

CONTENTS

ABOUT THE AUTHOR.....	4
THESIS STRUCTURE.....	6
MOTIVATION OF THE THESIS.....	6
1. INTRODUCTION.....	7
1.1. PROPERTIES OF PVDF.....	7
1.2. APPLICATIONS OF PVDF.....	8
2. SELECTED EXPERIMENTAL RESULTS.....	11
2.1 PVDF MODIFIED BY CARBON NANOTUBES (CNTs).....	11
2.1.1. Samples preparation.....	11
2.1.2. Scanning electron microscopy.....	11
2.1.3. Raman spectroscopy.....	12
2.1.4. X-ray photoelectron spectroscopy.....	13
2.1.5. Fourier transform infrared spectroscopy.....	14
2.2 PVDF MODIFIED BY CARBON FLAKES.....	15
2.2.1. Samples preparation.....	15
2.2.2. Scanning electron microscopy.....	16
2.2.3. Fourier transform infrared spectroscopy.....	16
2.2.4. Raman spectroscopy.....	18
2.2.5. X-ray photoelectron spectroscopy.....	18
2.3 PVDF MODIFIED BY NITRATE SALTS.....	20
2.3.1. Samples preparation.....	20
2.3.2. Scanning electron microscopy.....	20
2.3.3. Fourier transform infrared spectroscopy.....	21
2.3.4. X-ray photoelectron spectroscopy.....	22
2.4 ANALYSIS OF PVDF/NMP/[EMIM][TFSI] SOLID POLYMER ELECTROLYTE.....	24
2.4.1. Samples preparation.....	25
2.4.2. X-ray photoelectron spectroscopy.....	25
2.4.3. Secondary ion mass spectroscopy.....	27
3. CONCLUSION.....	27
REFERENCES.....	28