International Journal of Thermodynamics

Contents for Volume 15

Vol. 15 No. 1 **March 2012**

A. Boyano A. Blanco-Marigorta T. Morosuk G. Tsatsaronis	1-9	Steam Methane Reforming System for Hydrogen Production: Advanced Exergetic Analysis
W. Stanek	11-16	Examples of Application of Exergy Analysis for the Evaluation of Ecological Effects in Thermal Processes
A. Valero J. Uche A. Martínez	17-25	The Hidden Value of Water Flows: The Chemical Exergy of Rivers
J. Górski S. Rabczak	27-33	Critical Flow of Dense Gases – Modeling and Experimental Validation
M. Zieba M. Fink A. Schuster G. Scheffknecht R. Berger	35-41	The Fate of Ammonia and Hydrogen Cyanide during Flameless Combustion of Low Calorific Value Gases
G. Brus Y. Komatsu S. Kimijima J.S. Szmyd	43-51	An Analysis of Biogas Reforming Process on Ni/YSZ and Ni/SDC Catalysts
N. Poboss K. Swiecki A. Charitos C. Hawthorne M. Zieba G. Scheffknecht	53-59	Experimental Investigation of the Absorption Enhanced Reforming of Biomass in a 20 kWth Dual Fluidized Bed System

Vol. 15 No. 2 **June 2012**

M. Bijedić N. Neimarlija	61-68	Thermodynamic Properties of Liquids from Speed of Sound Measurements
M. Gustavsson	69-82	Residual Thermodynamics: A Framework for Analysis of Non-Linear Irreversible Processes
A. S. Olawale S. S. Adefila	83-90	Two-parameter Rankine Heat Pumps' COP Equations
N. Zeinali M. Saber A. Ameri	91-101	Comparative Analysis of Hydrate Formation Pressure Applying Cubic Equations of State (EoS), Artificial Neural Network (ANN) and Adaptive Neuro-Fuzzy Inference System (ANFIS)
S. J. Nejad M. A. Khansary F. Amiri	103-110	Solubility Prediction of Some Disperse Azo Dyes in Supercritical Carbon Dioxide using Equation of States (EOSs)

M. Yasmin M. Gupta	111-117	Thermodynamical Study of Alcoholic Solutions of Poly (ethylene glycol) Diacrylate and Poly (ethylene glycol) Dimethacrylate
F. Heberle P. Bassermann M. Preißinger D. Brüggemann	119-126	Exergoeconomic Optimization of an Organic Rankine Cycle for Low-Temperature Geothermal Heat Sources

Vol. 15 No. 3 **September 2012**

J. H. Jennings	127-132	Limit of Superheat of Polystyrene-Cyclohexane Solutions: Theory
K. Sadhukhan A. K. Chowdhuri B. K. Mandal	133-139	Computer Based Thermodynamic Properties of Ammonia-Water Mixture for the Analysis of Power and Refrigeration Cycles
E. Balomenos D. Panias I. Paspaliaris	141-148	Exergy Analysis of Metal Oxide Carbothemic Reduction under Vacuum – Sustainability prospects
W. Jia C. Li X. Wu	149-156	Computation of Liquid-Vapor Critical Points for Multi-Component Mixtures
S. Kamalpour A. Mehablia	157-168	Thermodynamics of CO_2-MDEA using eNRTL with Differential Evolution Algorithm
A. Bula J. Mendoza R. Gomez M. Sanjuan	169-175	Syngas for Methanol Production from Palm Oil Biomass Residues
J. Vallade N. Mazet P. Neveu D. Stitou	177-185	Comparative Assessment of Processes for the Transportation of Thermal Energy Over Long Distances

Vol. 15 No. 4 **December 2012**

J. Szargut W. Stanek	187-190	Fuel Part and Mineral Part of the Thermoecological Cost
R. A. Gaggioli	191-199	The Dead State
T. Morosuk G. Tsatsaronis	201-213	3-D Exergy-Based Methods for Improving Energy-Conversion Systems
J. Uche A. Valero L. Serra C. Torres	215-220	Bblocks Software for Thermoeconomic Analysis of Dual-purpose Power and Desalination Plants
V. Verda A. Kona	221-229	Thermoeconomics as a Tool for the Design and Analysis of Energy Savings Initiatives in Buildings Connected to District Heating Networks
R. Melli E. Sciubba C. Toro A. Zoli-Porroni	231-238	An Improved POD Technique for the Optimization of MSF Processes
V. A. Vallianou C. A. Frangopoulos	239-247	Dynamic Operation Optimization of a Trigeneration System