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# Selective and sensitive glycoprotein detection via a biomimetic electrochemical sensor based on surface molecular imprinting and boronate-modified reduced graphene oxide

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## Highlights

- Boronate-modified graphene-molecular imprinted composite (BGR@MIP) was prepared
- BGR@MIP showed good selectivity toward OVA combining boronate affinity and MIP effect
- The BGR@MIP sensor showed a wide linear response to OVA and low detection limit

**Abstract:** Glycoproteins are closely associated with the occurrence of diverse diseases, and they have been used as biomarkers and therapeutic targets in clinical diagnostics. The selective and sensitive sensing of glycoproteins still remains a challenge. Herein, we describe a biomimetic electrochemical sensor based on a novel boronate-modified graphene-molecular imprinted polymers composite (BGR@MIP) as recognition element that is well suited for detecting glycoproteins selectively and sensitively. Boronic acid functionalized reduced graphene oxide (BGR) bearing a covalent ester linkage to glycoprotein via boronate affinity was synthesized and used

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