



Content

THOMAS MEHLHORN, ANJA GERBETH, BERNHARD GEMENDE

Adsorptive Schwefelwasserstoffentfernung aus Biogas – Einfluss von Gasfeuchte und Sauerstoffgehalt auf den Adsorptionsprozess6

**NICOLE PAUSCH, BERNHARD GEMENDE, SINDY RÖHLIG, ANJA GERBETH,
JÖRG HOFMANN, KATJA KÖNIG, MIKE WECKS, MATTHIAS LEIKER,
BIANKA BÄDE, MARCEL MALLAH**

Vorversuche zur Herstellung von Schüttgut-Ionenaustauschern auf Basis nachwachsender Rohstoffe in einer 12 kW Mikrowellen-Bandieranlage11

JENS TEUSCHER, VANESSA ZEISING, DAVID KÜHNERT

Loss-Optimized Management in Low-Voltage Grids Based on an Incentive Signal.....17

ZSOLT ČONKA, JOZEF HUDÁK, DUŠAN MEDVEĎ, MILOŠ ŠČURKA

Possibilities to increase the efficiency of photovoltaic cells21

JOZEF DUDIÁK, DUŠAN MEDVEĎ

Wind power plants and their impact on electric power system25

MATÚŠ KATIN

Solar energy in Slovakia29

VLADIMÍR KRIŠTOF

Water power plants in Slovakia33

STANISLAV KUŠNÍR

Geothermal energy in Slovakia39

MARTIN MARCI

Using of nuclear fusion for electricity-producing fusion power plants43

DUŠAN MEDVEĎ

Trigeneration units47

JAROSLAV PETRÁŠ, JOZEF BALOGH

Photovoltaic system overvoltage protection51

HANA BENEŠOVÁ, JAN ŠKORPIL

Configuration of thin-film photovoltaic cells	54
---	----

VLASTIMIL ŠANTÍN

Model of Wind Power Plant With Asynchronous Generator In Simulink Platform	60
--	----

LUCIE VOLÍNOVÁ

Environmental assessment using Meco matrix – case study	66
---	----

MIROSLAV ŠAFARÍK, LUCIE NOHÁČOVÁ, VERONIKA KRÁLOVCOVÁ

Nowadays technological possibilities of biomass application	73
---	----

LUCIE NOHÁČOVÁ

Ökologische verbrennungsanlagen im Pilsner region	77
---	----

MILAN BĚLÍK

Usage of solar energy in Spain	81
--------------------------------------	----

EDUARD ŠČERBA

Biomass as a source and as a perspective of the renewable energetics in the world, Europe and in the Czech Republic.....	84
--	----

JAN VELEBA, ZAIDAN BUHAWA

Perspectives of large wind power plant installations to the national transmission power system of libya.....	87
--	----

MILOSLAVA TESAŘOVÁ

Power Quality and Quality of Supply.....	95
--	----

DAVID ROT

Conductor's ampacity	102
----------------------------	-----

OLDŘICH KROUPA

Example of induction heating computer simulation.....	108
---	-----

ADAM KYSELA

Electromagnetic emissions of AC high-voltage corona.....	114
--	-----

ZBYNĚK CHÁRA

- Numerical analyses of electromagnetic fields in high voltage bushing and in electromagnetic flow meter 119

ONDŘEJ KRÁL

- Effect of the feeder cable and transformer impedance on the mechanical output characteristic of the induction motor 125

JAROSLAV BUBLÍK, MATĚJ ABRAHAM

- Specific energy consumption of induction crucible furnace..... 130

VIKTOR MAJER

- Preparing and Analysis of electricity consumption data for short term prediction 134

ALEŠ KRUTINA, VÁCLAV KRAUS

- Communication limits and isolated-network operation 138

JAN VELEBA

- Possible steady-state voltage stability analyses of electric power systems.... 142

ROMANA DUŠÁKOVÁ

- New trends of nuclear waste storages..... 151

VÁCLAV JEŽEK

- Short circuit capability of generator circuit breaker..... 155

DALIBOR ŠVUGER

- Influence between a construction of a light fitting and a utility factor 159

JIŘÍ POLÍVKA

- Energy storage in smart grids 163

LUBOŠ FRANK

- Readiness of an electric network for the oncoming of the smart technology.. 166

- Appendix I – List of Participants..... 169

- Appendix II – Photogallery..... 171