

Table of contents

Laboratory Methods of Diagnostics

Diagnosis of whiskers using expert system <i>Hájek J., Žák P., Tučan M., Kudláček I.</i>	9
Diagnostic of printed resinate paste <i>Hromadka K., Hamáček A., Řeboun J., Džugan T., Krpař O.</i>	13
Lifetime vibration test of electronic parts <i>Hrubý J., Tureček O.</i>	17
Magnetodielectric anisotropy in magnetic fluids in temperature interval from 20 °C to 80 °C <i>Marton K., Cimbala R., Kolcunová I., Kiraly J., Tomčo L., Timko M., Kopčanský P., Molčan, M.</i>	20
A new approach in partial discharge activity: Observing of the consecutive pulses <i>Mráz P., Mentlík V., Pihera, J.</i>	24
Weibull statistic in material diagnostics <i>Pihera J., Kupka L., Mráz, P., Širůček, M.</i>	28
Electronic inductive probe for generator diagnostics <i>Pihera J., Švarný, J.</i>	32
Change of dielectric parameters of low voltage cables within the thermal and ionizing radiation degradations <i>Procházka R., Ullman J., Hlaváček J.</i>	36
Comparison of infrared spectroscopy techniques for transformer oils analysis <i>Prosr P., Polanský R.</i>	40
Diagnostic methods in the quality control system in the production of plastic materials for direct food contact <i>Samsonek J., Vaculík L.</i>	44
Program for prediction of the rest lifetime of rotary machine insulating system <i>Trnka P., Svoboda M., Souček J.</i>	48
Detecting Non-Homogeneity of Electrically Conductive Adhesives <i>Tučan M., Žák P., Urbánek J.</i>	53

On-Site Testing of Electrical Appliances

Measurement of railway traction transformer using by SFRA method - part 1 <i>Brandt, M., Michalík, J., Kuchta, J.</i>	57
Measurement and analysis of railway traction transformer using by SFRA method – part 2 <i>Brandt, M., Seewald, R., Sedláček, J., Faktorová, D.</i>	61
Evaluation circuit for IDE sensor structures <i>Freisleben J., Hamáček A., Řeboun J.</i>	65
Use of Internet as an instrument for control of measurement instruments in materials diagnostic <i>Frk M., Rozsívalová Z.</i>	69
Dielectric absorption of insulating system generators in operation <i>Hájková L., Petr J., Hájek J.</i>	73
Noise source identification using sound intensity measurement <i>Klasna J.</i>	77
Fast controlled transfers process analysis of 6 kV switchgear in NPP <i>Mareček O., Kaška M.</i>	81
Energy audit and revisions of power equipments <i>Šebök M., Gutten M., Kučera M., Korenčiak D.</i>	85
Requirements for assessment of LOCA cables VUKI in deliveries for the Mochovce NPP <i>Verbich O., Sulová J., Valach R.</i>	89

Electrical Insulation Properties and Structural Changes

Epoxy-POSS nanocomposite for electro-insulating materials <i>Boček J., Mentlík V., Trnka P.</i>	93
Investigation and Diagnostic of Magnetic Control of Cryogenic Heat Pipes <i>Cingroš F., Kuba J.</i>	97
Moisture within transformer insulation system <i>Dončuk J., Mentlík V.</i>	101
Radiation Ageing of Flame Retardant XLPE Cables <i>Ďurman V., Lelák J.</i>	105
Life Cycle Assessment of photovoltaic system in intelligent buildings <i>Hájek J., Žák P., Kudláček I.</i>	109

Dielectric Properties of epoxy resins with TiO ₂ nanofillers <i>Klampár M., Liedermann K.</i>	113
Design and verification of properties of some components for magnetic refrigeration near room temperature <i>Kuba J., Hron T.</i>	117
Insulating materials and cryogenic temperatures <i>Kučerová E., Matějka F., Šebík P., Krpal O.</i>	121
Study on the Effect of Addition of Spherical Silver Nanoparticles into Electrically Conductive Adhesives <i>Mach, P.</i>	126
Partial discharges and breakdown voltage diagnostics during thermal aging of insulating materials <i>Pihera J., Mráz P., Haller R., Mentlík V.</i>	130
Diagnostic system for cable insulation materials <i>Pinkerová, M., Mentlík, V.</i>	136
Dielectric properties of a composite based on epoxy resin <i>Polsterová H.</i>	141
Influence of Thermal degradation on Electrical Parameters of Winding Insulating System of Power Transformers <i>Širůček M., Trnka P., Paslavský B.</i>	144
Other Diagnostic Methods	
Software for stator bars design, 3D models of stator bars and 3D models of jigs <i>Bezděkovský J., Krupauer P.</i>	148
Issues of flicker noise measurements on power semiconductor devices <i>Hájek J., Papež V.</i>	152
The distribution of voltage on the inductor during surge testing (RSO) <i>J. Lábadi, Z. Křelovec</i>	156
Seebeck effect of ECA <i>Koblížek V.</i>	160
Diagnostics of electrical equipment as a tool for risk management measures <i>Kopča M., Váry M.</i>	164
A new ERM winding impregnation quality assessment method <i>Kotlárik B., Vaňková R., Filová Z.</i>	167

Less common used methods of DOE <i>Motyčka M., Tůmová O.</i>	173
Analysis of induction machine reliability by means of FRA method <i>Poliak, J., Gutten, M.</i>	177
Relation of electro insulating fluids to the environment <i>Trnka P., Souček J., Svoboda M.</i>	181
Is FMEA a risk? <i>Tůmová O.</i>	185
What will be the evolution of International System of Units after the year 2011? <i>Tůmová O., Kupka L.</i>	189
Estimation of Weibull Distribution Parameters for Reliability <i>Žák P., Tučan M., Kudláček I.</i>	193
Contribution to the study of lead-free technology in terms of LCA <i>Žák P., Tučan M., Kudláček I.</i>	198