

## POSTER PROGRAMME

### POSTER AWARD INFORMATION

On all EURADH conferences, the poster presentation of latest results was and is a most important facet of the scientific programme. Thanks to the generous sponsorship by JOWAT AG Detmold (Germany), this role will be emphasised in Friedrichshafen by the Best Poster Award which will be awarded by an international jury.

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- P 01 **D<sub>2</sub>O as a tracer for absorption and reactions of water during the hydrothermal ageing of epoxy-dicyandiamide adhesives**  
J.C. Gaukler, T. Knecht, G. Meistermann, D. Schäfer, W. Possart, Saarland University, Saarbrücken/D
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- P 02 **How does an accelerator influence the molecular dynamics of an epoxy-dicyandiamide adhesive?**  
J.C. Gaukler, O. Devriendt, L. Krogh, W. Possart, Saarland University, Saarbrücken/D
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- P 03 **Mechanical analysis of structural adhesive for marine joints**  
M. Marini, P. Molendi, F. Di Silvestri, E. Rivalta, C. Bonacini, I.C.R. Sprint S.P.A., Reggio Emilia/I
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- P 04 **Surface treatment of vulcanised natural rubber containing noticeable amount of antiozonant paraffin wax moieties**  
A.J. Yañez-Pacios, J.A. Jofre-Reche, J.M. Martín-Martínez, University of Alicante/E
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- P 05 **Different dispersion procedures of nanofillers in thermoplastic polyurethane nanocomposites**  
J. Donate-Robles, University of Alicante/E; S. Livi, J. Duchet-Rumeau, J.F. Gerárd, INSA-Lyon, Villeurbanne/F; J.M. Martín-Martínez, University of Alicante/E
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- P 06 ***In situ* characterisation of chemical interactions between 4,4'-methylene diphenyl diisocyanate and native metal surfaces**  
F. Fug, C. Nies, W. Possart, Saarland University, Saarbrücken/D
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- P 07 **Adsorption and adhesion of methylene diphenyl diisocyanate (MDI) isomers on aluminium**  
C. Nies, F. Fug, C. Otto, J. Summa, W. Possart, Saarland University, Saarbrücken/D
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- P 08 ***cancelled***
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- P 09 **Toughening of polybenzoxazine by in situ polymerisation method**  
K. Hirao, T. Oyama, A. Takahashi, Yokohama National University/J
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- P 10 **Application to epoxy resins of steam explosion lignin derived from softwood**  
Y. Kawano, T. Oyama, A. Takahashi, Yokohama National University/J

- P 11 **Synthesis and thermal properties of new polymer alloys, epoxy resin cured with reactive super engineering plastic**  
Y. Horiuchi, T. Oyama, A. Takahashi, Yokohama National University/J
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- P 12 **Optimisation of adhesive bonding repair processes for carbon fibre reinforced plastics (CFRP) of military aircraft structures**  
J. Holtmannspötter, Bundeswehr Research Institute for Materials, Fuels and Lubricants, Erding/D; F.K. Feucht, Waffensystemkommando der Luftwaffe, Cologne/D; M. Wetzel, J. von Czarnecki, Bundeswehr Research Institute for Materials, Fuels and Lubricants, Erding/D
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- P 13 **Morphology of polyurethanes**  
H. Lützen, Fraunhofer IFAM, Bremen/D; B.K. Kim, Pusan National University/ROK; A. Hartwig, Fraunhofer IFAM, Bremen/D
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- P 14 **Numerical study of deformation behaviour of high performance adhesive tapes influenced by foil backing**  
R. Raghunath, D. Juhre, Deutsches Institut für Kautschuktechnologie e.V., Hannover/D
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- P 15 **DCB specimens of adhesive joints loaded in pure moments**  
J.C. Suarez, G. Ekwa, P. Pinilla, M.A. Herreros, Polytechnic University of Madrid/E
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- P 16 **Direct synthesis of new silane-modified polymers by DMC-alkoxylation**  
A. Lewin, M. Roessing, S. Giessler-Blank, Evonik Industries AG, Essen/D
- 
- P 17 **Cohesive and adhesive test for micro and nanoparticle-based coatings using sonication**  
L. Vonna, W. Heni, University of Haute-Alsace, Mulhouse/F; H. Haidara, Institut de Science des Matériaux de Mulhouse/F
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- P 18 **Heat transfer and fouling setup to test coatings under sub- and boiling conditions**  
M. Schmitt, F. Heib, Saarland University, Saarbrücken/D
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- P 19 **Improvement in adhesive and coating properties of polyolefins, silicone resin and other stable polymeric materials**  
H. Kanazawa, A. Inada, Fukushima University/J
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- P 20 **Adhesive high speed controlled strain rate tests**  
F. Altenwegner, K.F. Reiling, University of Applied Sciences Landshut/D
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- P 21 **Flying through the air: riveted zeppelins and bonded wooden aircraft**  
K.F. Reiling, F. Altenwegner, University of Applied Sciences Landshut/D
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- P 22 **Ageing of polyurethane – mild steel adhesive joints: mechanical and chemical effects**  
J. Huacuja-Sanchez, P. Engel, D. Schäfer, W. Possart, Saarland University, Saarbrücken/D
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- P 23 **Determination of viscoelastic properties in adhesive joints**  
L. Krogh, L. Depollier, W. Possart, Saarland University, Saarbrücken/D

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- P 24 **Viscoelastic properties of adhesive joints: the influence of the metal substrate**  
L. Krogh, L. Depollier, E. Bosset, W. Possart, Saarland University, Saarbrücken/D
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- P 25 **Delamination of thick-adherend steel/CFRP laminate connections**  
N. Yahya, S. Hashim, University of Glasgow/UK
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- P 26 **UV-curable epoxy primer for adhesion in steel reinforced polymer composites**  
B. Golaz, V. Michaud, Federal Polytechnic School of Lausanne/CH
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- P 27 **High strain rate behavior of bonded constructs**  
A. Mitchell, G. Critchlow, Loughborough University/UK; S. Shaw, DSTL, Salisbury/UK;  
M. Aufray, University of Toulouse/F
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- P 28 **Obtaining a model of viscoelastic behavior of mixed adhesive joints and its simulation with Bond Graph's technique**  
R. Ocaña, J.M. Arenas, C. Alía, J.J. Narbón, Polytechnic University of Madrid/E
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- P 29 **AFM based detection of single polymer adhesion and friction on solid-liquid interfaces and thin film interphases**  
B.N. Balzer, T. Hugel, TU München/D
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- P 30 **LUMiFrac – the new centrifuge-based desktop adhesion analyser: a new approach for testing adhesive and tensile strength**  
U. Rietz, D. Lerche, LUM GmbH, Berlin/D; S. Hielscher, U. Beck, BAM – Federal Institute for Materials Research and Testing, Berlin/D
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- P 31 **Fatigue behaviour of adhesive bonded structures**  
S. Frömmel, H.-J. Gudladt, Bundeswehr University, Munich/D
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- P 32 **New variants for the copolymerisation of propylene oxide and carbon dioxide**  
E. Paetzold, R. Bratsch, Leibniz Institute for Catalysis, Rostock/D; U. Kragl, University of Rostock/D; J. Klein, J.-E. Damke, Henkel AG & Co. KGaA, Düsseldorf/D
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- P 33 **Adhesion measurements of metal films on plasma-functionalised polymer foils and specially designed interfaces for optimum coupling**  
R. Mix, S. Hielscher, J.F. Friedrich, U. Beck, BAM – Federal Institute for Materials Research and Testing, Berlin/D
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- P 34 **Atmospheric pressure plasma devices and processings for a wide range of 3D products**  
J. Dutroncy, E. Jouvet, T. Sindzingre, AcXys Technologies, St.-Martin-le-Vinoux/F
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- P 35 **High temperature bonding and post cure behavior of epoxy adhesives**  
H.Y. Kim, S.J. Lee, J.H. Bang, M.S. Kim, J.K. Kim, Korea Institute of Industrial Technology, Incheon/ROK

- P 36 **Effects of additives on the rheological behavior of epoxy adhesives**  
S.J. Lee, H.Y. Kim, M.S. Kim, J.H. Kim, J.K. Kim, Korea Institute of Industrial Technology, Incheon/ROK
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- P 37 **Weldbonding of high strength steels in automotive body-in-white applications**  
G. Weber, BAM – Federal Institute for Materials Research and Testing, Berlin/D; H. Thommes, University of Paderborn/D; T. Bschorr, German Welding Institute SLV Munich/D; O. Hahn, University of Paderborn/D; H. Cramer, German Welding Institute SLV Munich/D; M. Rethmeier, BAM – Federal Institute for Materials Research and Testing, Berlin/D
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- P 38 **Identification of a cohesive zone model for debonding of adhesive joints**  
M. Alfano, G. Lubineau, King Abdullah University of Science and Technology, Thuwal/SAR
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- P 39 **Potentiometric investigation of electrochemical reactions in adhesively bonded joints between different metals**  
P. L. Geiß, University of Kaiserslautern/D
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- P 40 **The effect of material properties on the strength of adhesively bonded thermoplastic composites**  
J.-S. Pap, TU Dresden/D; I. Jansen, Fraunhofer IWS, Dresden/D
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- P 41 **Laser structuring of aluminium surfaces and subsequent organophilic coating for structural bonding**  
T. Schiefer, TU Dresden/D; I. Jansen, Fraunhofer IWS, Dresden/D; R. Frenzel, F. Simon, Leibniz Institute of Polymer Research Dresden/D
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- P 42 **Multifunctional adhesives by integration of carbon nanotubes**  
F. Wehnert, TU Dresden/D; I. Jansen, Fraunhofer IWS, Dresden/D; J. Heinrich, TU Dresden/D
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- P 43 **How to measure curing behavior of smart adhesives?**  
S. Harling, S. Schaible, O. Meincke, Zurich University of Applied Science, Winterthur/CH
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- P 44 **How to make a cylinder roll uphill**  
S. Mondal, A. Ghatak, Indian Institute of Technology Kanpur, UP/IND
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- P 45 **Nanostructured epoxy resin with improved hydrothermal ageing resistance**  
F. Piasecki, CEA/DAM Le Ripault, Monts/F; E. Papon, University of Bordeaux, Pessac/F; J.-F. Salas, CEA/DAM Le Ripault, Monts/F; E. Ibarboure, University of Bordeaux, Pessac/F
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- P 46 **changed to oral presentation**  
Thursday, 20 Sept, 10.50 Alfred-Colsman-Saal
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- P 47 **Material platform for dielectric elastomer actuators**  
T. Köckritz, TU Dresden/D; I. Jansen, Fraunhofer IWS, Dresden/D; R. Luther, A. Richter, TU Dresden/D

- P 48 **The fabrication of dual curable pressure-sensitive adhesives for temporary bonding-debonding**  
S.-W. Lee, J.-W. Park, C.-H. Park, H.-J. Kim, Seoul National University/ROK; J.-Y. Song, J.-H. Lee, Korea Institute of Machinery & Materials, Daejeon/ROK; E.-A. Kim, Ulsan Fine Chemical Industry Center, Ulsan/ROK
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- P 49 **Preparation and characterization of adhesive for through silicone via- multi chip packaging with temporary bonding-debonding adhesive**  
C.-H. Park, J.-W. Park, S.-W. Lee, D.-H. Lim, H.-J. Kim, Seoul National University, Seoul/ROK; J.-Y. Song, J.-H. Lee, Korea Institute of Machinery & Materials, Daejeon/ROK
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- P 50 **UV- and IR-laser pre-treatment of CFRP for adhesive bonding**  
F. Fischer, S. Kreling, K. Dilger, TU Braunschweig/D
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- P 51 **Viscoelasticity effects in adhesive joints**  
M. Budzik, J. Jumel, M. Shanahan, University of Bordeaux, Talence/F
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- P 52 **Instrumented fracture mechanics tests**  
J. Jumel, M. Shanahan, M. Budzik, University of Bordeaux, Talence/F
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- P 53 **Study on curing mechanism and kinetics of diallyl-bearing epoxy resin using sulfur as curing agent**  
G. Zhang, J. Cheng, L. Shi, X. Lin, J. Zhang, Beijing University of Chemical Technology, Changzhou/PRC
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- P 54 **Combined in-situ QCM and FTIR studies of the influence of UV irradiation and relative humidity on TiO<sub>2</sub> particle ensembles**  
B. Torun, C. Kunze, G. Grundmeier, University of Paderborn/D
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- P 55 **Validation approach for adhesive joints in the vehicle industry**  
D. Pletinckx, P. Franssen, P. Campestrini, Flanders' DRIVE, Lommel/B
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- P 56 **Stress analysis and strength evaluation of scarf adhesive joints subjected to static bending moments**  
H. Nakano, Y. Sekiguchi, T. Sawa, Hiroshima University/J
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- P 57 **Stress analysis and strength evaluation of scarf adhesive joints subjected to static tensile loadings**  
H. Nakano, Y. Sekiguchi, T. Sawa, Hiroshima University/J
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- P 58 **Complex flow and dynamic behaviors of an epoxy precursor**  
M. Thomassey, J. Baller, J.K. Krüger, R. Sanctuary, University of Luxemburg/L
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- P 59 **Optimised bonding effects on surfaces as a result of plasma pre-treatment**  
C.N. Dietel, Diener electronic GmbH + Co. KG, Ebhausen/D

## POSTER PROGRAMME

- P 60 **Influence of the mechanical behaviour of different adhesives on an interference-fit/adhesively bonded cylindrical joint**  
G. Gallio, M. Lombardi, P. Fino, L. Montanaro, Politecnico di Torino/I; D. Rovarino, MW Italia S.p.A, Rivoli/I
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- P 61 **Intelligent materials with adaptive adhesion properties from biocompatible comb-like polymer brushes**  
E. Svetushkina, Leibniz Institute of Polymer Research Dresden/D; D. Martina, C. Creton, ESPCI Paris Tech/F; A. Synytska, Leibniz Institute of Polymer Research Dresden/D
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- P 62 **Surface modification of a photo definable epoxy resin with polyamines and polydopamine to improve adhesion with electroless deposited copper**  
D. Schaubroeck, J. De Baets, P. Dubruel, Ghent University, Zwijnaarde/B; L. Van Vaeck, University of Antwerp, Wilrijk,/B; A. Van Calster, Ghent University, Zwijnaarde/B
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- P 63 **TGA-FTIR-MS Studies on pMDI with enhanced fire retardant properties**  
A. Daniliuc, B. Deppe, D. Kruse, R. Marutzky, Fraunhofer Institute for Wood Research WKI, Braunschweig/D

(programme subject to change)