

ANALYSE EXERGOECONOMIQUE DES INSTALLATIONS DE TRIGENERATION

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ABSTRACT

L'une des méthodes connues d'augmentation de l'efficacité des installations thermoénergétiques est la production simultanée de travail, de chaleur et de froid, dans un régime de trigénération.

En tenant compte de la complexité des installations de trigénération, définir des critères de performance signifie l'application spécifique des notions de l'efficacité énergétique, efficacité exergetique et efficacité exergoeconomique pour ces installations.

REFERENCES

1. Bejan, A., *Termodinamică tehnică avansată*. Editura Tehnică, București, 1996.
2. Bejan, A.; Tsatsaronis, G.; Moran, M. *Thermal design and optimization*. John Wiley & Sons, New York, 1996.
3. Casarosa, C.; Franco, A. Thermoeconomic Optimization of HRSG Operative Parameters for Combined Plants. In: Proceedings, ECOS'01, Öztürk, A. and Göğüş, Y.A., ed., Istanbul – Turkiye, 2001, Vol. II, pp. 801 – 812.
4. Erlach, B.; Tsatsaronis, G.; Cziesla, F. A New Approach for Assigning Costs and Fuels to Cogeneration Products. In: Proceedings of ECOS'01, Öztürk, A. and Göğüş, Y.A., ed., Istanbul – Turkiye, 2001, Vol. II, pp. 759-770.
5. Feidt, M.L., *Termodinamica și optimizarea energetică a sistemelor și proceselor*. Editura BREN, 2001, București.
6. Korobitsyn, M.A. *Analysis of Cogeneration, Combined and Integrated Cycles*. Febodruk BV 1998, Enschede, Netherlan.
7. Panait, T.; Gheorghiu, C.; Uzuneanu, K. The improvement of heat recovery plants from burnt gases by means of exergetic analysis. In: Proceedings, Sixth International Expert Meeting POWER ENGINEERING, 13-15 May, Maribor, Slovenija, 1997, Vol. B, pp. 237 – 244.
8. Panait, T.; Gheorghiu, C.; Uzuneanu, K.; Drăgan, M. Application de l'analyse d'exergie à l'étude des systèmes thermoénergétiques complexes. In: Travaux du Colloque Franco-Roumain COFRET'02, Université "Politehnica" Bucarest, 25 – 27 Avril 2002, pg. 68 – 71.
9. Panait, T. *Exergoeconomia sistemelor termoenergetice*. Editura Fundației Universitare "Dunărea de Jos", Galați, 2003.
10. Panait, T., Gheorghiu, C., Uzuneanu, K., Drăgan, M., About the costs of exergy destruction in the steam turbines plants with cogeneration. In Buletinul Institutului Politehnic din Iasi, Roumanie, 2004 a, Tomul L (LIV), Fasc. 6C, Sectia constructia de masini, pag. 195-200.
11. Panait, T., Dragan, M., Uzuneanu, K., 2004, Exergoeconomic analisys of cogeneration thermoenergetic plants. WEC Regional Energy Forum – FOREN 2004 b, Neptun, Roumanie.
12. Panait, T., Uzuneanu, K., Dragan, M., Cogénération – principe du développement durable. Colloque Réseau EURECO – COFRET'04, Nancy, France, 2004 c, pg. 208-212, ISBN: 2-905267-41-0.
13. Panait, T., Drăgan, M., Baltă, A. I., Stratulat, E., Analyse des performances des installations cogeneratives. Troisième Edition du Colloque Franco - Roumain - COFRET'06. Scientific bulletin of the „Politehnica”

University of Timisoara, Transactions on mechanics, Roumanie, 2006, Tom 51 (65), Fascicola 1, pg. 235-240, ISSN 1224-6077.

14. Panait, T., Uzuneanu, K., Drăgan, M., Condrea, A.I., Stratulat, E., Dogărescu, G., Sustainable development by using biomass in co-generation energetic plants. 2nd International Conference on Thermal Engines and Environmental Engineering – METIME, June 7-9, Galati, Romania, 2007, ISSN 1843-2794, Vol. 2 pg. 149-154.
15. Radcenco, V., *Termodinamică tehnică și mașini termice. Procese ireversibile*. Edp. București, 1976.