

EWGAE – Kraków 2008 Technical programme

PROG. MARK	PROCC. PAGE NO	TITLE OF PAPER, AUTHORS AND ORGANIZATION OR COMPANY
KN1	1	Application of acoustic emission in the field of mechanical industry C. Herve, S. Maillard, F. Zhang, L. Jaubert, J. Catty and M. Cherfaoui CETIM Technical Center for Mechanical Industries, Senlis, France
1	13	Couplants and their influence on AE sensor sensitivity Pete Theobald, Bajram Zeqiri and Janine Avison National Physical Laboratory, Teddington, UK
2	19	A comparison of AE sensor calibration methods Jiri Keprt and Petr Benes Brno University of Technology, Brno, Czech Republic
3	25	Experimental transfer functions of practical acoustic emission sensors Kanji Ono and Hideo Cho ¹ University of California, Los Angeles, USA; ¹ Aoyama Gakuin University, Sagamihara, Japan
4	31	Laboratory experiments for assessing the detectability of specific defects by acoustic emission testing Franz Rauscher Vienna University of Technology, Vienna, Austria
5	37	Integrity evaluation of COPVs by means of acoustic emission testing Yoshihiro Mizutani ¹ , Kouki Saiga ² , Hideyuki Nakamura ³ , Nobuhito Takizawa ³ , Takahiro Arakawa ³ and Akira Todoroki ¹ ¹ Tokyo Institute of Technology, Tokyo, Japan; ² JAXA, Tsukuba, Japan; ³ Ishikawajima Inspection & Instrumentation Co., Ltd. Yokohama, Japan
6	43	Structural integrity evaluation of CNG composite cylinders by acoustic emission monitoring Olivier Skawinski ¹ , Patrice Hulot ¹ , Christophe Binétruy ¹ and Christian Rasche ² ¹ Ecole des Mines de Douai, Douai, France; ² Dynetek Industries Ltd., Calgary, Canada
7	49	Periodic inspection of LPG vessels within Europe Peter Tscheliesnig TÜV Austria Services GmbH, Vienna, Austria
8C	53	Assessment of stress corrosion cracking in prestressing strands using AE technique Marianne Perrin ^{1,2} , Laurent Gaillet ¹ , Christian Tessier ¹ and Hassane Idrissi ² ¹ Laboratoire Central des Ponts et Chaussées, Bouguenais, France; ² INSA-Lyon, Villeurbanne, France
9C	59	AE method for determination of pitting corrosion depth and monitoring of defect propagation rate Yu. S. Popkov, A. L. Alyakritskiy, E. Yu. Sorokin and D. A. Terentyev Interunis Ltd., Moscow, Russia
10C	64	Acoustic emission monitoring of crack growth in dissimilar joints for corrosion resistant applications Chiraz Ennaceur and Viviane Beaugrand TWI Ltd, Cambridge, UK
11C	70	Contribution of acoustic emission to evaluate cable stress corrosion cracking in simulated concrete pore solution S. Ramadan ¹ , L. Gaillet ² , C. Tessier ² and H. Idrissi ¹ ¹ INSA-Lyon, Villeurbanne, France; ² LCPC, Bouguenais, France
8H	76	Automated method for statistical processing of AE testing data V. A. Barat and A. L. Alyakritskiy Interunis Ltd., Moscow, Russia
9H	82	High-order statistics approach: automatic determination of sign and arrival time of acoustic emission signals Tomáš Lokajíček and Karel Klíma Academy of Sciences of the Czech Republic, Prague, Czech Republic
10H	88	AE wave propagation and novel source location in composite plates Mark J. Eaton, Rhys Pullin, Karen M. Holford and Carol A. Featherston Cardiff University, Cardiff, UK

11H	94	Spectral kurtosis-based virtual instrument for non-destructive acoustic emission targeting of termites Juan-José G. De la Rosa ¹ , Antolino Gallego ² , Rosa Piotrkowski ³ , Enrique Castro ² and Antonio Moreno-Muñoz ⁴ ¹ University of Cádiz, Algeciras-Cádiz, Spain; ² University of Granada, Granada, Spain; ³ San Martin University, Buenos Aires, Argentina; ⁴ University of Córdoba, Córdoba, Spain
12C	100	Acoustic emission analysis and acousto-ultrasonics for damage detection in GFRP adhesive joints Andreas J. Brunner ¹ , Giovanni P. Terrasi ¹ , Till Vallée ^{2*} and Thomas Keller ² ¹ Empa, Duebendorf, Switzerland; ² EPFL, Lausanne, Switzerland
13C	106	Identification of damage initiation and development in textile composite materials using acoustic emission D.S. Ivanov, S.V. Lomov, I. Verpoest and M. Wevers <i>Katholieke Universiteit Leuven, Leuven, Belgium</i>
14C	112	Bending fracture behavior of 3D-woven SiC/SiC composites with transpiration cooling structure characterized by AE wavelet analysis Toshimitsu Hayashi and Shuichi Wakayama Tokyo Metropolitan University, Hachioji, Japan
12H	118	Crack creation kinetics characterization by electromagnetic and acoustic emission Josef Sikula ¹ , Yasuhiko Mori ² , Tomas Lokajicek ³ , Pavel Koktavy ¹ , Jiri Majzner ¹ and Petr Sedlak ¹ ¹ Brno University of Technology, Brno, Czech Republic; ² Nihon University, Narashino, Japan; ³ Academy of Sciences of the Czech Republic, Prague, Czech Republic
13H	124	Application of moment tensor analysis on microcracks in a salt mine Gerd Manthei ¹ , Jürgen Eisenblätter ² and Thomas Spies ³ ¹ University of Applied Sciences, Gießen, Germany; ² GMuG, Bad Nauheim, Germany; ³ BGR, Hannover, Germany
14H	130	Changes of anisotropy of p-wave velocity propagation during deformation process of rock samples Matěj Petružálek ^{1,2} , Jan Vilhelm ^{2,1} , Tomáš Lokajíček ¹ and Vladimír Rudajev ¹ ¹ Academy of Sciences of the Czech Republic, Prague, Czech Republic; ² Charles University in Prague, Prague, Czech Republic
KN2	-	Acoustic Emission application in health monitoring of concrete prestressed bridges L. Gołaski and M. Kalicka Kielce University of Technology, Kielce, Poland
15	136	Acoustic emission monitoring of bridge structures in the field and laboratory Rhys Pullin, Karen M. Holford, Robert J. Lark and Mark J. Eaton Cardiff University, Cardiff, UK
16	142	Acoustic emission applied to damage monitoring of RC beam-column connections subjected to low-cycle fatigue loading Amadeo Benavent-Climent ¹ , Antolino Gallego ¹ , Enrique Castro ¹ , Juan M. Vico ¹ and José Martínez-Jequier ² ¹ University of Granada, Granada, Spain; ² NDT-Ingenieros, Madrid, Spain
17	148	Evaluation of damage accumulation in post-tensioned concrete beams by AE during high deformation loading cycles Edoardo Proverbio ¹ , Giuseppe Campanella ¹ and Vincenzo Venturi ² ¹ University of Messina, Messina, Italy; ² Sidercem srl, Misterbianco, Italy
18	154	Monitoring compressive behaviour of concrete containing waste materials as aggregates using acoustic emission Ajmol H. Choudhury ¹ , Derek Johnstone ¹ , A. Siddiqui ² and S. Jihan ² ¹ College Furness, Cumbria, UK; ² Robert Gordon University, Aberdeen, UK
19	160	Two-dimensional source location techniques for large composite plates Jonathan J. Scholey, Paul D. Wilcox, Michael R. Wisnom and Mike I. Friswell University of Bristol, Bristol, UK
20	166	Arrival time detection in thin multilayer plates on the basis of Akaike information criterion Petr Sedlak ^{1,2} , Yuichiro Hirose ¹ , Manabu Enoki ¹ and Josef Sikula ² ¹ The University of Tokyo, Tokyo, Japan; ² Brno University of Technology, Brno, Czech Republic

21	172	Advanced acoustic emission source location in complex aircraft structure Michal Blahacek and Zdenek Prevorsek Institute of Thermomechanics of the ASCR, Prague, Czech Republic
22	178	On determination of accurate lamb-mode group-velocity arrival times with different types of acoustic emission sensors M. A. Hamstad University of Denver, Denver, USA
23C	184	Benchmarking of tribology in sliding bearings by acoustic emission B. Ziegler ¹ , R. Eichelbeck ¹ , H.-J. Schwalbe ¹ , K. Wierzcholski ² and A. Miszczak ² ¹ University of Applied Sciences, Gießen, Germany; ² Gdynia Maritime University, Gdynia, Poland
24C	190	Treatment of AE signal at contact damage tests of materials and bearings Pavel Mazal ¹ , Lubos Pazdera ¹ , Martin Drab ² and Tomas Slunecko ² ¹ Brno University of Technology, Brno, Czech Republic; ² ZD Rpety – Dakel, Prague, Czech Republic
25C	196	Laser cutting and acoustic emission signals Tomaž Kek and Janez Grum University of Ljubljana, Ljubljana, Slovenia
26C	202	Application of acoustic emission for the online monitoring of hot die forging processes (part-I) Islam El-Galy, Hans Conrads and Bernd-Arno Behrens Leibniz University Hannover, Garbsen, Germany
27C	208	Signal processing of acoustic emission data for chip-breakage recognition in machining Roger Margot, Angelo Marcos Gil Boeira, Fredy Kuster and Konrad Wegener ETH Zentrum, Zurich, Switzerland
23H	214	Use of AE/AU techniques for monitoring wood drying defects Sumire Kawamoto Forestry and Forest Products Research Institute, Tsukuba, Japan
24H	220	AE monitoring of mechanical tests on plant fiber composites Claudio Caneva, Igor Maria De Rosa, Carlo Santulli and Fabrizio Sarasini University of Rome "La Sapienza", Rome, Italy
25H	226	AE analysis of fatigue fracture process in bone Shuichi Wakayama and Tetsuya Suemune Tokyo Metropolitan University, Hachioji, Japan
26H	232	Information potential of acoustic emissions on the dehydration stress behavior of wood Sabine Rosner ¹ , Bo Karlsson ² , Johannes Konnerth ³ and Christian Hansmann ⁴ ^{1,3} University of Natural Resources and Applied Life Sciences, Vienna, Austria; ² Skogforsk, Svalöv, Sweden; ⁴ Competence Centre for Wood Composites and Wood Chemistry, Linz, Austria
27H	238	Investigation of the through the thickness strength properties of paper by acoustic emission monitoring S. Norgren, P. A. Gradin, S. Nyström and M. Gullikson Mid Sweden University, Sundsvall, Sweden
28C	244	Damage identification in corroded galvanized and duplex coatings using wavelet power and entropy Rosa Piotrkowski ¹ , Antolino Gallego ² , Enrique Castro ² , Juan de Mata Vico ² and J.J. González de la Rosa ³ ¹ San Martin University, Buenos Aires, Argentina; ² University of Granada, Granada, Spain; ³ University of Cádiz, Algeciras, Spain
29C	250	AE source recognition by neural networks with optimized signal parameters Milan Chlada and Zdenek Prevorsek Institute of Thermomechanics AS CR, Prague, Czech Republic
30C	256	An AE-model for residual strength prediction in fatigued FRP composites: parameter investigation Theoni Assimakopoulou and Theodore Philippidis University of Patras, Patras, Greece

31C	262	Application of acoustic emissions to technical evaluation of new pressure devices Krystian Paradowski, Wojciech L. Spychalski, Jan Płowiec, Tomasz Lusa, Andrzej Zagórski and Krzysztof J. Kurzydłowski Warsaw University of Technology, Warsaw, Poland
32C	292	In-situ acoustic emission monitoring of zinc-phosphate coating formation on mild steel Florica Simescu and Hassane Idrissi INSA-Lyon, Villeurbanne, France
28H	268	A framework for modelling the complete AE process in composite materials Jonathan J. Scholey, Paul D. Wilcox, Michael R. Wisnom and Mike I. Friswell University of Bristol, Bristol, UK
29H	274	Application of acoustic emissions in optimising the design of new generation castings of high voltage electric devices Jan Płowiec, Wojciech L. Spychalski, Hubert Matysiak, Jakub Michalski Warsaw University of Technology, Warsaw, Poland
30H	280	Experimental simulation and dynamic behavior of the AE due to martensitic transformation using shear wave transmission sensor Takeshi Yasuda, Shinya Kondo, Hideo Nishino and Kenichi Yoshida The University of Tokushima, Tokushima, Japan
31H	286	Wave propagation properties in layered materials Minseok Bae, Sunhee Choi, Jisu Kim, Seokchan Hong and Young H. Kim Korea Science Academy, Busan, South Korea
32H	334	Monitoring of fluidic systems by acoustic emission L. Jaubert, S. Maillard and V. Sulis CETIM Technical Center for Mechanical Industries, Senlis, France
KN3	-	AE development and prospects in Russia V.G. Kharebov, S.V. Elizarov, Yu.P. Borodin Interunis Ltd., Moscow, Russia
33C	328	News in the field of digital acoustic emission signal processing Hartmut Vallen and Jochen Vallen Vallen Systeme GmbH, Icking, Germany
34C	316	New developments of software for A-line family AE systems Sergey Elizarov, Anton Bukatin, Mikhail Rostovtsev and Denis Terentyev Interunis Ltd., Moscow, Russia
35C	304	Acoustic emission analysis of the over-straining of pipes in a polyethylene reactor Ireneusz Baran ¹ , Marek Nowak ¹ and Kanji Ono ² ¹ Cracow University of Technology, Krakow, Poland; ² University of California, Los Angeles, USA
36C	310	Semi-automatic testing of gas cylinders Gerald Lackner ¹ and Rene Dusek ² ¹ TÜV Austria Services GmbH, Vienna, Austria; ² Messer Austria GmbH, Herzogenburg, Austria
33H	-	Acoustic emission data acquisition using parallel data-processing techniques to monitor sub-surface defects in high-speed bearings Tim Bradshaw ¹ , Phil Cole ¹ , and David Mba ² ¹ Physical Acoustics Ltd., Cambridge, UK; ² Cranfield University, Bedford, UK
34H	-	Operation Reliability Monitoring of Spherical Tanks by Means of Acoustic Emission Václav Svoboda and František Žemlička PREDITEST Ltd., Prague, Czech Republic
35H	-	The problems of acoustic emission source location at high noise activity Tatiana Petersen and Victor Shemyakin DIAPAC Ltd., Moscow, Russia
P1	322	Detection of the response parameter change prior before and after realization of the frost-thawing test on ceramic tiles Iveta Plskova, Zdenek Chobola, Michal Matysik and Jan Martinek Brno University of Technology, Brno, Czech Republic
P	-	Application of the frequency inspection method to lightweight concrete specimen testing Iveta Plskova, Michal Matysik, Barbara Kucharczykova, Zdenek Chobola and Jan Martinek Brno University of Technology, Brno, Czech Republic