



## **IRREVERSIBLE AFFINITY IMMOBILIZATION OF LENTIL SEEDLING AMINE OXIDASE WITH ACTIVITY RETENTION**

**Francesca Sollai<sup>1</sup>, Barbara Noli<sup>1</sup>, Giovanni Floris<sup>2</sup>, Enrico Sanjust<sup>1,3\*</sup>**

<sup>1</sup>*Dipartimento di Scienze e Tecnologie Biomediche, Sezione di Chimica Biologica e Biotecnologie Biochimiche,  
Università di Cagliari, 09042 Monserrato, ITALY*

<sup>2</sup>*Dipartimento di Scienze Applicate ai Biosistemi, Sezione di Biochimica e Biologia Molecolare,  
Università di Cagliari, 09042 Monserrato, ITALY*

<sup>3</sup>*Consorzio Interuniversitario per lo Sviluppo dei Sistemi a Grande Interfase (CSGI) Via della Lastruccia, 3,  
50019 Sesto Fiorentino (FI) - Italy*

---

### **Abstract**

An aliphatic-amine-bearing chromatographic support, based on commercial silica, was prepared and tested as potential matrix for affinity immobilization of a copper/topaquinone-containing amine oxidase from lentil seedlings. The support proved to be noticeably effective in immobilizing the enzyme with concomitant purification and activity retention. The immobilization yields and some properties of this preparation were also determined and compared with those of the soluble enzyme. High activity retention, good operational stability and low preparative costs are best combined in this promising immobilized amine oxidase.

*Keywords:* amine oxidase, immobilization, affinity, activity

---