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### ACCEPTED MANUSCRIPT

## First investigations for the characterization of glucosamine-6phosphate synthase by capillary electrophoresis

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#### Highlights

- glucosamine-6-phosphate synthase exists as an active dimer or an inactive hexamer
- for the first time, the potential of CE to separate the two forms was demonstrated
- a short-end CE method led to an analysis time of about 1 min
- the effect of some incubation conditions and the inhibitor/enzyme ratio was studied
- 3 potential enzyme inhibitors were tested very rapidly and with very small amounts

#### ABSTRACT

The enzyme glucosamine-6-phosphate synthase (GlmS) is an important point of metabolic control in biosynthesis of amino sugar-containing macromolecules and is therefore a potential target in order to design antibacterial and antifungal drugs. It has

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