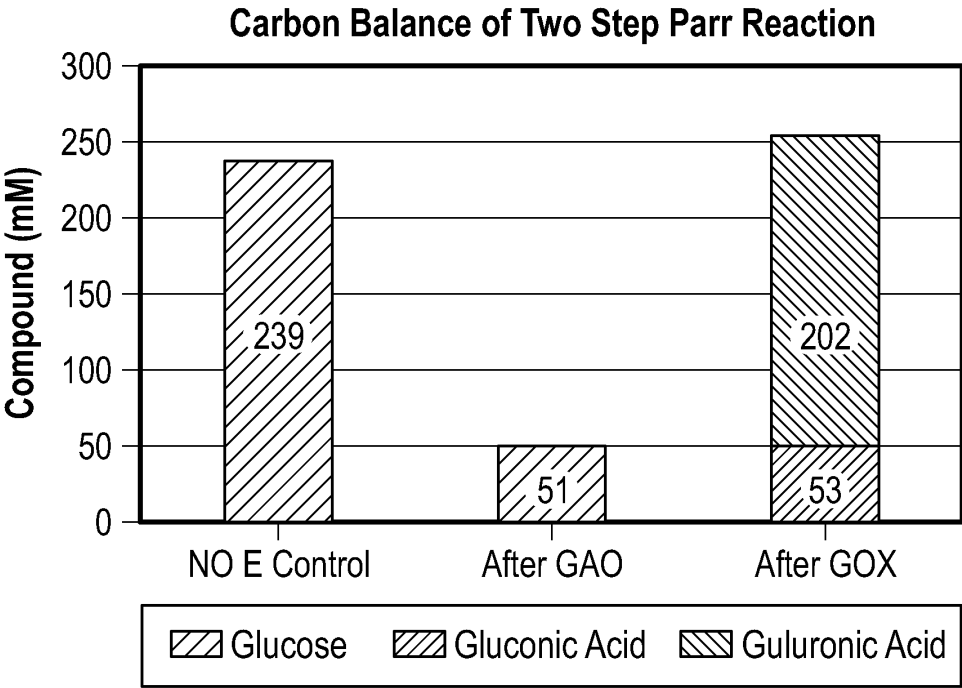


FIG. 23B



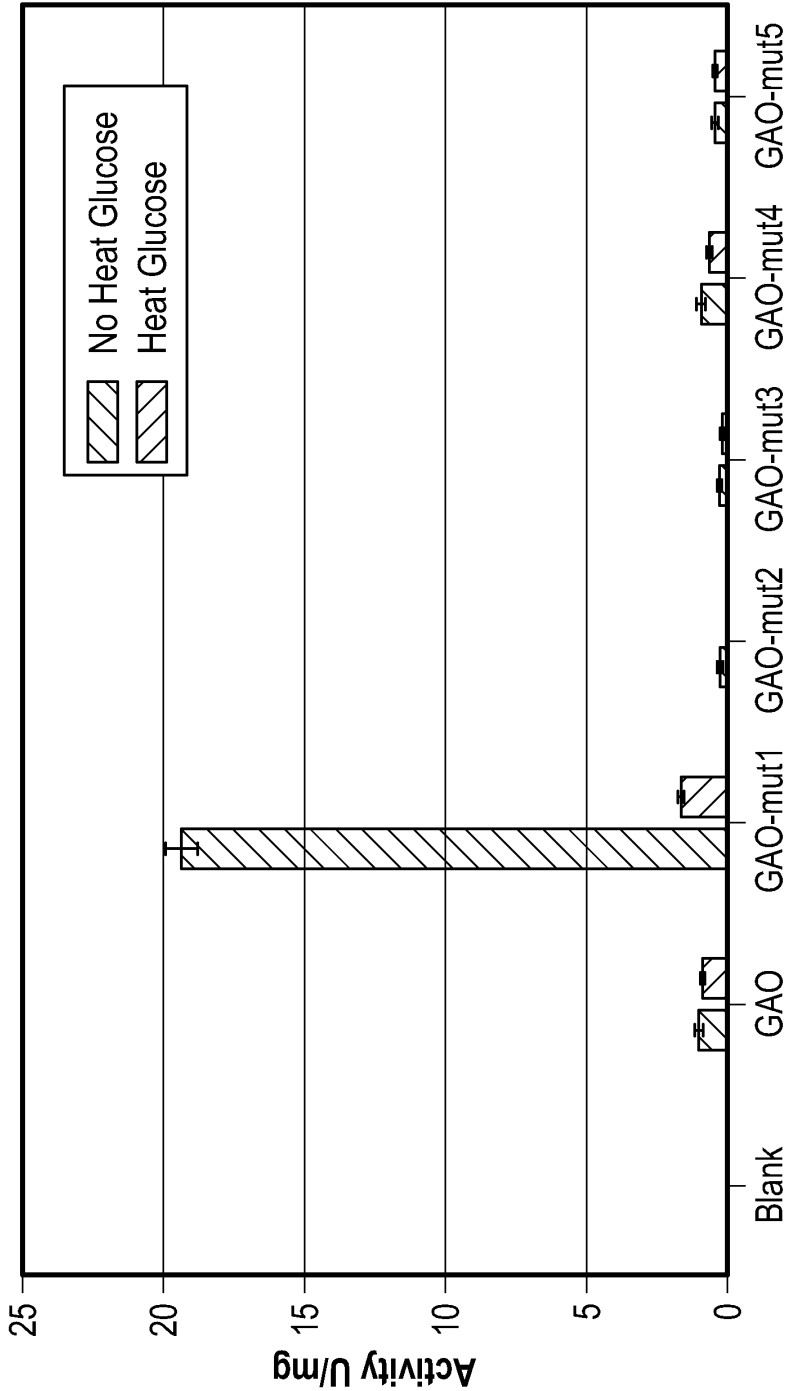


FIG. 25

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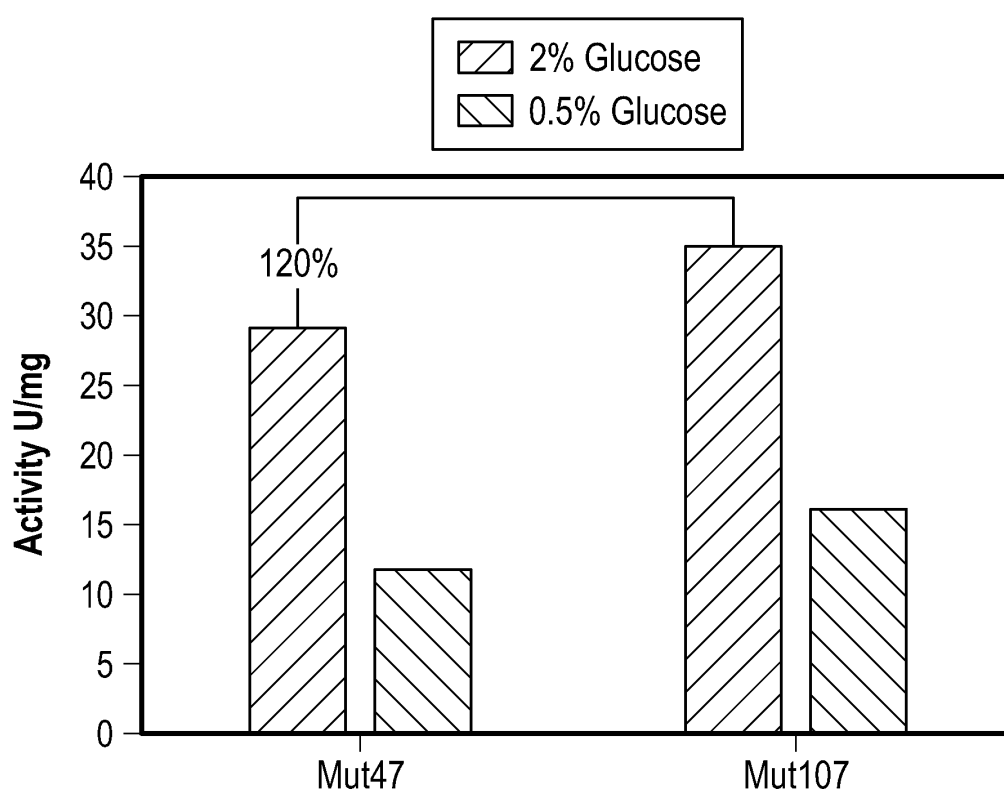
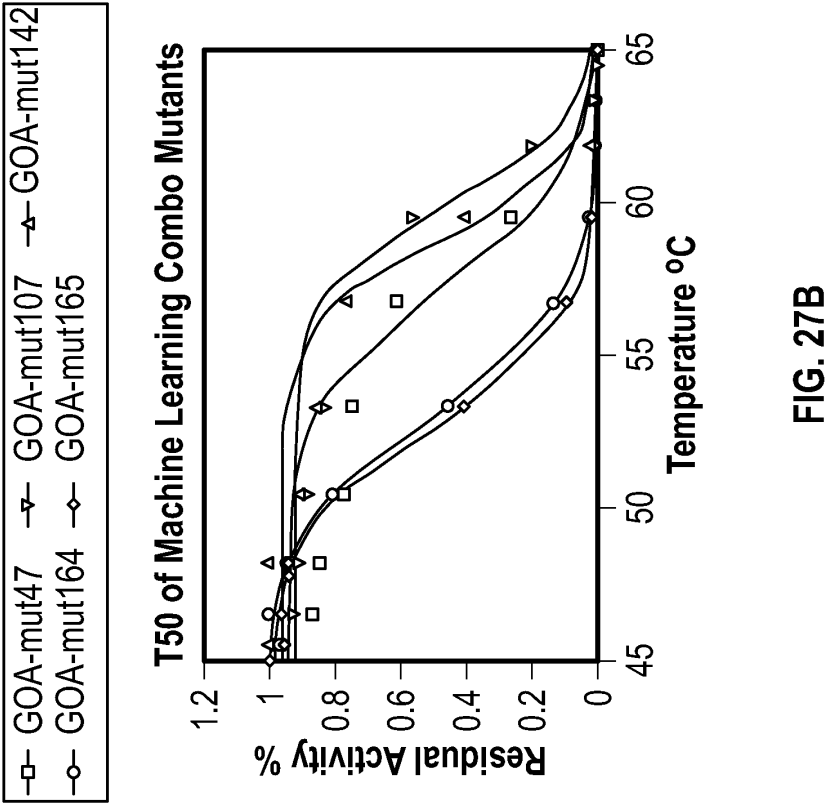


FIG. 26

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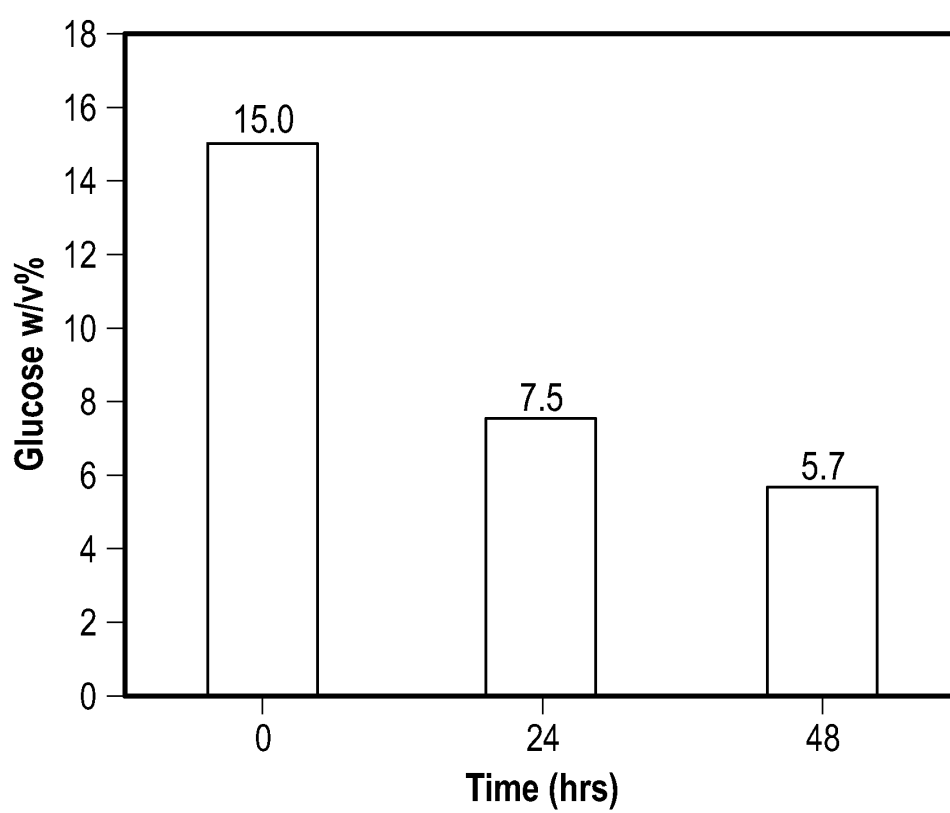
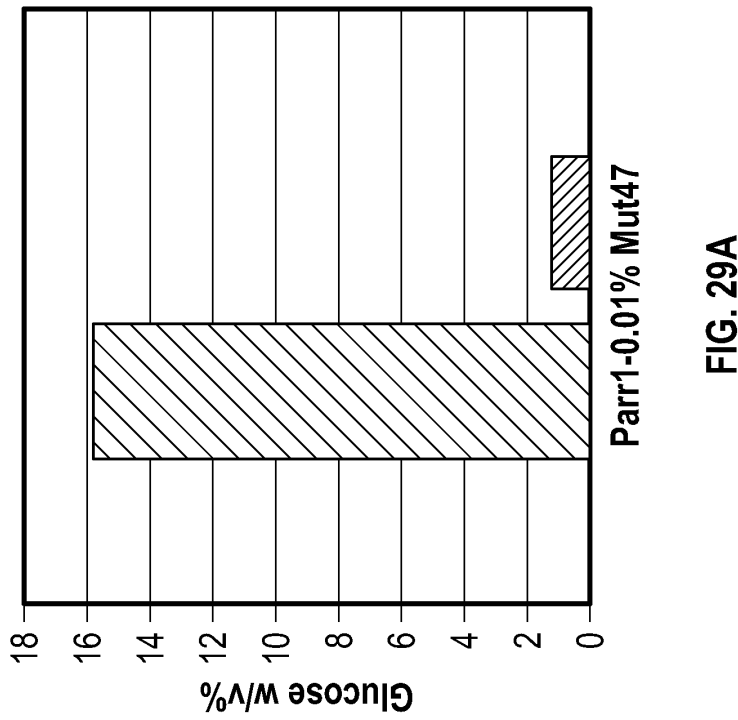
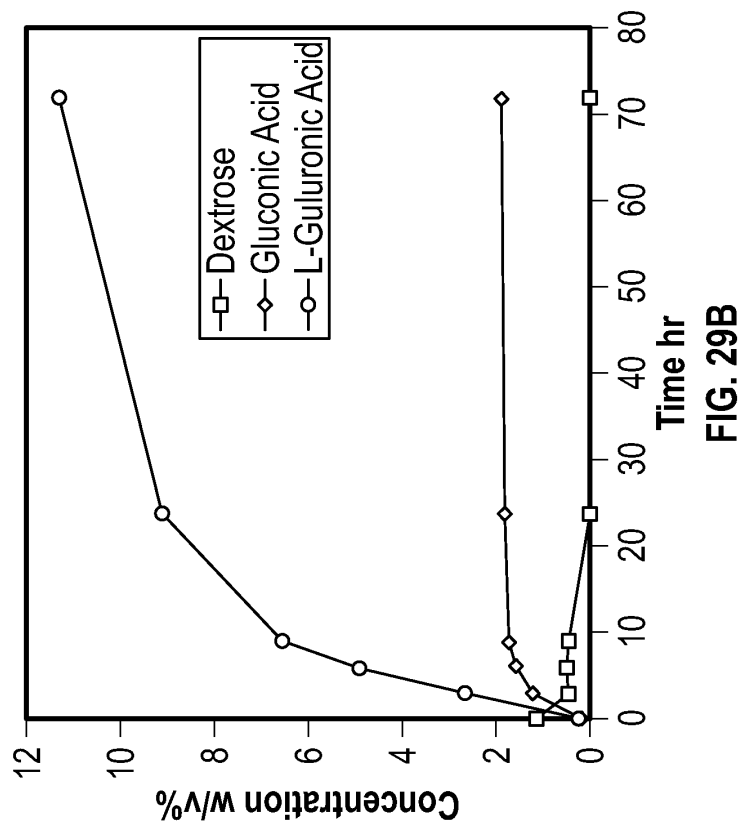


FIG. 28



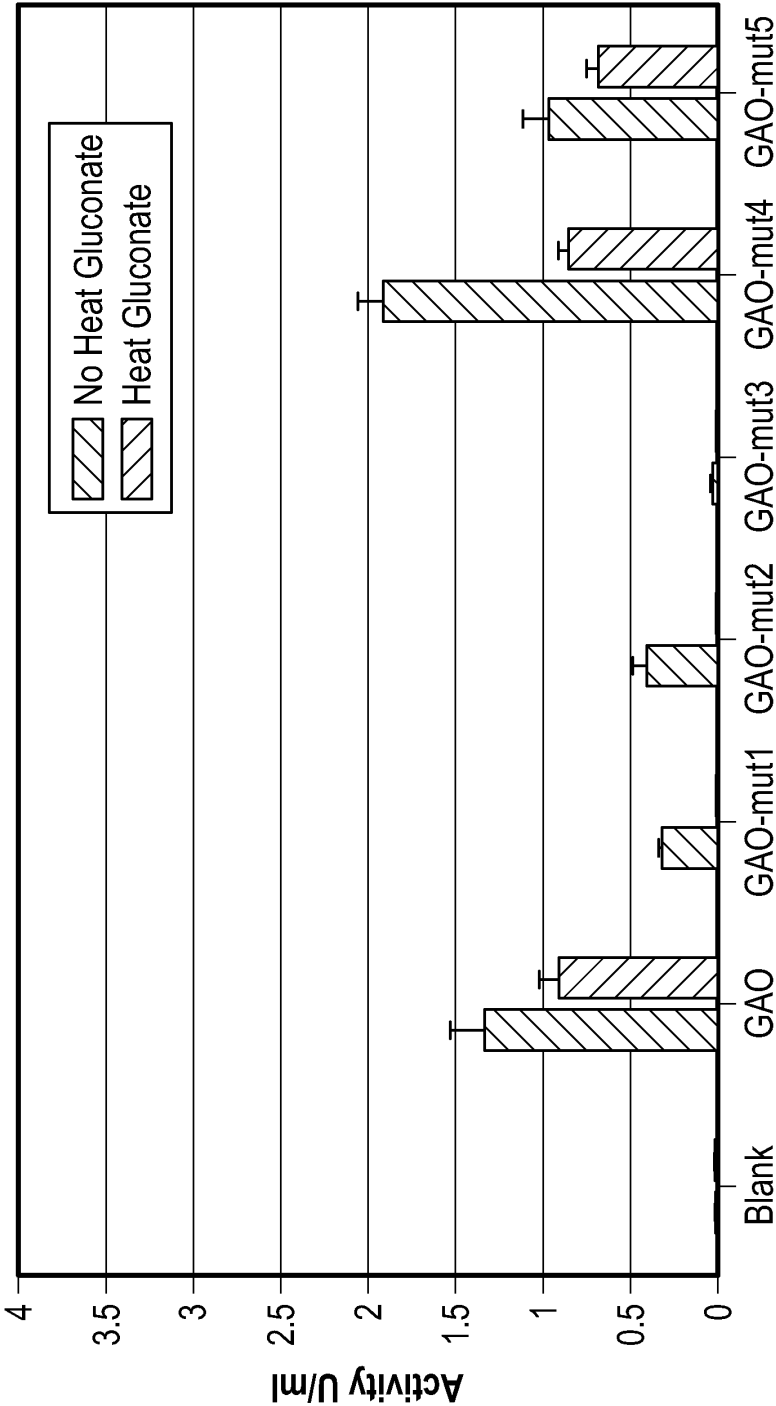


FIG. 30A

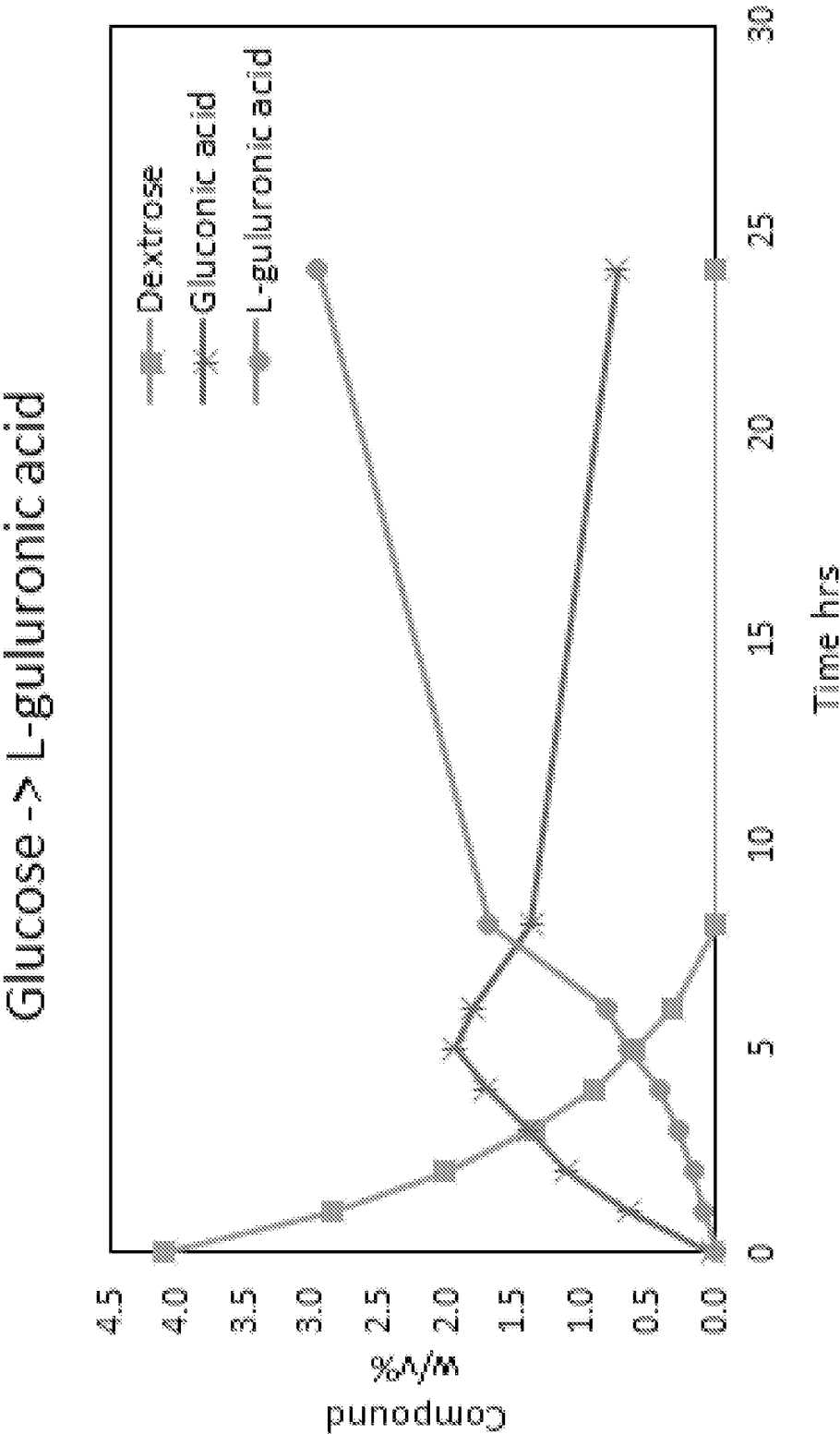


FIG.30B

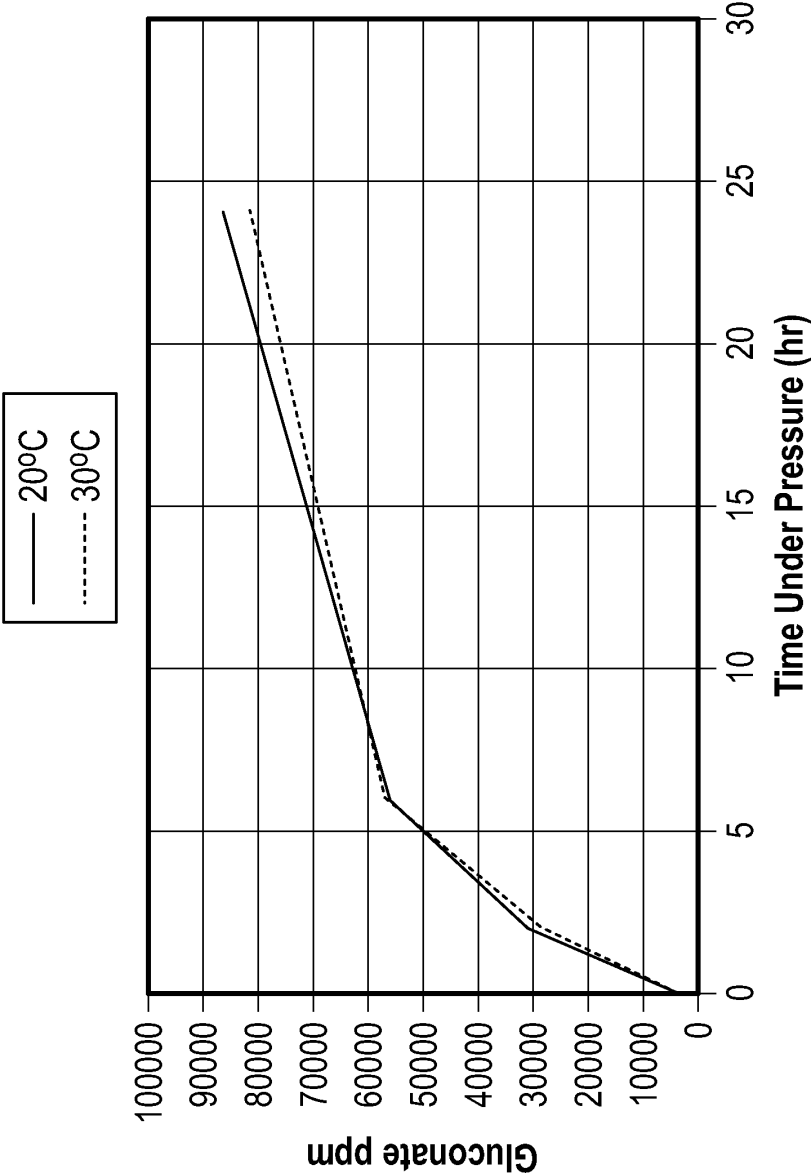
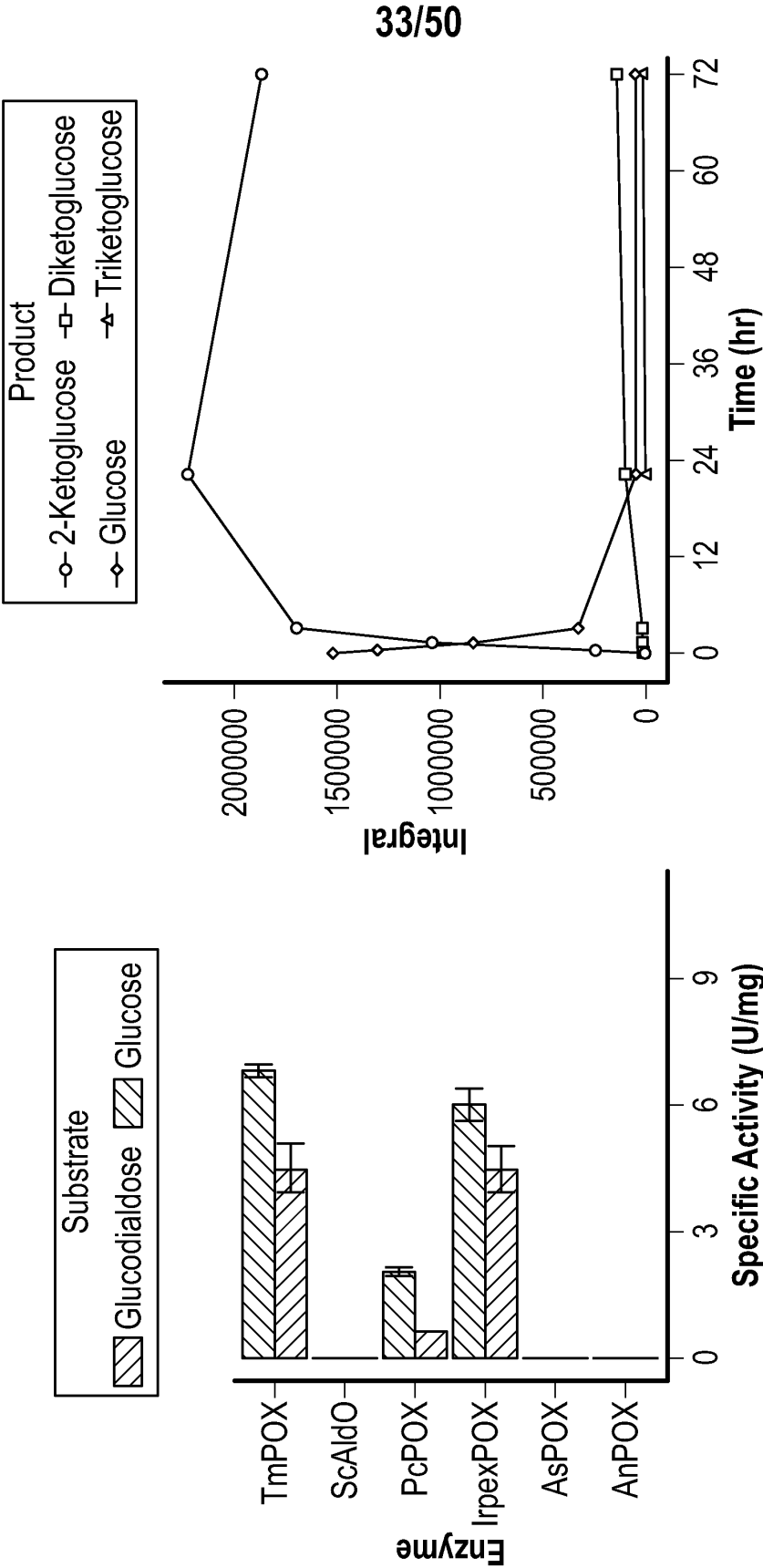
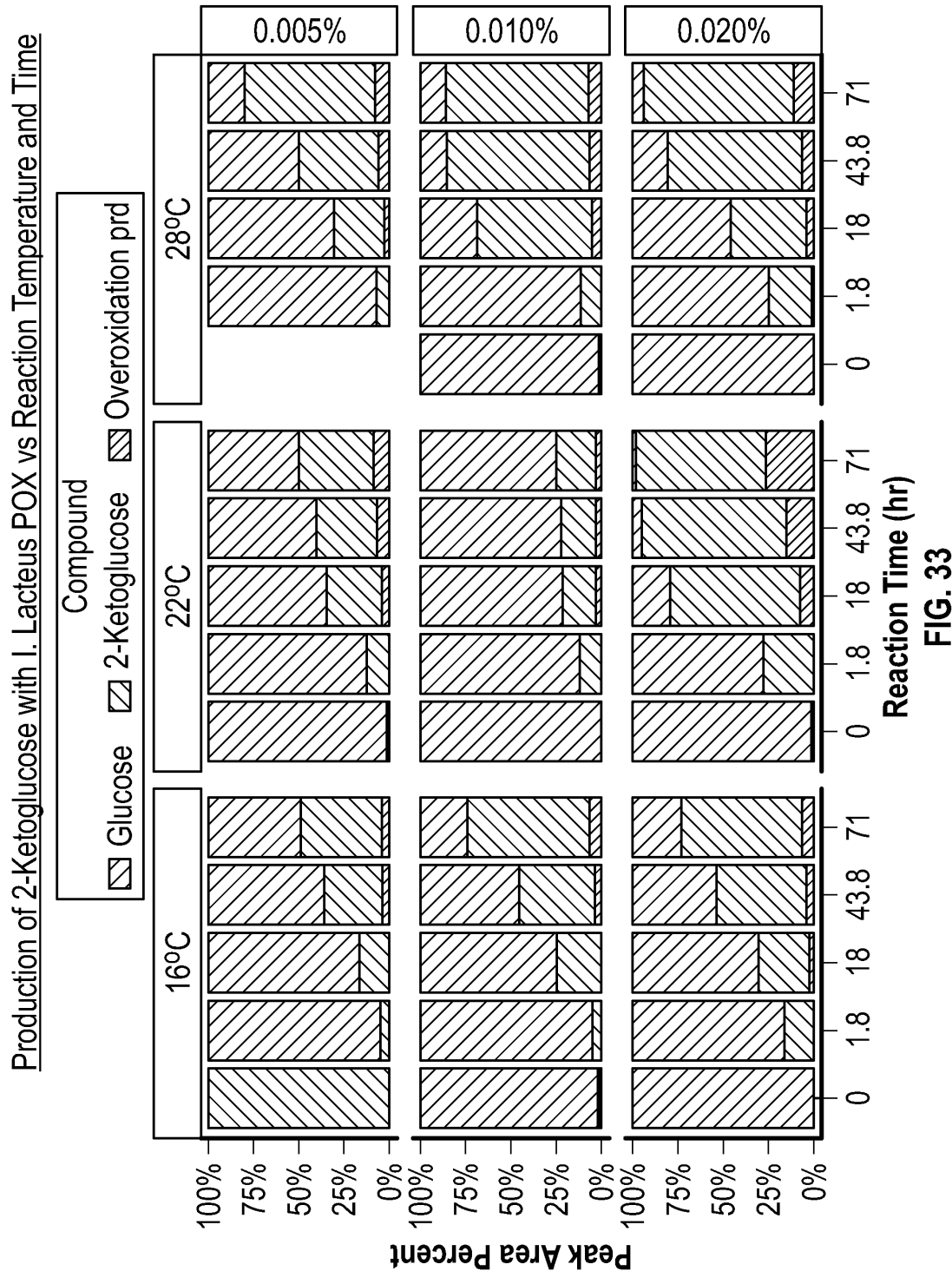


FIG. 31



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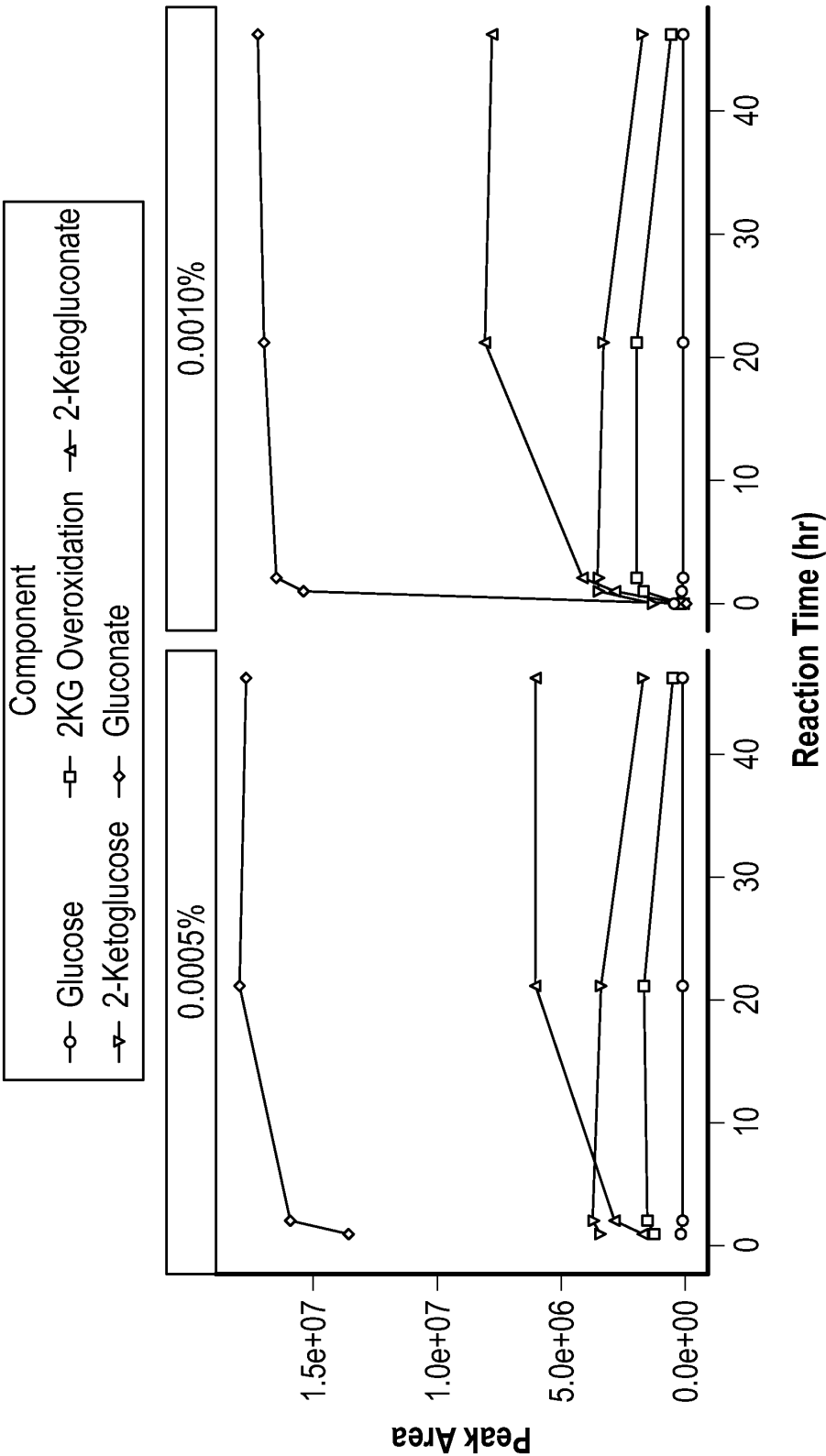


FIG. 34

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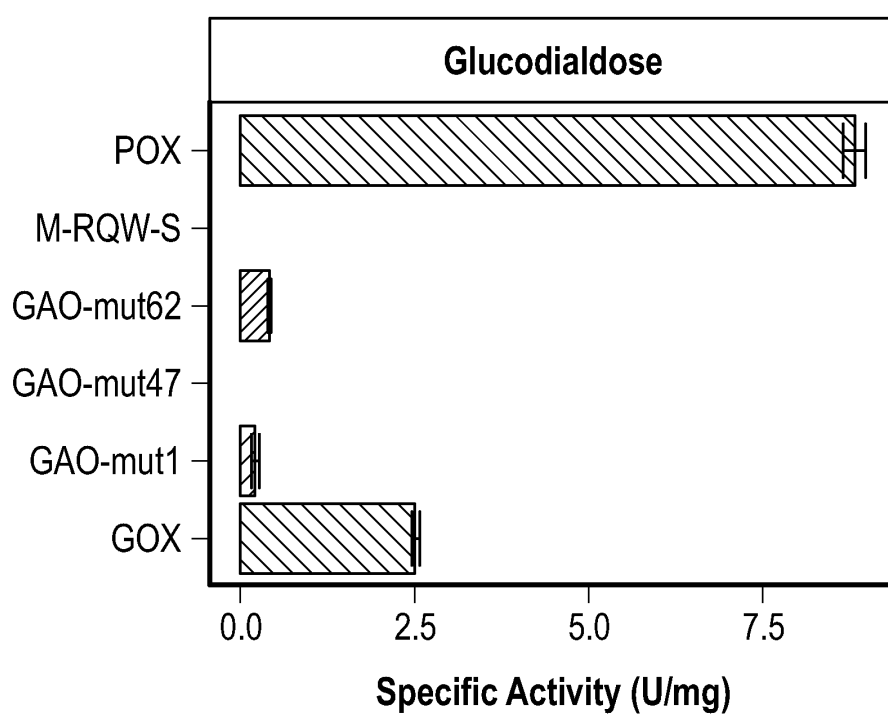


FIG. 35

Production of 5-Keto-4-Deoxyglucarate from Glucarate using a GlucD Catalyst

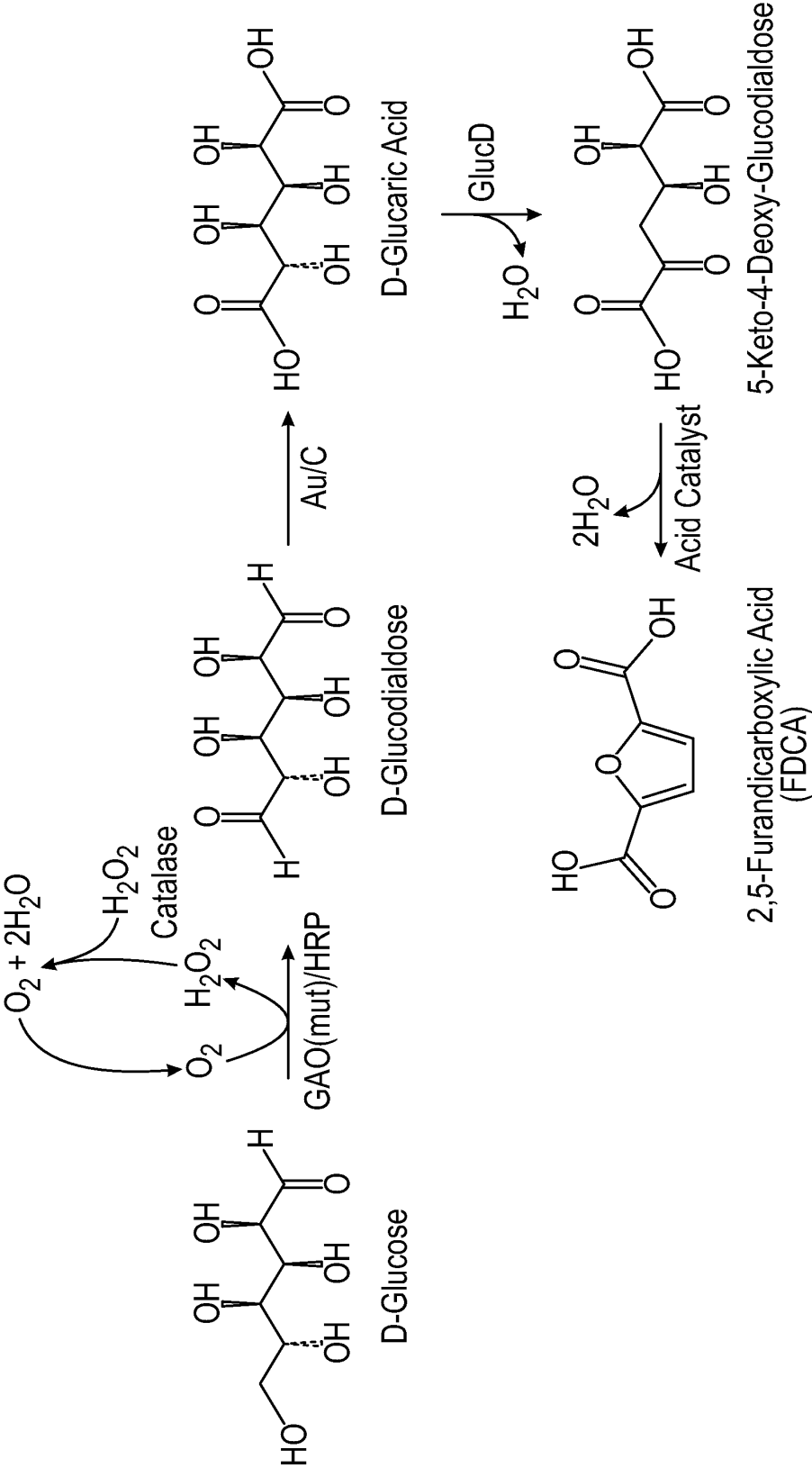


FIG. 36

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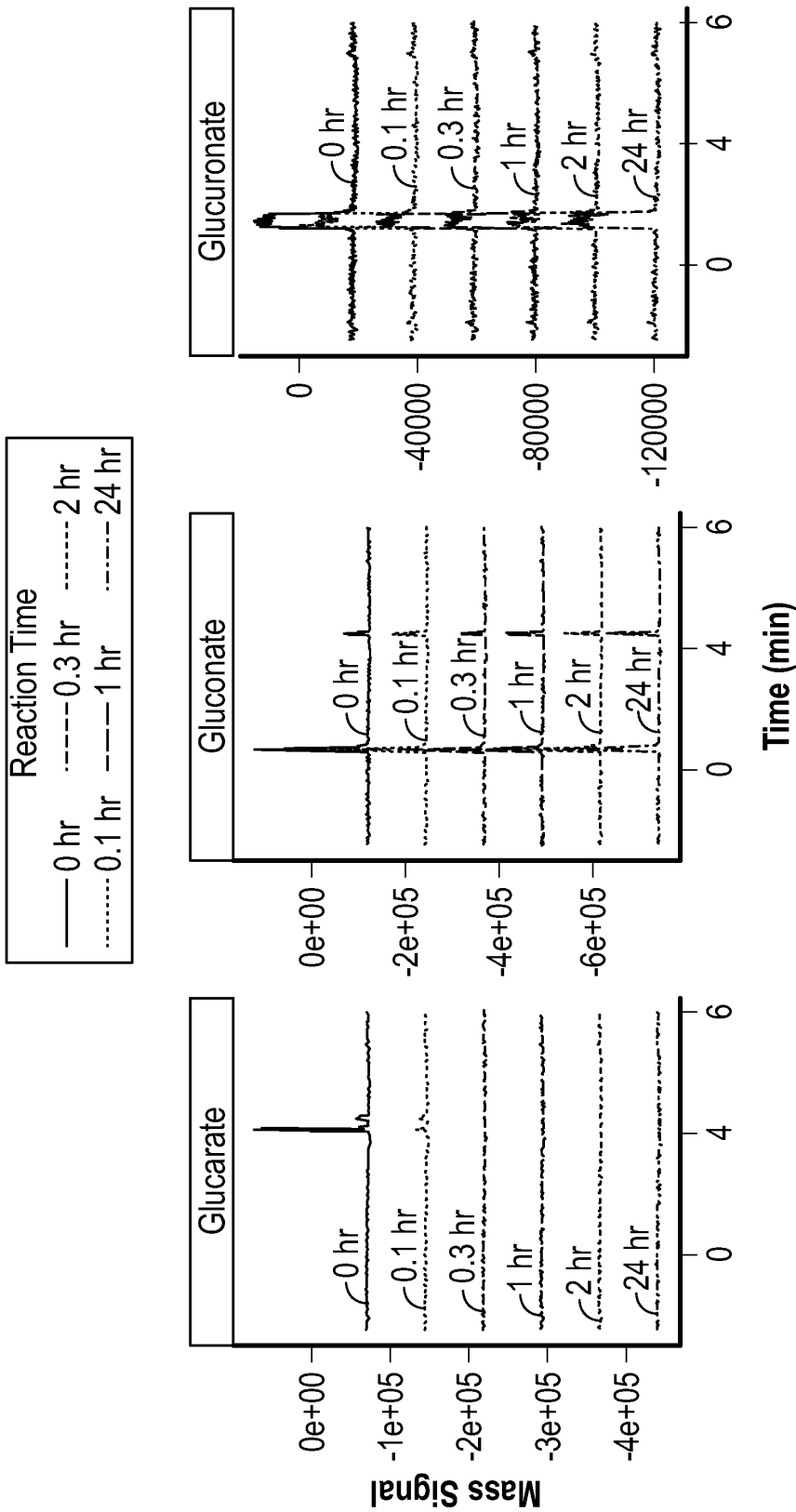


FIG. 37

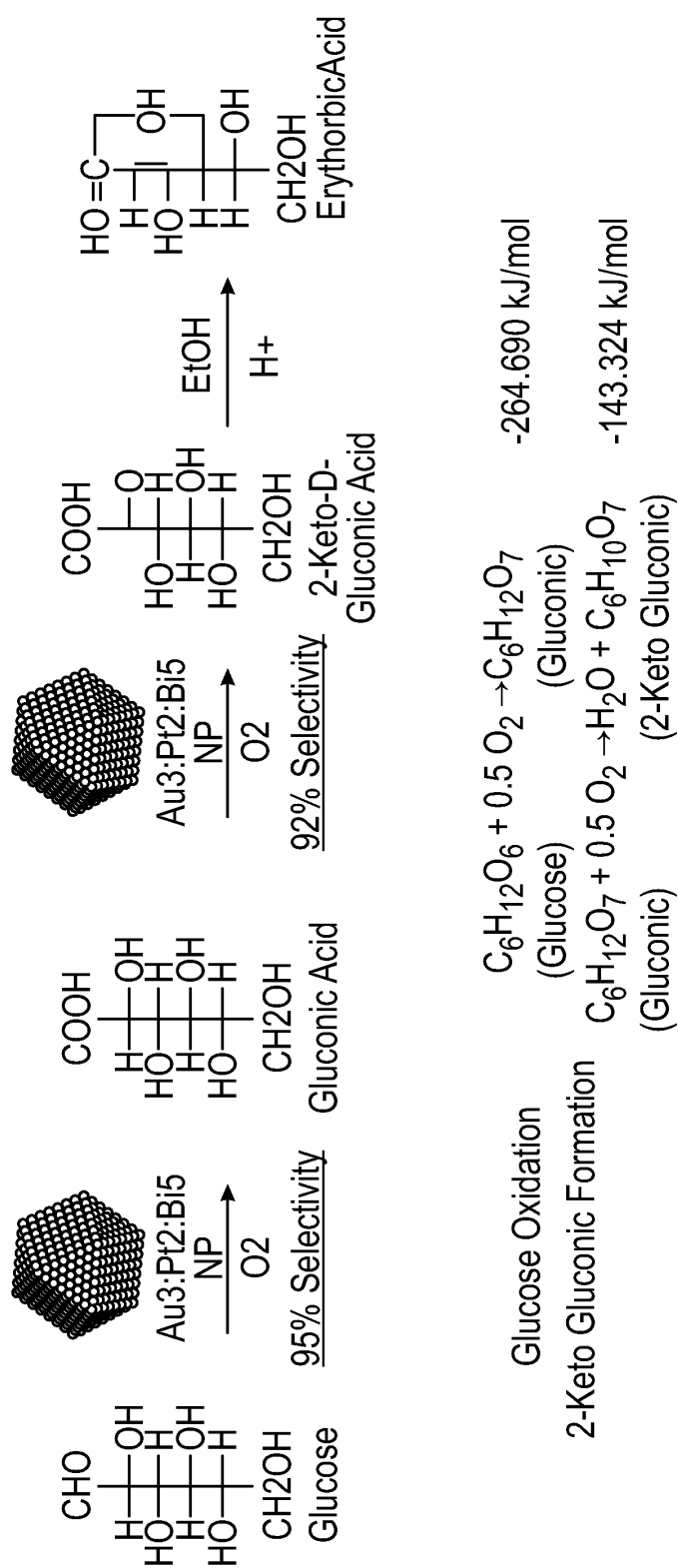
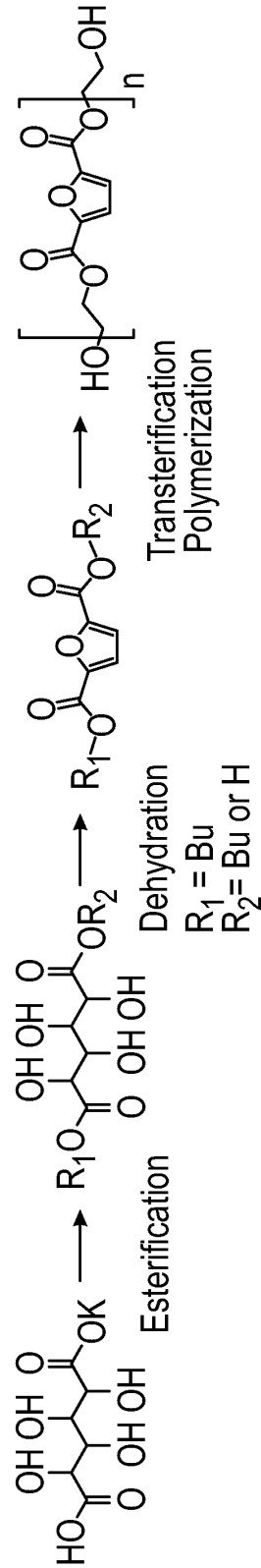


FIG. 38

• Reaction of K-GA to FDCA



• Glucarate Diesters to FDCA

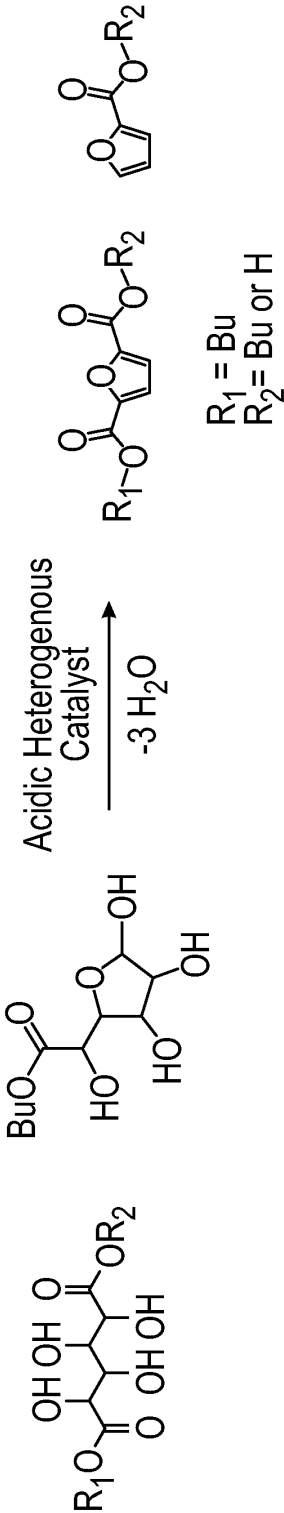


FIG. 39

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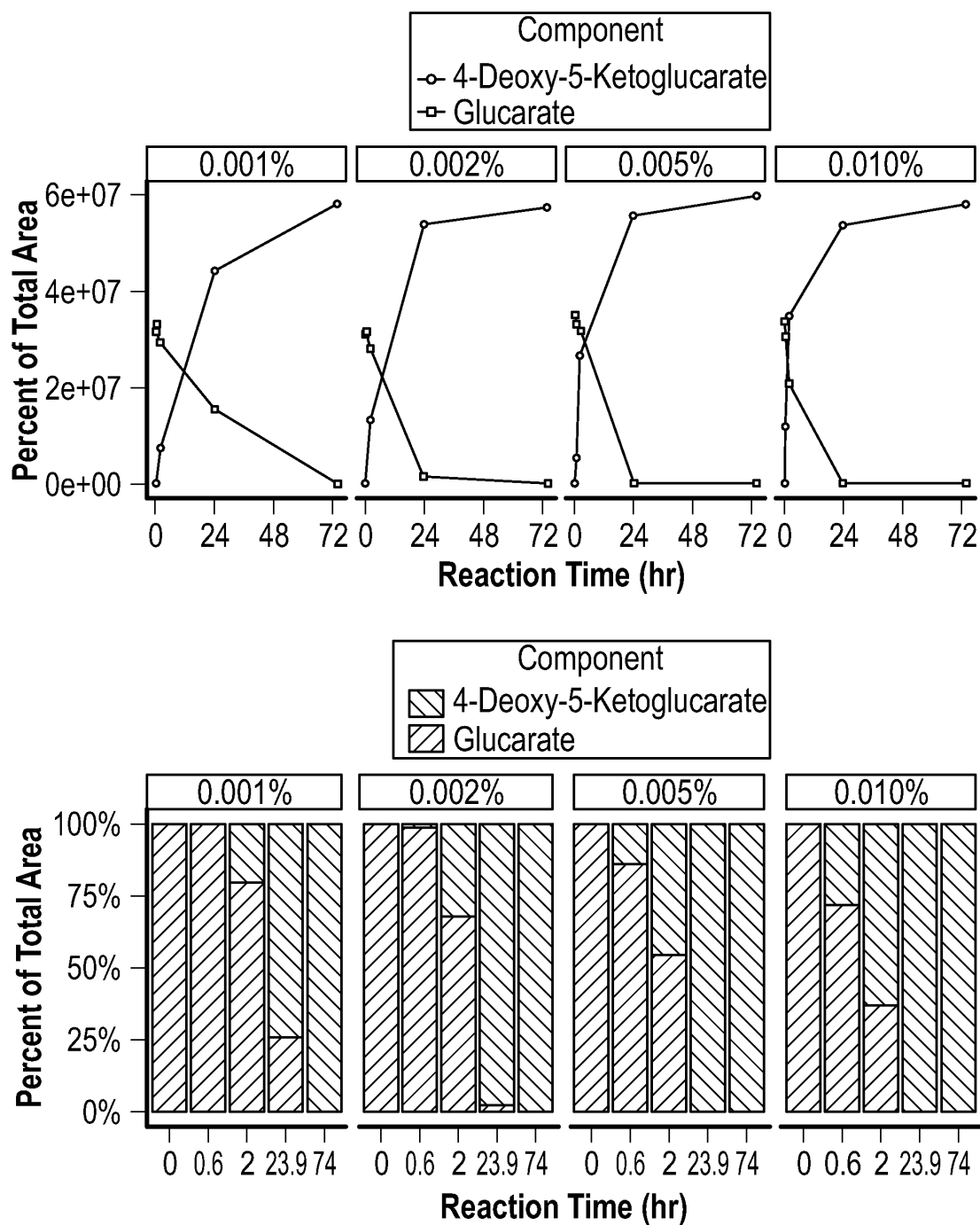


FIG. 40

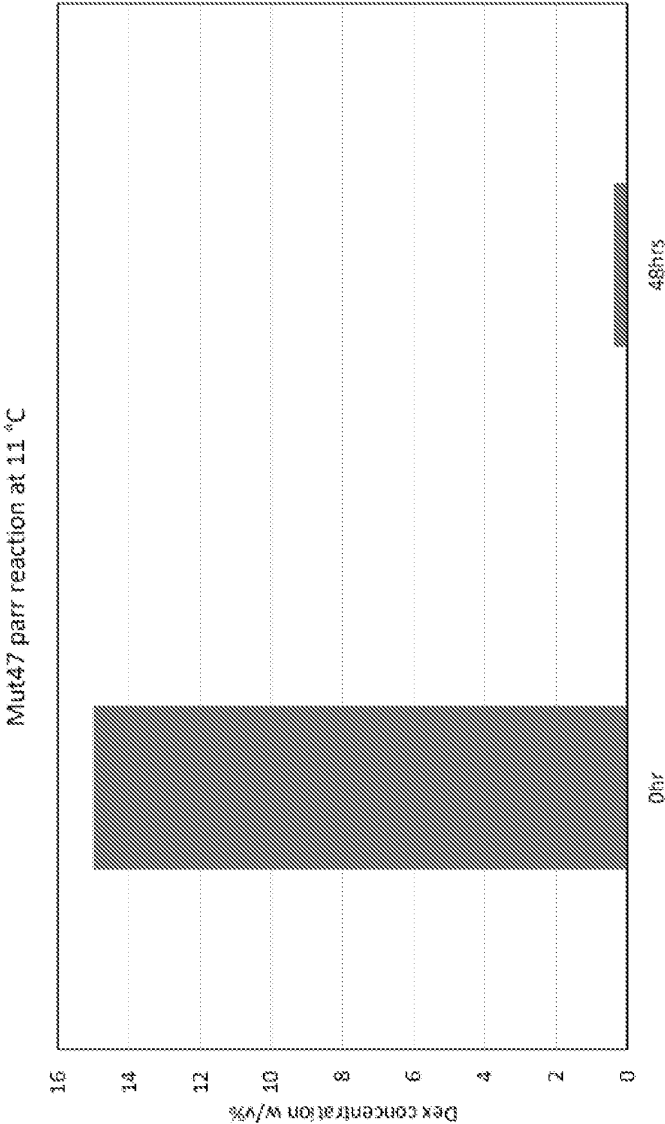


FIG. 41

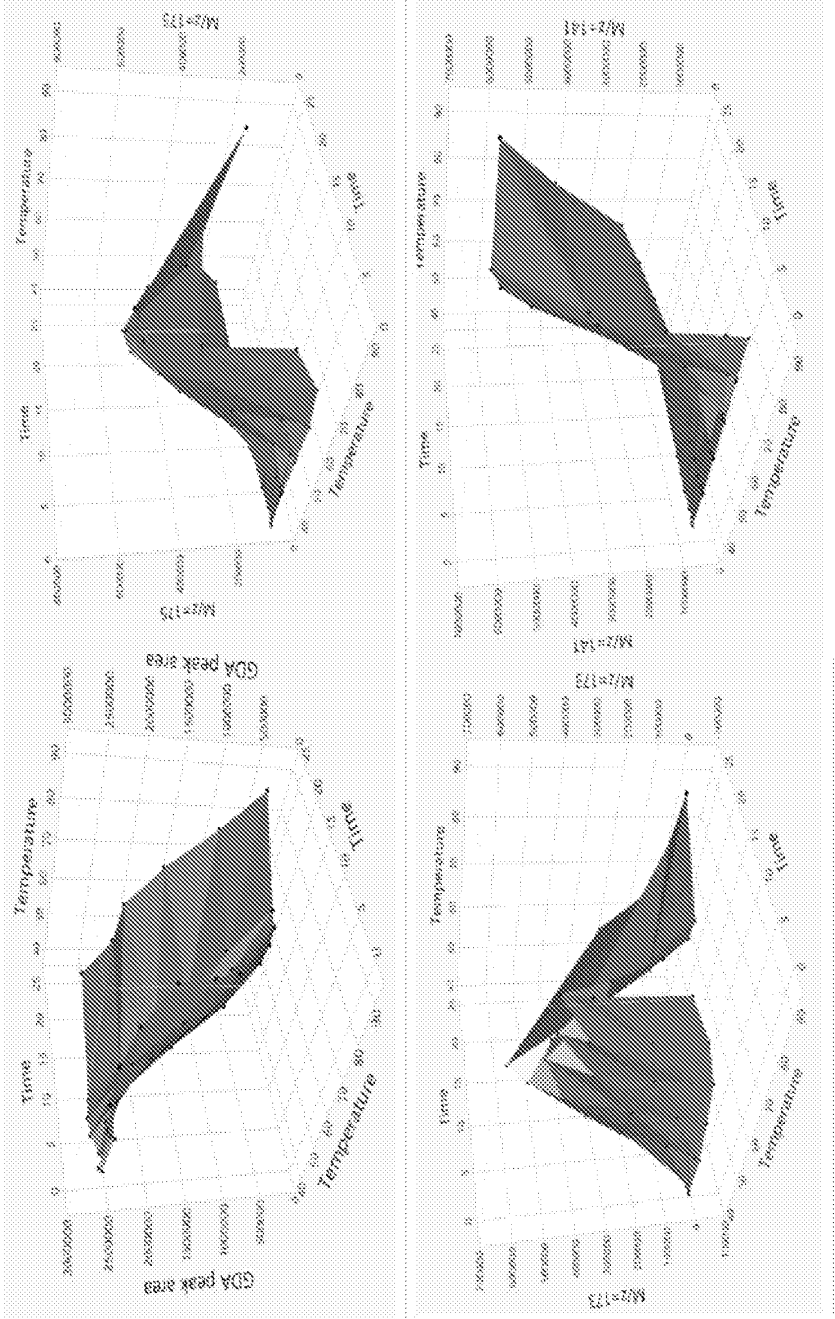
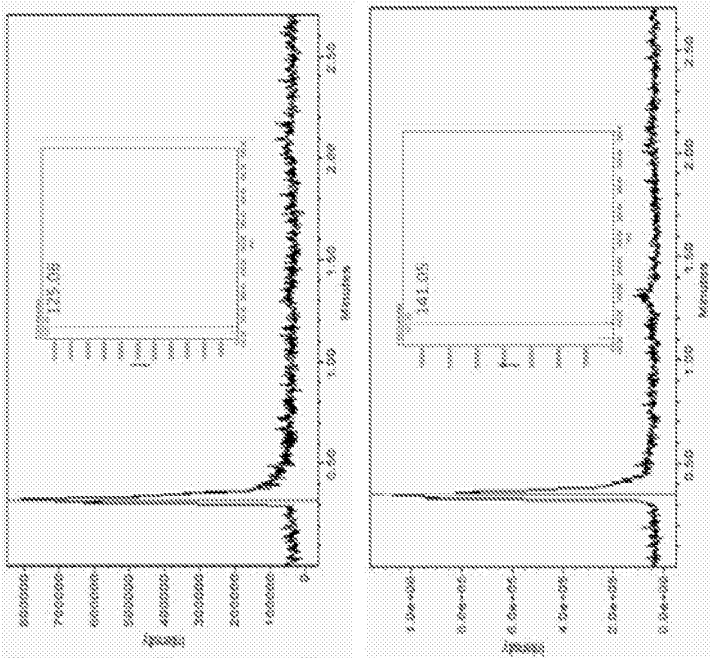


FIG 42



B

	No stain	CAM	KMnO4
EtOAc			
EtOAc:Hex 2:1			

A

FIG. 43

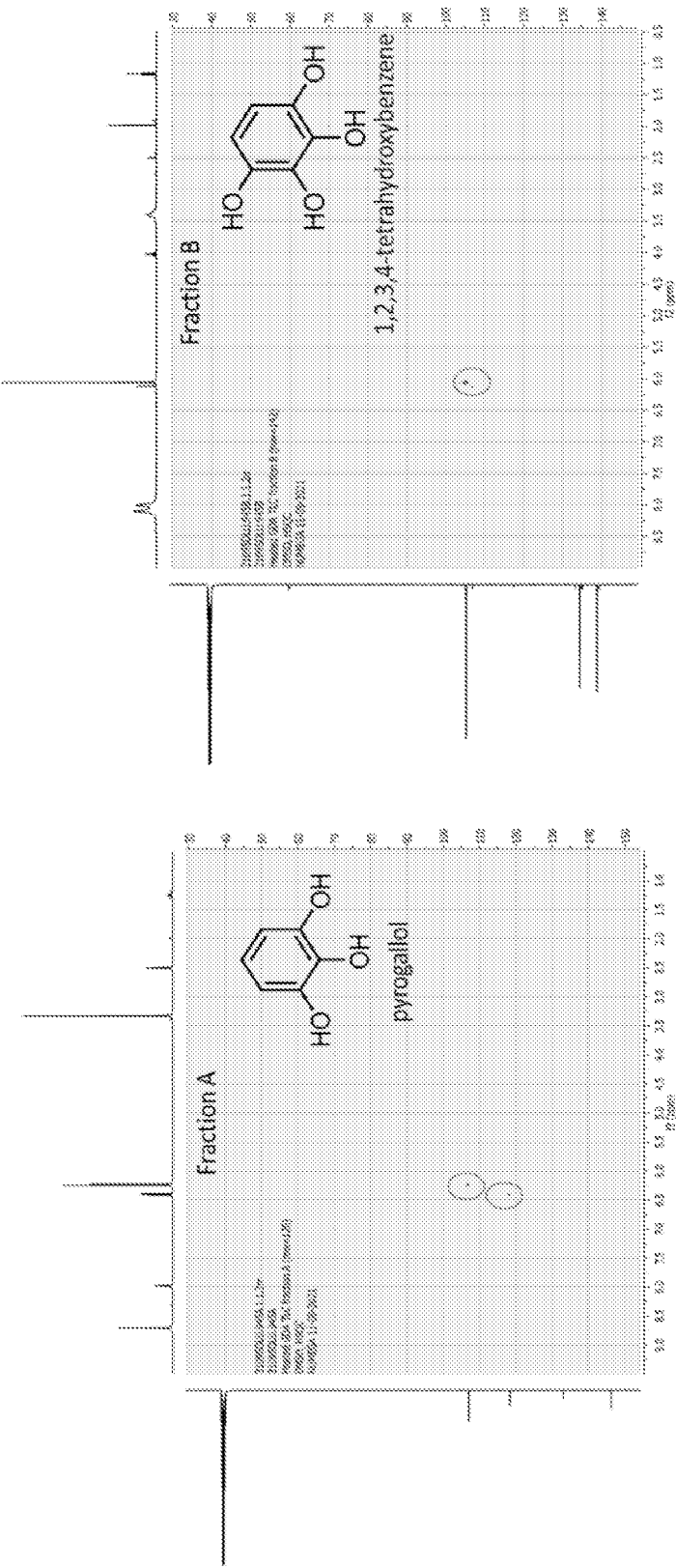


FIG. 44

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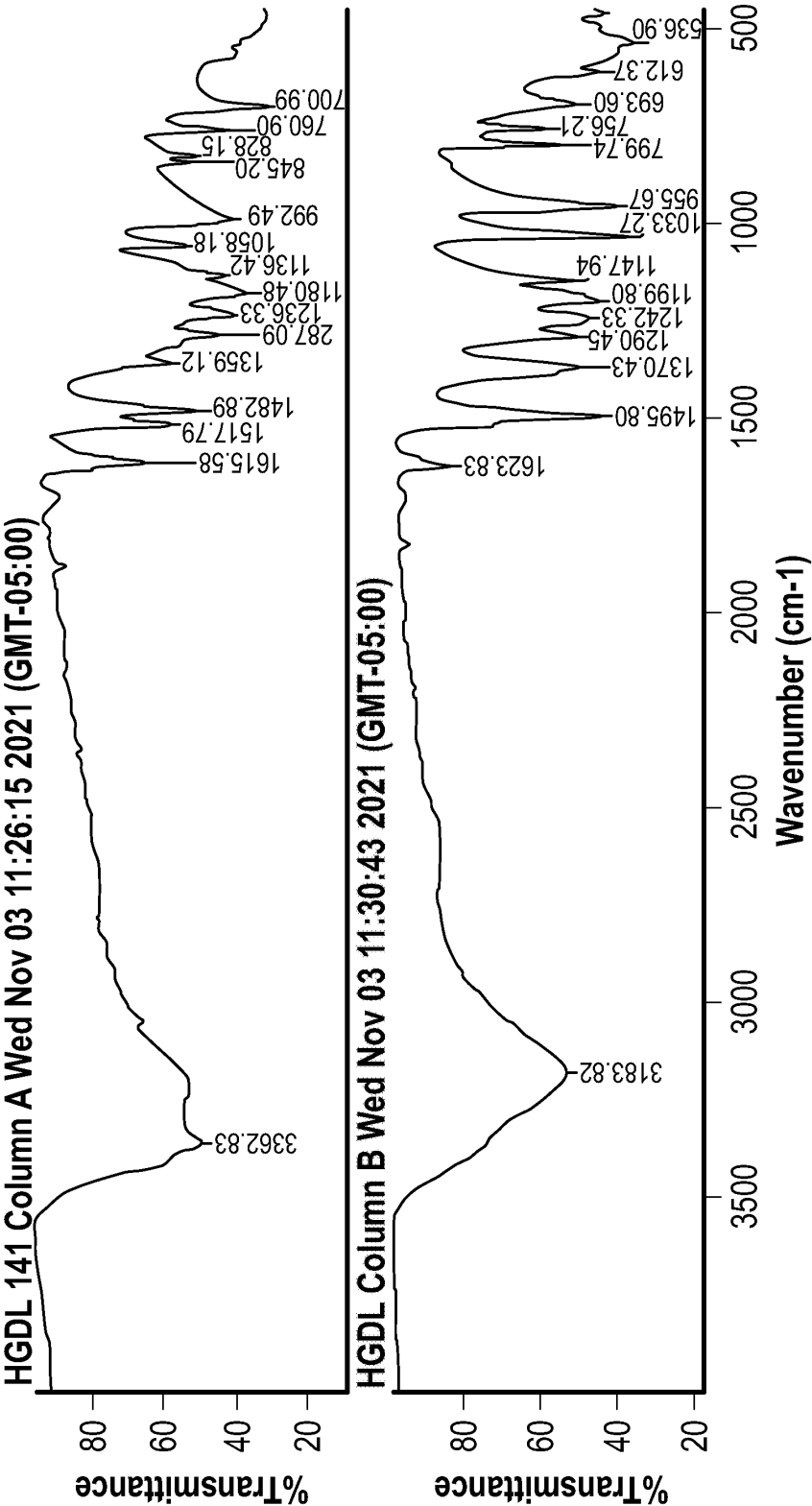


FIG. 45

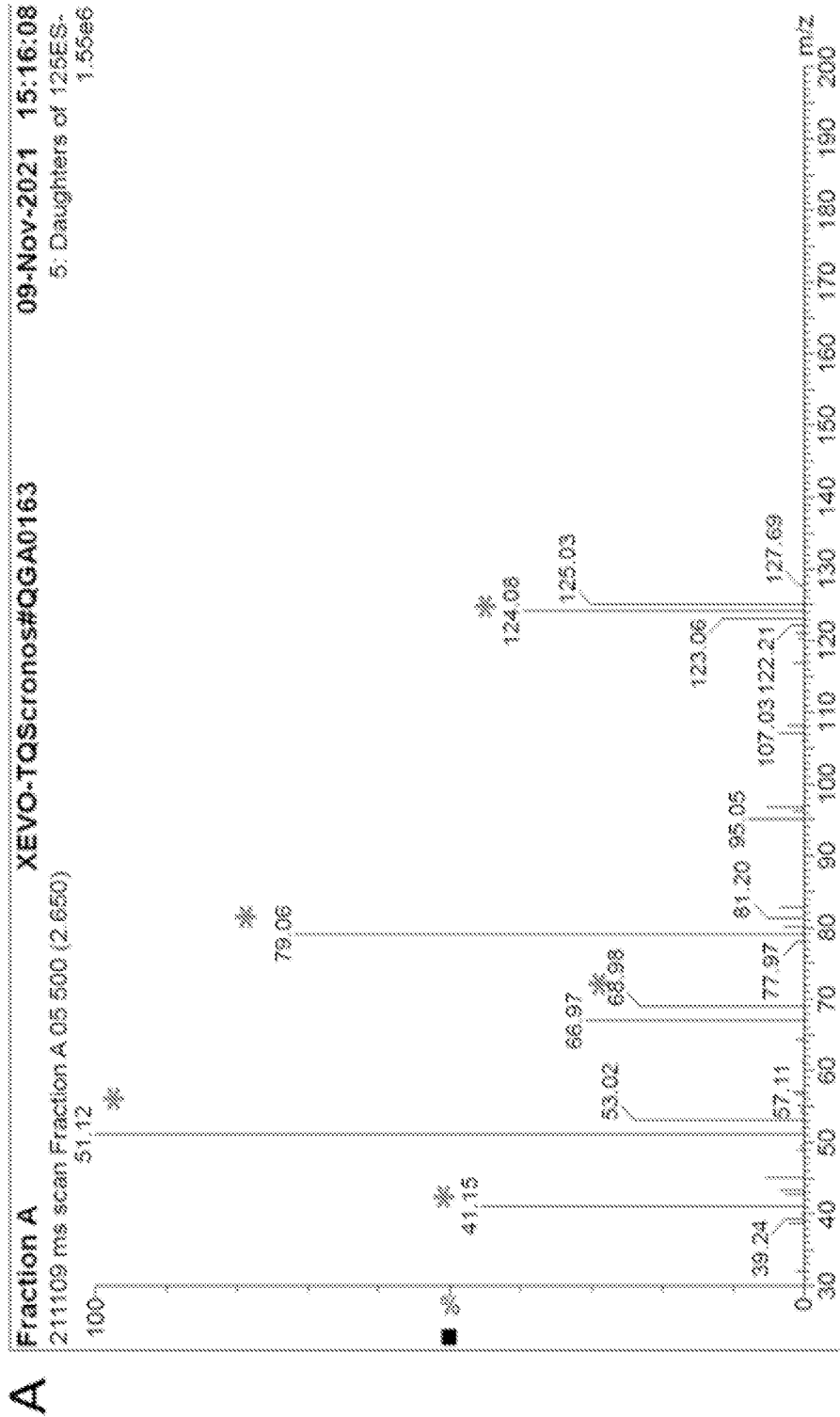


FIG. 46

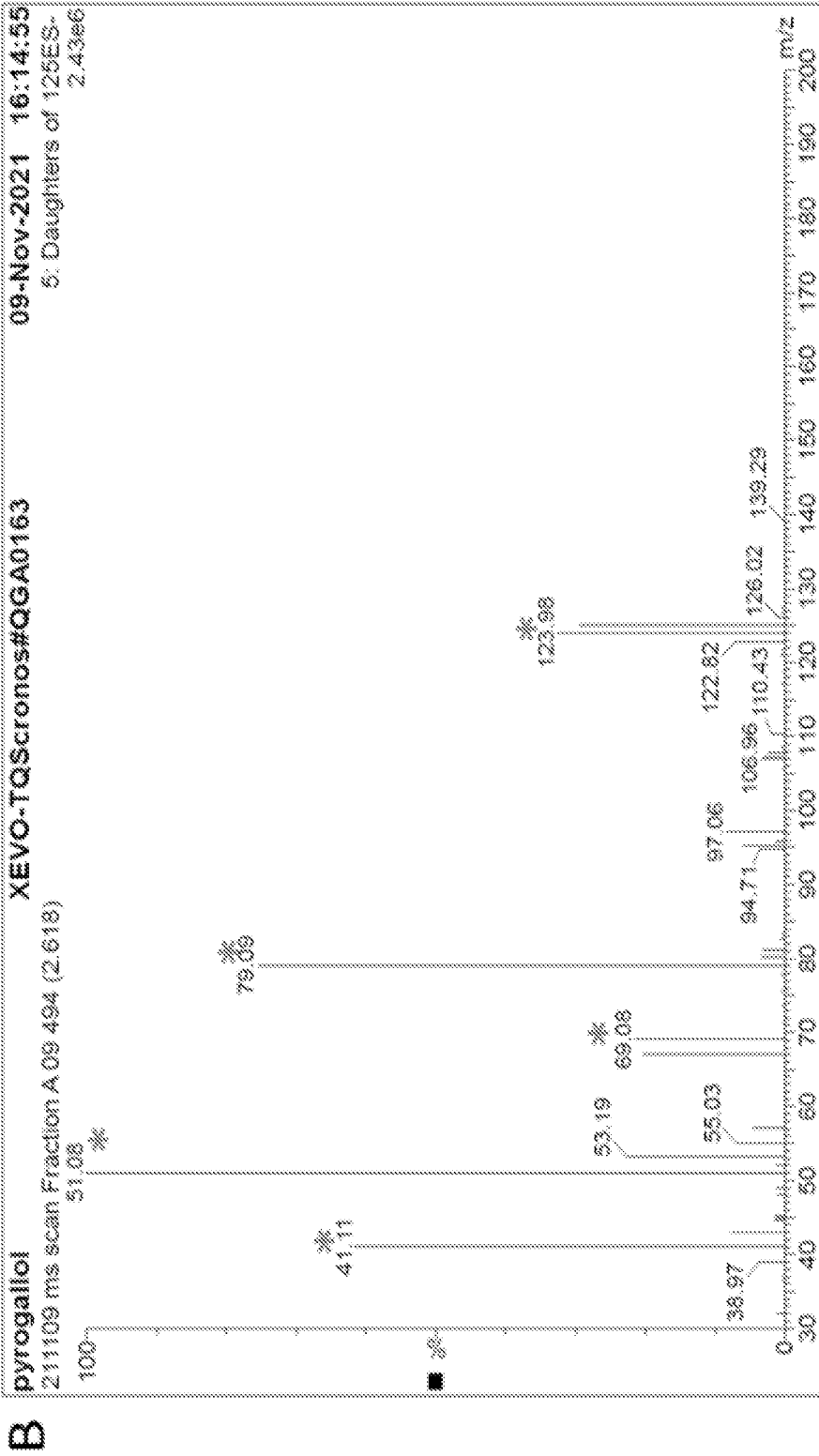


FIG. 47

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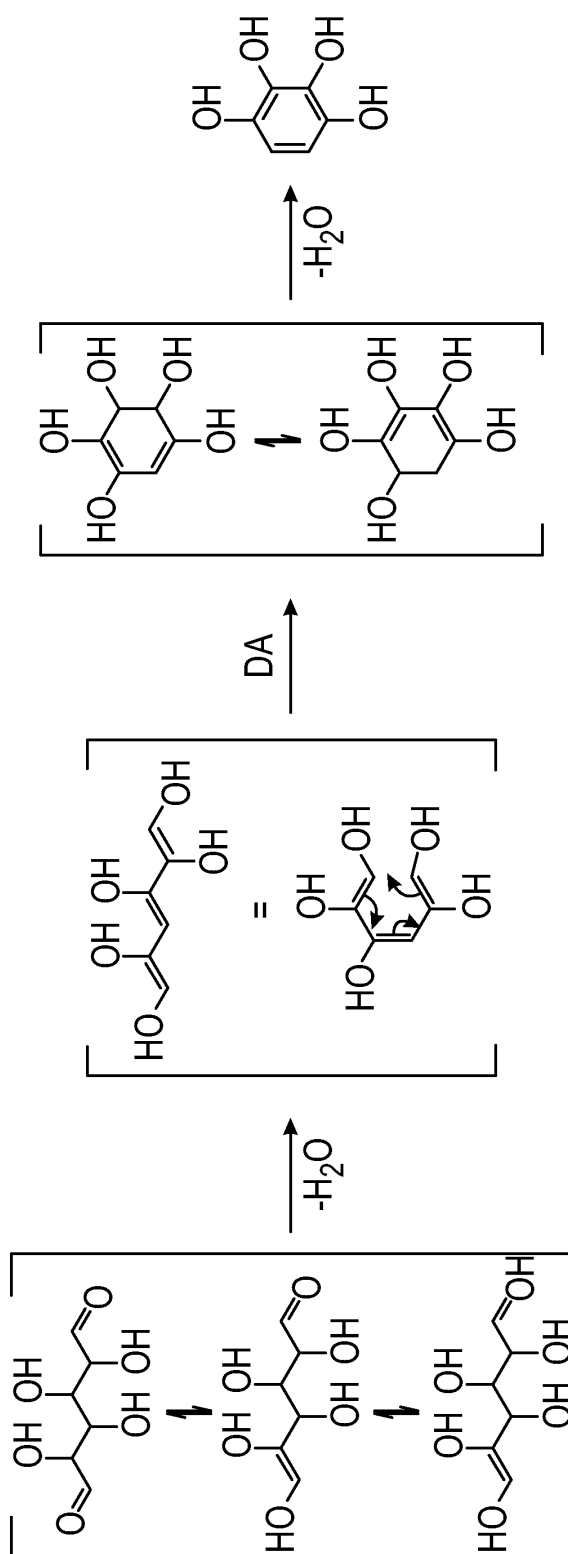


FIG. 48

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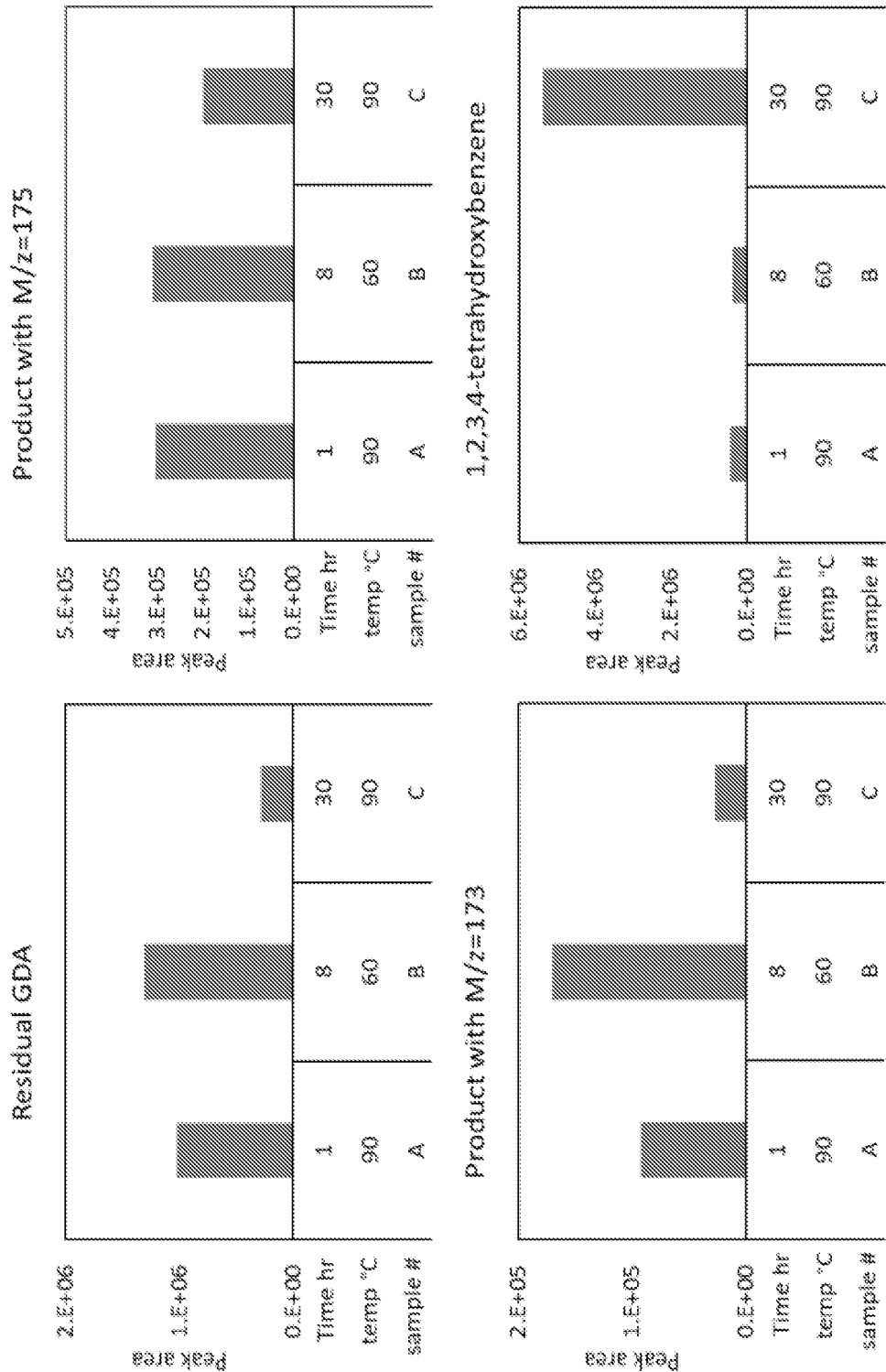


FIG. 49