

Title: Bis(phosphinates)

Autor: Pavlína Křečková

Department: Department of Inorganic Chemistry, Faculty of Science

Supervisor: RNDr. Vojtěch Kubíček, Ph.D.

Supervisor's e-mail address: kubicek@natur.cuni.cz

Abstract

Four geminal bis(phosphinate) acids were prepared and characterized by TLC, NMR, MS, EA. The compounds were acquired in high yields (over 55 %). Stability of these compounds was tested in chosen aqueous buffers, which covered a wide range of pH. The experiments showed that the prepared compounds are not fully stable. Performed experiments have shown negligible sorption of synthesized bis(phosphic) acids to hydroxyapatite, which was used as a model of bone tissue.

Keywords: geminal, bis(phosphinate), decomposition, sorption.