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## Synthesis of novel dendritic macromolecules and investigation of glucose oxidase enzyme as biocatalysts

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Recently, dendritic macromolecules have received significant attention because of their good stability and high chemical reactivity. Dendrons are different from dendrimers. Even though symmetry of the molecule is broken, there is a focal point. To research, dendron including functional groups synthesized for enzyme immobilization. To prepare such a dendron, the melamine is reacted with dialdehyde and ferrocene aldehyde by means Schiff's condensation method and characterized via <sup>1</sup>H-NMR, FT-IR and LC-MS. Immobilized Glucose Oxidase Enzyme (GOx) on to novel dendron showed two optimum pH. The influence of reusability and storage capacity on the free and immobilized glucose oxidase enzyme was investigated. After 10 months, the immobilized enzyme (on studied dendron) retained 92.80 % of its original activity. High activity was found for immobilized enzyme. This result suggests that the studied dendron-support confer a higher conformational stability upon the immobilized enzyme due to form of covalent bond.

### Biography

Elvan Hasanoğlu Özkan received maximum score her bachelor's degree from Niğde University in chemistry in 2007. In 2009, she received her Master's degree in Inorganic Chemistry from University of Niğde. She is currently working on a PhD degree at Gazi University under the direction of Associate Professor Dr. Nurşen Sarı.

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