

TABLE OF CONTENTS

ABSTRACT.....	4
ABSTRACT IN CZECH.....	7
LIST OF PAPERS.....	10
THEORETICAL BACKGROUND.....	11
1. Polymer magnetic composites.....	11
1.1. Polymer matrixes for highly filled magnetic composites.....	11
1.2. Carbonyl iron powders as promising magnetic filler in radio-frequency and microwave applications.....	13
2. Production and characterization of carbonyl iron powders for RF applications.....	13
3. Production and characterization of carbonyl iron filled polymer composites.....	17
3.1. Processing technology of carbonyl iron filled polymer composites.....	17
3.2. Magnetic and dielectric spectra of carbonyl iron filled polymer composites.....	17
3.3. The method for corrosion prevention of carbonyl iron by polyaniline.....	23
AIMS OF THE WORK.....	27
SUMMARY OF PAPERS.....	28
CONCLUSIONS.....	31
ACKNOWLEDGMENTS.....	32
REFERENCES.....	33
CURRICULUM VITAE.....	39