

**Jagustyn, B., Wasielewski, R., Skawinska, A. The Basis for Classification of Biodegradable Waste as Biomass. *Ochrona Srodowiska* 2014, Vol. 36, No. 4, pp. 45–50.**

**Abstract:** The paper discusses issues related to the classification of energy from waste based on legal regulations and the research results. Analysis of fuel properties and biomass content in several types of biodegradable waste (municipal and industrial sewage sludge, paper, textiles, alternative fuels produced from municipal waste) was performed. Then, the content of biodegradable waste fractions was compared. These results, obtained using selective dissolution and  $^{14}\text{C}$  dating methods, showed that a large amount of biogenic waste has the energy value. This would enable efficient energy recovery in the processes of combustion or co-combustion with fossil fuels. However, only this part of energy produced from such waste that comes from its biogenic fraction can be classified as energy from renewable sources. Therefore, clear and accurate rules are required for this fraction content determination in waste. Moreover, biodegradable fraction size estimation leads to the conclusion that some by-products generally considered as biodegradable do not constitute pure biomass. Therefore they should be handled appropriately during thermal treatment.

**Keywords:** Alternative fuels, renewable energy, selective dissolution method,  $^{14}\text{C}$  dating method.