

List of Tables

Table 1.1- Hazardous content of 500 million computers [47]	10
Table 1.2- The composition of WPCBs reported in various literature	16
Table 1.3- Detailed summary of various mechanical treatment techniques investigated for WPCBs recycling	22
Table 1.4- Effect of gaseous atmosphere on decomposition temperature of organic compounds during pyrolysis	24
Table 1.5- Composition of gases emitted during pyrolysis at different temperature [133].....	25
Table 1.6- Detailed summary of various thermal techniques investigated for WPCBs recycling.....	30
Table 1.7- Detailed summary of various hydrometallurgical techniques investigated for WPCBs recycling	39
Table 1.8- Comparison of properties** of DMSO and NMP [207,215–217]	44
Table 2.1- Various properties of DMF and DMA.....	52
Table 2.2- Average metal composition of WPCBs	54
Table 2.3- Test- sieves used for the analysis of the milled WPCBs	58
Table 3.1- Concentration of copper and residue (non-metallic) in the milled samples after different milling time	74
Table 3.2- Peak spectra of various bands in FT-IR spectrum	98
Table 3.3- Wavenumbers corresponding to functional groups identified in FT-IR spectra	114
Table 3.4- NMR signals of proton at different position in HER chain (as indexed in Figure 3-48) (Please see Appendix A for peak identification)	132
Table 3.5 - NMR signals of carbon at different position in HER chain (as indexed in Figure 3-49) (Please see Appendix A for peak identification)	134
Table A.1- Peaks corresponding to position a, b, c and d position	181
Table A.2- Peaks corresponding to position g and h position.....	182