

[home](#)[about](#)[publishers](#)[editorial boards](#)[advisory board](#)[for authors](#)[call for papers](#)[subscription](#)[archive](#)[news](#)[links](#)[contacts](#)[authors gateway](#)

Are you an author in Thermal science? In preparation.

THERMAL SCIENCE

International Scientific Journal

Goran G. Jankes, Nebojš M. Milovanović

BIOMASS GASIFICATION IN SMALL-SCALE UNITS FOR THE USE IN AGRICULTURE AND FORESTRY IN FR YUGOSLAVIA

ABSTRACT

This paper is the survey of the state-of-the art and prospects of biomass gasification in FR Yugoslavia. Combustion in small-scale units is the most common at present. Potentials of available biomass from agriculture and forestry for energy production are estimated. Prospects for application of various and forestry for energy production are discussed. Results of biomass gasification experiments performed at the Department of Process Engineering at the Faculty of Mechanical Engineering, University of Belgrade are presented. One concept of small-scale gasification unit for farms or sawmills is proposed.

PAPER SUBMITTED: 2002-07-17

PAPER REVISED: 2002-07-25

PAPER ACCEPTED: 2002-08-13

CITATION EXPORT: [view in browser](#) or [download as text file](#)

THERMAL SCIENCE YEAR 2001, VOLUME 5, ISSUE 2, PAGES [49 - 57]

REFERENCES [view full list]

1. Beenackers, A.A.C.M., Maniatis K., 1996, Gasification Technologies for Heat and Power From Biomass, Proceedings of the 9 th European Bioenergy Conference, Copenhagen, Vol. 1, pp. 228-259.
2. Bridgwater A.V. (1995). The technical and economic feasibility of biomass gasification for power generation, Fuel, Vol. 74, No. 5, pp. 631-653.
3. Danon, G., Nikolic, M., Bajic, V 1997, Biomasa sume kao znacajan izvor energije, Simpozijum Biomasa obnovljivi izvor energije, Jugoslovensko drustvo termicara, Beograd, str. 29-51.
4. Dinkelbach, I., Kaltschmit, M., 1996, Gasification of Biomass in Europe - State-of-the-Art and Prospects, Proceedings of the 9th european Bioenergy Conference, Vol. 2, pp. 1382-1387.
5. Grassi, G., Bridgwater, A.V. (1991) International Journal Solar Energy, Vol. 10, pp. 127
6. Gvero P., 1997, Magistarska teza, Masinski fakultet Beograd, Yugoslavia
7. Jankes, G., 1986, The Energy Use of Industrial and Agricultural Wastes, Paper prepared for

[Authors of this Paper](#)[Related papers](#)[Cited By](#)[External Links](#)

UNDP/UNIDO projects Energy Conversation, Budapest, Faculty of Mechanical Engineering Belgrade University, Belgrade, Kohan, S.M., 1981, Basic Principles of Thermochemical Conversion, Chapter 8 in Biomass Conversion Processes for Energy and Fuels in edg. S.S. Sofer i O.R.Zaborsky, Plenum Press, New York and London, pp. 145-186.

8. Novakovic, D., Djevic, M., 1997, Tehnicko-tehnoloski sistemi sakupljanja biljnih ostataka ratarske proizvodnje, Simposijum Jugoslovenskog drustvo termicara, Beograd, str. 53-68.
9. Raveendran, K., Ganesh, A., and Khilar, K. (1995). Influence of mineral matter on biomass pyrolysis characteristic, Fuel,, Vol. 74, No. 12, pp. 1812-1822.
10. Raveendran, K., Ganesh, A., and Khilar, K. (1996). Pyrolysis characteristic of biomass and bionass components, Fuel, Vol. 75, No. 8, pp. 987-998.
11. Raveendran, K. and Ganesh. A. (1996). Heating value of biomass pyrolysis products, Fuel, Vol. 75, No. 15, pp. 1715-1720
12. SYB,1997, Statistical Yearbook of Yugoslavia
13. Van Heek, K.H., Hodek, W. (1994), Fuel, Vol.73, pp. 886-892.

PDF VERSION [DOWNLOAD]

BIOMASS GASIFICATION IN SMALL-SCALE UNITS FOR THE USE IN AGRICULTURE AND FORESTRY IN FR YUGOSLAVIA

