

## Amperometric determination of glycoproteins by bioelectrocatalysis with GAO(galactose oxidase)

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We developed a convenient and simple method for the determination of glycoproteins using galactose oxidase on the basis of the contents of galactosyl and N-acetylgalactosaminyl residues in glycoproteins such as antibodies. Galactose residues released from glycoproteins after hydrolysis were oxidized with galactose oxidase and subsequently the amount of the enzymatic product, hydrogen peroxide, was determined by amperometric i-t curve. Galactose oxidase converts galactose to their corresponding aldehydes and hydrogen peroxide, the latter being electroactive and quantifiable by DC amperometric detection. Galactose oxidase have been introduced in a flow-injection mode by a syringe pump for constant flow rate. The total assay time was about 1 hour. The dynamic measuring range obtained for anti-DNP detection as a model analyte was 5.0 ng mL<sup>-1</sup>- 100 μg mL<sup>-1</sup>.

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### References

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