



A study of the amylase of *Aspergillus Oryzae*  
by Victor C Bruski

A THESIS Submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree  
of Master of Science in Chemistry  
Montana State University  
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**Abstract:**

A study has been made of the amylase obtained from a submerged culture of *Aspergillus oryzae*. grown on a synthetic media of starch and inorganic salts. It was discovered that the amylase produced can be absorbed and eluted from the mold mycelium by pH adjustments. An initial concentration of 20-40 fold of the amylase from the filtrate is readily obtainable. The advantages claimed are: elimination of salts, carbohydrates, proteins, and other extraneous materials; also, the method is simple, rapid, and inexpensive. Elutes from the mycelium absorptions were subjected to repeated ammonium sulfate fractionations followed by a bentonite treatment. The preparations thus obtained gave exceedingly high amylase activities with very little evidence of maltase, limit dex-trinase, and proteolytic activity.

A STUDY OF THE AMYLASE  
OF <sup>30</sup>  
ASPERGILLUS ORYZAE

by

VICTOR C. BRUSKI

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in  
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Approved:

\_\_\_\_\_  
Head, Major Department

\_\_\_\_\_  
Chairman, Examining Committee

\_\_\_\_\_  
Dean, Graduate Division

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I. ABSTRACT

A study has been made of the amylase obtained from a submerged culture of Aspergillus oryzae, grown on a synthetic media of starch and inorganic salts. It was discovered that the amylase produced can be absorbed and eluted from the mold mycelium by pH adjustments. An initial concentration of 20-40 fold of the amylase from the filtrate is readily obtainable. The advantages claimed are: elimination of salts, carbohydrates, proteins, and other extraneous materials; also, the method is simple, rapid, and inexpensive. Elutes from the mycelium absorptions were subjected to repeated ammonium sulfate fractionations followed by a bentonite treatment. The preparations thus obtained gave exceedingly high amylase activities with very little evidence of maltase, limit dextrinase, and proteolytic activity.







































































