

Peer reviewed publications

Experimental determination of ignition and combustion characteristics of insensitive gun propellants based on RDX and nitrocellulose

L. COURTY*, P. GILLARD*, J. EHRHARDT, B. BASCHUNG

Combustion and Flame, Vol. 229, July 2021, 111402; ©2021 The Combustion Institute. Published by Elsevier Inc. All rights reserved; doi.org/10.1016/j.combustflame.2021.111402

R-01/20/01/000/0/00-00/PR-38/2021

Material behavior description for a large range of strain rates from low to high temperatures: Application to high strength steel

P. SIMON, Y. DEMARTY, A. RUSINEK, G.Z. VOYIADJIS*

Metals 2018, 8, 795; doi:10.3390/met8100795

R-01/13/13/681/9/00-00/PR-205/2021

Characterization and modelling of the mechanical behaviour of metal rings: Application to a brass bullet jacket

A. BRACQ, J.-S. BREST, J. ABRANTES DE SAMPAIO, F. MOITRIER, Y. DEMARTY

Forces in Mechanics 4 (2021) 100030; doi.org/10.1016/j.finmec.2021.100030; DGA UM NAV 2016 90 0905

R-01/13/13/681/9/00-00/PR-229/2021

Morphological characterization and elastic response of a granular material

E. KAESHAMMER, L. BORNE, F. WILLOT*, P. DOKLADAL*, S. BELON*

Computational Materials Science 190 (2021) 110247; doi.org/10.1016/j.commat.2020.110247; © 2020 Elsevier B.V. All rights reserved

R-01/13/01/000/0/00-00/PR-238/2021

Antisolvent addition: An effective method of controlled fluid inclusion formation in RDX crystals

J. COOPER*, L. BORNE, G. COQUEREL*

Crystal Growth Design 2020, 20, 7120–7128; dx.doi.org/10.1021/acs.cgd.0c00604; © 2020 American Chemical Society

R-01/13/01/000/0/00-00/PR-239/2021

► Flight techniques for projectiles

Peer reviewed publications

Software-defined radio based station for projectile tracking and telemetry reception enhancement

C. CAMPO, E. BIEBER, H. BOEGLIN, S. HEHGY, L. BERNARD, J.-M. PAILLOT*

Journal of latex class files, IEEE Transactions on Aerospace and Electronic Systems; ©2020 IEEE;
doi:10.1109/TAES.2020.3042621

R-02/20/02/000/0/00-00/PR-44/2021

Compact bandwidth enhanced cavity-backed magneto-electric dipole antenna with outer G-shaped probe for GNSS bands

A. CAUSSE, K. RODRIGUEZ*, L. BERNARD, A. SHARAIHA*, S. COLLARDEY*

Sensors 2021, 21, 3599; doi.org/10.3390/s21113599

R-02/20/02/000/0/00-00/PR-79/2021

Telemetry antennas withstanding very high accelerations and centrifugal forces

L. BERNARD, H. COVIC, A. ZEINER, A. SCHNEIDER

International Journal of Microwave and Wireless Technologies 1–9; doi.org/10.1017/S1759078721000854

R-02/20/02/000/0/00-00/PR-92/2021

Control for the steering of supersonic fin-stabilized projectiles using pin-based micro-actuators

M. LIBSIG, B. MARTINEZ

IJTAMM

R-02/19/03/000/0/00-00/PR-172/2021

Influence of swirl on the supersonic wake flow structure behind blunt-based axisymmetric afterbodies

S. WEIDNER, R. HRUSCHKA, F. LEOPOLD

J. Fluid Mech. (2021), Vol. 925, A21; doi:10.1017/jfm.2021.465

R-02/19/02/000/0/00-00/PR-188/2021

Publications

Small antenna at 5.4 GHz for 11 mm telemetry-unit in harsh environment

L. BERNARD, N. ETIENNE-BAROUN, F. SAADA

15th European Conference on Antennas and Propagation (EuCAP), Düsseldorf, DE, 22-26 March 2021;
Doi: 10.23919/EuCAP51087.2021.9411404; © IEEE 2021

R-02/20/02/000/0/00-00/PU-53/2021

Small CP cavity-backed magneto-electric antenna with parasitic elements for GNSS Applications

A. CAUSSE, L. BERNARD, A. SHARAIHA*, S. COLLARDEY*

15th European Conference on Antennas and Propagation (EuCAP), Düsseldorf, DE, 22-26 March 2021;
Doi: 10.23919/EuCAP51087.2021.9411228; © IEEE 2021

R-02/20/02/000/0/00-00/PU-54/2021

Challenges of GNSS reception onboard a small UAV in RF-disturbed environment

H. COVIC, A. SCHNEIDER, L. BERNARD

15th European Conference on Antennas and Propagation (EuCAP), Düsseldorf, DE, 22-26 March 2021;
Doi: 10.23919/EuCAP51087.2021.9411404; © IEEE 2021

R-02/20/02/000/0/00-00/PU-58/2021

Transmitting phase-aligned signals for array steering with USRPs X310

C. CAMPO, L. BERNARD, H. BOEGLER, S. HENGY, J.-M. PAILLOT*

European GNU Radio Days 2021, Poitiers, FR, 24-26 June, 2021

R-02/20/02/000/0/00-00/PU-130/2021

Stability conditions for high-angle-of-attack limit-cycles of spin-stabilized projectiles

B. DUTSCHKE, S. WEIDNER, C. MUNDT*

20. STAB-Workshop, Göttingen, DE, 16-17/11/2021; STAB Jahresbericht 2021

R-02/20/01/000/0/00-00/PU-191/2021

Positioner steering and synchronization with antenna weighting using GNU Radio

C. CAMPO, M. MILLA PEINADO, L. BERNARD, H. BOEGLER, S. HENGY, J.-M. PAILLOT*

European GNU Radio Days Online Conference, Poitiers, FR, June 22nd, 2020;

You Tube: Software Defined Radio Academy 2020

R-02/20/02/000/0/00-00/PU-226/2021

Einfluss des Dralls auf den Überschallnachlauf eines längsangeströmten zylindrischen Körpers

S. WEIDNER

Schriftenreihe des Instituts für Strömungsmechanik. KIT Scientific Publishing; doi: 10.5445/KSP/1000118606;
ISBN 978-3-7315-1030-7

R-02/13/16/000/0/00-00/PU-227/2021

Attitude control of a fin-stabilized projectile on a three-axis gimbal in wind tunnel

V. RISS, E. ROUSSEL, E. LAROCHE*

Proceedings of the IEEE 28th Mediterranean Conference on Control and Automation, St Raphaël, FR, 15/09/2021;
© IEEE 2020; doi: 10.1109/MED48518.2020.9183104

R-02/21/03/000/0/00-00/PU-233/2021

Experimental determination of pitch damping coefficients using a wire suspension

C. FRANZMANN, F. LEOPOLD, C. MUNDT*

AIAA SciTech Forum, 19-21 January 2021; VIRTUAL EVENT; DOI: 10.2514/6.2021-0836

R-02/16/02/000/0/00-00/PU-247/2021

Peer reviewed publications

Investigations on the energy chain for a naval railgun

S. HUNDERTMARK

IEEE Transactions on Plasma Science, 2020, 48(11), pp. 3991-3996; ©2020 IEEE;
www.ieee.org/publications/rights/index.html

R-03/19/02/000/0/00-00/PR-13/2021

Towards a model to predict blast propagation around a hemicylindrical barrier

S. TRÉLAT, M.-O. STURTZER, D. ECKENFELS

International Journal of Computational Methods and Experimental Measurements, Vol. 9, No. 4 (2021) 327–338;
© 2021 WIT Press; doi: 10.2495/CMEM-V9-N4-327-338

R-03/19/01/000/0/00-00/PR-245/2021

Investigation of SiC thyristors with varying amplifying gate design

S. SCHARNHOLZ, R. HASSDORF, D. BAUERSFELD, B. VERGNE, L.V. PHUNG*, D. PLANSON*

ECSCRM 2020, 13th European Conference on Silicon Carbide and Related Materials, Tours, FR, 24-28 October 2021; Materials Science Forum, ID of the contribution: We-P-19 (www.ecscrm-2020.com)

R-03/13/05/000/0/00-00/PR-248/2021

Publications

Influence of surface roughness on 1000 m/s high speed and 200 kA high current electric sliding contacts

C. BIETHAN, F. ALOUAHABI, M. SCHNEIDER

10th International Conference on Tribology – BALKANTRIB '20, online, 20.-22.05.21

R-03/19/03/000/0/00-00/PU-127/2021

Wear phenomena at high speed electric sliding contacts

C. BIETHAN, M. SCHNEIDER

7th European Conference on Tribology, Wien, AT

Book of Abstracts, p. 105, Editor: N. Dörr, C. Gachot, F. Franek, M. Kalin, E. Ciulli, R. Crockett; Publisher: Österreichische Tribologische Gesellschaft, ISBN 978-3-901657-60-3

R-03/19/03/829/1/00-00/PU-134/2021

Caractérisation électrique de thyristors SiC pour des circuits à stockage inductifs

S. SCHARNHOLZ, V. BROMMER, B. VERGNE

Symposium de Génie Électrique, SGE 2021, Nantes, FR, 6-8 juillet 2021

R-03/13/05/000/0/00-00/PU-169/2021

Peer reviewed publications**Effects of pump pulse energy and repetition rate on beam quality in a high-power mid-infrared ZnGeP₂ OPO**

M. PIOTROWSKI, M.A. MEDINA*, M. SCHELLHORN, G.SPINDLER*,
A. HILDENBRAND-DHOLLANDE

Optics Express, Vol. 29, No. 2, pp. 2577-2586, 18 January 2021; © 2021 Optical Society of America;
doi.org/10.1364/OE.414074

R-05/21/01/000/0/00-00/PR-8/2021

Beam quality and efficiency of ns-pulsed high-power mid-IR ZGP OPOs compared in linear and non-planar ring resonators

M.A. MEDINA*, M. PIOTROWSKI, M. SCHELLHORN, F.R. WAGNER*, A. BERROU,
A. HILDENBRAND-DHOLLANDE

Optics Express 21727, Vol. 29, No. 14, 5 July 2021; doi.org/10.1364/OE.430717; © 2021 Optical Society of America

R-05/21/01/601/4/00-00/PR-249/2021

Diffraction limited 195-W continuous wave laser emission at 2.09 μm from a Tm³⁺, Ho³⁺-co-doped single-oscillator monolithic fiber laser

A. MOTARD, C. LOUOT, T. ROBIN*, B. CADIER*, I. MANEK-HÖNNINGER*, N. DALLOZ,
A. HILDENBRAND-DHOLLANDE

Optics Express 6599, Vol. 29, No. 5, 1 March 2021; © 2021 Optical Society of America; doi.org/10.1364/OE.416443

R-05/21/01/601/4/00-00/PR-255/2021

Synthesis, characterization and nonlinear optical properties of polylactide and PMMA based azophloxine nanocomposites for optical limiting applications

O. MULLER, C. HEGE*, M. GUERCHOUX, L. MERLAT

Materials Science and Engineering B 276 (2022) 115524; doi.org/10.1016/j.mseb.2021.115524

R-05/21/04/000/0/00-00/PR-265/2021

Publications**Étude du transfert radiatif dans les matériaux composites semi-transparents à différentes températures**

F. RETAILLEAU, V. ALLHEILY, L. MERLAT, J.-F. HENRY*, J. RANDRIANALISOA*

SFT 2021, 29e Congrès Annuel de la Société Française de Thermique, Belfort, FR, 01-03/06/2021. Webconférence

R-05/21/03/000/0/00-00/PU-181/2021

Experimental study of radiative transfer in semi-transparent composite materials at different temperatures

F. RETAILLEAU, V. ALLHEILY, L. MERLAT, J.-F. HENRY*, J. RANDRIANALISOA*

EUROTHERM 2020, 8th European Thermal Sciences Conference, Lisbon, Portugal, 19-23 September 2021. Virtual Conference

R-05/21/03/000/0/00-00/PU-182/2021

Experimental and numerical studies of thermal lensing and gain guiding effects in a high-power ZGP OPO

M. PIOTROWSKI, M.A. MEDINA*, M. SCHELLHORN, C. MUELLER, G. SPINDLER*,
A. HILDENBRAND-DHOLLANDE

2021 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC), 2021, pp. 1-1; © 2021 IEEE; doi: 10.1109/CLEO/Europe-EQEC52157.2021.9542248

R-05/21/01/601/4/00-00/PU-241/2021

Free-running and imposed-wavelength cavities for high power continuous-wave Tm³⁺, Ho³⁺ codoped single-oscillator fiber laser

A. MOTARD, C. LOUOT, T. ROBIN*, B. CADIER*, N. DALLOZ, A. HILDENBRAND-DHOLLANDE,
I. MANEK-HÖNNINGER*

2021 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC), 2021, pp. 1-1; © 2021 IEEE; doi: 10.1109/CLEO/Europe-EQEC52157.2021.9542135

R-05/21/01/601/4/00-00/PU-256/2021

Continuous wave and pulsed modes of operation of a high power 2.09 μm monolithic single oscillator Tm³⁺, Ho³⁺-codoped fiber laser

A. MOTARD, C. LOUOT, I. MANEK-HÖNNINGER*, N. DALLOZ,
A. HILDENBRAND-DHOLLANDE

Advanced Solid State Laser (ASSL) Conference, Toronto, CA, October 03-07, 2021

R-05/21/01/000/0/00-00/PU-257/2021

Synthesis, characterization and nonlinear optical properties of polylactide and PMMA based azophloxine nanocomposites for optical limiting applications

O. MULLER, C. HEGE, M. GUERCHOUX, L. MERLAT

Materials Science and Engineering B 276 (2022) 115524; doi.org/10.1016/j.mseb.2021.115524

R-05/21/04/000/0/00-00/PU-265/2021

Investigation de cavités OPO basées sur des cristaux de ZGP pour la génération de forte puissance moyenne dans le moyen-infrarouge

A. HILDENBRAND-DHOLLANDE, M. MEDINA, M. PIOTROWSKI, A. BERROU

8e Congrès Optique de la Société Française d'Optique (SFO), (JNCO 2021), Dijon, FR, 05-09 juillet 2021

R-05/21/01/000/0/00-00/PU-285/2021

► Protection technologies, security, situational awareness

Peer reviewed publications

Motion adaptive deblurring with single-photon cameras

T. SEETS*, A. INGLE*, M. LAURENZIS, A. VELTEN*

Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision, pp.1944-1953, 2021; ©2021 IEEE; DOI 10.1109/WACV48630.2021.00199

R-04/19/01/000/0/00-00/PR-1/2021

Characterization of cartilage implication in protected hearing perception during direct vibro-acoustic stimulation at various locations

C. BLONDÉ-WEINMANN, T. JOUBAUD, V. ZIMPFER, P. HAMERY, S. ROTH

Applied Acoustics, Vol. 179, August 2021, 108074; © 2021 ELSEVIER; doi.org/10.1016/j.apacoust.2021.108074

R-04/20/01/000/0/00-00/PR-61/2021

Blast-related lung injury risk estimation based on chest wall velocity

J. BOUTILLIER, N. PRAT*, S. DE MEZZO, P. MAGNAN, P. NAZ

Human Factors and Mechanical Engineering for Defense and Safety (Editor: Springer); doi.org/10.1007/s41314-021-00038-5

R-04/17/01/000/0/00-00/PR-70/2021

Effect of spray drying treatment on the optical properties of Mg–Al

R. STOCKY, J. BOEHMLER, S. LEMONNIER, P. GIBOT, Y. LORGUILLOUX*, A. LERICHE*

Open Ceramics 6 (2021) 100102; doi.org/10.1016/j.oceram.2021.100102

R-04/19/04/000/0/00-00/PR-74/2021

Chest wall velocity and intra-thoracic pressure impulse as relevant parameters in predicting thoracic injury for short-duration blast wave

J. BOUTILLIER, S. DE MEZZO, P. MAGNAN, P. NAZ, N. PRAT*

Personal Armour Systems Symposium (PASS), Copenhagen, Denmark, 11-15 October 2021; (PASS 2020 postpone in 2021)

R-04/17/01/000/0/00-00/PR-89/2021

Explosion mitigation by metal grid with water curtain

T. SCHUNCK, M. BASTIDE, D. ECKENFELS, J.-F. LEGENDRE

Shock Waves, published online: 26 May 2021; © Springer Nature 2021; doi.org/10.1007/s00193-021-01004-y

R-04/16/02/000/0/00-00/PR-121/2021

Blast mitigation by perforated plates using an explosive driven shock tube: Study of geometry effects and plate numbers

T. SCHUNCK, D. ECKENFELS

SN Applied Sciences (2021) 3:731, Springer Nature Journal; doi.org/10.1007/s42452-021-04720-3

R-04/16/04/000/0/00-00/PR-132/2021

Experimental study of explosion mitigation by deployed metal combined with water curtain

T. SCHUNCK, D. ECKENFELS

Appl. Sci. 2021, 11, 6539, MDPI, Applied Science; doi.org/10.3390/app11146539

R-04/16/04/000/0/00-00/PR-133/2021

Sacrificial cladding with brittle materials for blast protection

L. BLANC, T. SCHUNCK, D. ECKENFELS

Materials 2021, 14(14), 3980; doi.org/10.3390/ma14143980; *Impact Factor* (2021): 3.623

R-04/16/01/000/0/00-00/PR-135/2021

Multimodal particle size distribution by mixing nanopowders for full densification of spark plasma sintered SiC ceramics

S. LEMONNIER, F. MOITRIER, J. ROSSIT, T. BOURRE, P. ROSEIRO, G. GUETTER, J. BOEHLER

Open Ceramics 7 (2021) 100164; DOI: 10.1016/j.oceram.2021.100164

R-04/19/04/000/0/00-00/PR-164/2021

Experimental and numerical study on the interactions between high velocity long-rods and steel-elastomer bulging armor

T. FRAS

15th International Conference of Multiphysics (MULTIPHYSICS 2020), Int. Jnl. of Multiphysics, Vol. 15, No. 2, 2021; doi: 10.21152/1750-9548.15.2.185

R-04/16/02/000/0/00-00/PR-198/2021

Experimental and numerical study on a non-explosive reactive armour with the rubber interlayer applied against kinetic-energy penetrators: The 'bulging effect' analysis

T. FRAS

Materials 2021, 14, 3334; doi.org/10.3390/ma14123334

R-04/16/02/000/0/00-00/PR-199/2021

Performance of Li-ion pouch battery under a high-velocity impact: experiment and numerical simulation

T. FRAS, P. PAWLOWSKI*, W. LI*, T. WIERZBICKI*

International Journal of Impact Engineering 155 (2021) 103915; © 2021 Elsevier Ltd. All rights reserved.; doi: 10.1016/j.ijimpeng.2021.103915

R-04/16/02/000/0/00-00/PR-200/2021

Modelling of bulging steel-elastomer armour applied against long-rod projectiles

T. FRAS

ISMTA 2020, Journal of Physics: Conference Series, 1855 (2021) 012016; doi: 10.1088/1742-6596/1855/1/012016

R-04/16/02/000/0/00-00/PR-201/2021

Characterization of the mechanical behavior of a lead alloy, from quasi-static to dynamic loading for a wide range of temperatures

Y. COGET, Y. DEMARTY, A. RUSINEK

Materials 2020, 13, 2357; doi:10.3390/ma13102357

R-04/19/05/000/0/00-00/PR-204/2021

Hallucinating a cleanly labeled augmented dataset from a noisy labeled dataset using GANs

F. CHIARONI, M.-C. RAHAL*, N. HUEBER, F. DUFAUX*

26th IEEE International Conference on Image Processing (ICIP), Sept. 2019, Taipei, Taiwan; hal.archives-ouvertes.fr/hal-02054836; © 2019 IEEE

R-04/16/07/000/0/00-00/PR-208/2021

Novelty detection with self-organizing maps for autonomous extraction of salient tracking features

Y. BERNARD, N. HUEBER, B. GIRAU*

WSOM+, 13th International Workshop on self-organizing maps, learning vector quantization, clustering and data visualization, Barcelona, SP; © 2019 Springer

R-04/16/07/000/0/00-00/PR-209/2021

Bio-inspired Perception Sensor (BIPS) concept analysis for embedded applications

L. SARRABEZOLLES, A. MANZANERA*, N. HUEBER

Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications, Eds.: Vera-Rodriguez R., Fierrez J., Morales A.; CIARP 2018. Lecture Notes in Computer Science, Vol. 11401; © 2019 Springer International Publishing; doi.org/10.1007/978-3-030-13469-3_50

R-04/16/07/000/0/00-00/PR-212/2021

A fast algorithm to find best matching units in self-organizing maps

Y. BERNARD, N. HUEBER, B. GIRAU*

Artificial Neural Networks and Machine Learning, Eds.: Farkaš I., Masulli P., Wermter S.; 29th International Conference on Artificial Neural Networks, ICANN 2020. Lecture Notes in Computer Science, Vol. 12397; © Springer Nature Switzerland AG 2020; doi.org/10.1007/978-3-030-61616-8_66

R-04/16/07/000/0/00-00/PR-216/2021

Novelty detection in images using vector quantization with topological learning

Y. BERNARD, N. HUEBER, B. GIRAU*

ICECS 2020, 27th IEEE International Conference on Electronics Circuits and Systems, Nov. 2020, Glasgow/Virtual, United Kingdom; doi: 10.1109/ICECS49266.2020.9294957; ©2020 IEEE

R-04/16/07/000/0/00-00/PR-217/2021

Self-Supervised Learning for Autonomous Vehicles Perception: A Conciliation Between Analytical and Learning Methods

F. CHIARONI, M.-C. RAHAL*, N. HUEBER, F. DUFAUX*

IEEE Signal Processing Magazine; Volume 38, Issue 1, January 2021; 1053-5888/21; doi: 10.1109/MSP.2020.2977269; ©2021IEEE

R-04/16/07/000/0/00-00/PR-218/2021

Blast wave mitigation with galvanised polyurethane foam in a sandwich cladding

L. BLANC, A. JUNG, A. KLEINE, M.-O. STURTZER

32nd International Symposium on Shock Waves, Singapore, July 14–19, 2019. Shock Waves, 18 October 2021; doi.org/10.1007/s00193-021-01032-8

R-04/16/01/000/0/00-00/PR-228/2021

Counter-examples generation from a positive unlabeled image dataset

F. CHIARONI, G. KHODABANDELOU*, M.-C. RAHAL*, N. HUEBER, F. DUFAUX*

Pattern Recognition 107 (2020) 107527; © 2020 Elsevier Ltd. All rights reserved; doi.org/10.1016/j.patcog.2020.107527

R-04/16/07/000/0/00-00/PR-246/2021

High-velocity impacts of pyrophoric alloy fragments on thin armour steel plates

E. SANTAMARIA FERRARO, M. SEIDL, T. DE VUYST*, N. FADERL

Materials 2021, 14; www.mdpi.com/journal/materials; doi.org/10.3390/ma14164649

R-04/20/03/000/0/16-00/PR-291/2021

Oblique impact of a 7.62x39 mm projectile on ceramic coated aramid

M. SEIDL, H. LIAO*, M. KERN*

PASS2020, Copenhagen, 28.09.2020; Proceedings book: ISBN 9789082927313

R-04/16/02/000/0/00-00/PR-292/2021

Effects of impedance mismatches on impulse wave's propagation at the outer ear: A preliminary numerical investigation

C. BLONDÉ-WEINMANN, P. HAMERY, T. JOUBAUD, V. ZIMPFER, S. ROTH

46ème congrès de la Société de Biomécanique, Saint-Etienne, FR, 25-27/10/2021; Computer Methods in Biomechanics and Biomedical Engineering, Vol. 24, Suppl. 1 (2021); 10.1080/10255842.2021.1978758

R-04/20/01/000/0/00-00/PR-307/2021

Publications

Evaluation tools of the protective capability of thoracic ballistic-proof equipment under blast exposure

J. BOUTILLIER, N. PRAT*, S. DE MEZZO, P. MAGNAN, P. NAZ

Blast Injury Conference, Online event (planned at Imperial College of London, London, GB), July 8-9, 2021

R-04/17/01/000/0/00-00/PU-104/2021

Combinaison des deux formes du principe d'imagerie active à crénelage temporel multi-longueurs d'onde pour l'imagerie à quatre dimensions

A. MATWYSCHUK

Congrès OPTIQUE, Dijon, FR, 05-09 juillet 2021

R-04/19/02/000/0/00-00/PU-125/2021

A comprehensive review on experimental analyses performed on animals and PMHS to investigate blast-induced Traumatic Brain Injuries

N. ELSTER, J. BOUTILLIER, N. BOURDET*, P. MAGNAN, P. NAZ, R. WILLINGER*, C. DECK*

Blast Injury Conference 2021, Imperial College London, UK, 08-09/07/2021 - Online

R-04/17/01/000/0/00-00/PU-148/2021

Räumliches 3D-Audio zur Verbesserung des Gehörschutzes von Soldaten

P. NOWAK*, U. ZOELZER*, L. KROENER, V. ZIMPFER

Wehrwissenschaftliche Forschung - Jahresbericht 2020. Wehrwissenschaftliche Forschung für deutsche Streitkräfte

R-04/15/02/000/0/00-00/PU-156/2021

Critical analysis of brain injury mechanisms of instrumented subjects under blast exposure

N. ELSTER, J. BOUTILLIER, P. MAGNAN, P. NAZ, R. WILLINGER*, C. DECK*

Congrès des Jeunes Chercheurs en Mécanique 2021

R-04/17/01/000/0/00-00/PU-162/2021

* not member of ISL

Passive imaging of single photon flux: Strategies for de-noising, motion blur reduction and super-resolution up-scaling

M. LAURENZIS, T. SEETS*, E. BACHER*, A. INGLE*, A. VELTEN*

Proc. SPIE 11868, Emerging Imaging and Sensing Technologies for Security and Defence VI, 1186805 (12 September 2021); © 2021 SPIE; doi: 10.1117/12.2598445

R-04/19/01/000/0/00-00/PU-206/2021

Invited paper

Bi-focal unattended ground sensor concept for high resolution and wide field-of-view real-time situational awareness

N. HUEBER, A. PICHLER, C. HENNEQUIN, P. VOISIN, P. RAYMOND, L. SARRABEZOLLES, L. DIDIER

Proceedings Volume 11163, Emerging Imaging and Sensing Technologies for Security and Defence IV; 111630F (2019); doi.org/10.1117/12.2536654; © 2019 SPIE

R-04/16/07/000/1/00-00/PU-207/2021

Involvement of the outer ear's cartilage and soft-tissues in hearing protection limitation during high-level impulse noise exposition

C. BLONDÉ-WEINMANN, T. JOUBAUD, V. ZIMPFER, P. HAMERY, S. ROTH

27th International Congress on Sound and Vibration, ICSV27; (Prague, CZK) Virtual conference; 11-16 July 2021

R-04/20/01/000/0/00-00/PU-219/2021

Some ideas on sensors and models fusion in neuromorphic systems

Y. BERNARD, N. HUEBER, B. GIRAU*

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R-04/16/07/000/0/00-00/PU-258/2021

Noise reduction measurement with subjects and artificial heads

V. ZIMPFER, P. HAMERY, T. JOUBAUD

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Experimentelle und numerische Untersuchungen eines Gewehrprojektil-Abprallers vom Soldatenhelm

M. SEIDL, N. FADERL, R. NÜSING, M. BECKER*

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R-04/16/02/000/0/00-00/PU-288/2021

Investigation of fragmentation of pyrophoric alloy samples during Taylor test using SPH

E. SANTAMARIA-FERRARO*, M. SEIDL, T. DE VUYST*

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R-04/20/03/000/0/16-00/PU-290/2021

Numerical investigations on 7.62x39 mm projectile ricochet off aramid plates

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R-04/16/02/000/0/00-00/PU-293/2021

Investigation of fragmentation of pyrophoric alloy samples during Taylor test using SPH

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Numerical investigations on 7.62x39 mm rifle projectile behaviour upon impact

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R-04/16/02/807/2/00-00/PU-317/2021