

# Usage of Flavinium Salts as Catalysts of Oxidation Reactions

## Summary

This diploma thesis deals with use of flavinium salts as a catalysts of oxidation reactions. 3,7,8,10-tetramethylisoalloxazin **25**, 5-ethyl-3,7,8,10-tetramethylisoalloxazinium perchlorate **16** and 5-ethyl-1,3-dimethylalloxazinium perchlorate **26** had been prepared. Salts **16**, **26** and other previously prepared phlavinium salt **28** were tested as potential catalysts for the oxidation of phenylboronic acids to the corresponding phenols, and especially for the use of oxygen as the oxidizing agent. The best solvent systems were found through testing and followed possible influence of the substituent on the phenyl ring of boronic acid was investigated. This initial screening can be used as a basis for further and more detailed testing of catalytic efficiency of flavinium salts and to study the oxidation mechanism.