

MECHANOCHEMICAL TRANSFORMATIONS OF Ag, Hg AND Pb CYANOMETALLATES  
IN KBr PRESSED DISKS.

**Key words:** IR spectra, cyano complexes, mechanochemistry, ion exchange reactions.

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**ABSTRACT**

The mechanochemical transformations of Ag, Hg and Pb cyano complexes (ferro- and ferricyanides, cobalticyanides, nitroprussides, hexacyanoplatinates and tetracyanonickellates) during milling and pressing with KBr have been studied using IR, XRD and Mossbauer techniques as sensors. Exchange of  $K^+$  and the heavy metal cations is observed in all cases.

**INTRODUCTION**

IR spectra of solids are normally run in pressed KBr disks [1,2]. During the grinding and pressing processes the analyte can undergo mechanochemical changes, the two most common being reduction of the analyte with formation of free  $Br_2$  [3,4] and ionic exchange between the analyte and the KBr matrix [5-7].