



LWAG - Light-Weight Armour for Defence & Security

16-17 March 2011 - Coler-California Visitors Center, Technion, Haifa, Israel

New Concepts in Armour Engineering

TUESDAY	MARCH 15, 2011
10:00 - 17:00	Plasan tour
18:00	Return to Hotel
WEDNESDAY	MARCH 16, 2011
08:30 - 09:30	REGISTRATION
09:30 - 10:45	OPENING SESSION – Chair: F. BARTHELEMY
09:30 - 10:00	Welcome Address and Greetings
10:00 - 10:45	Keynote Lecture: A new approach to the penetration of rigid projectiles and long rods Z. Rosenberg and E. Dekel
10:45 - 11:15	COFFEE BREAK
11:15 - 12:30	SESSION 2– Chair: J.A. RODRIGUEZ-MARTINEZ
11:15 - 11:40	<i>An overview of materials for ballistic protection today and tomorrow</i> F. Barthelemy and Y. Yeshurun
11:40 - 12:05	<i>Experimental study on the behavior of tufted RTM composites under high-velocity impact</i> A. Rusinek, P. Deconinck, P. Chevrier and F. Ravallier
12:05 - 12:30	<i>Modeling the influence of machining copper liners on the formation process of Explosively Formed Projectiles (EFPs)</i> E. Shterman-Cohen and M.B. Rubin
12:30 - 13:30	LUNCH
13:45 - 15:30	SESSION 3– Chair: F. TEIXEIRA-DIAS
13:45 - 14:10	<i>Temperature increase in ES steel sheets subjected to perforation by hemispherical projectiles</i> A. Rusinek, J. A. Rodríguez-Martínez, A. Arias, P. Chevrier and R. Bernier
14:10 - 14:35	<i>Study of impact behaviour of three warp interlock structures. Comparison with existing protections.</i> M. Lefebvre, F. Boussu and D. Coutellier
14:35 - 15:05	<i>The ballistic performance of PMMA and PC plates subjected to inclined impact of armor piercing projectile</i> A. Dorogoy, D. Rittel and A. Brill

15:05 - 15:30 *Comparison of the microstructural static and dynamic behavior of a commercial titanium alloy Ti-6Al-4V*
F. Coghe, W. Tirry, J. Peirs, P. Verleysen and L. Rabet,

15:30 - 16:00 **COFFEE BREAK**

16:00 - 17:30 **SESSION 4-Chair: K. THORAL-PIERRE**

16:00 - 16:25 *Investigation of the effects of prestressing on the ballistic behavior of alumina: experiments & numerical modeling*

A. H. Gassman, L. Levin, V. Paris, A. Ya'akovovich and E. Ran

16:25 - 16:50 *Development of engineering models for the support of hybrid armour development*

G. Roebroeks and E. Carton

16:50 - 17:05 *Initiation of multiple shear bands under high pressures in collapsing thick-walled cylinders*

Z. Lovinger, A. Rikanati, Z. Rosenberg and D. Rittel

17:05 - 17:30 *Simulation of a full metal jacket bullet in aviation*

D. John

17:30 - 18:30 **OPEN DISCUSSION**

18:30 **Departure for Dinner** (from the Technion)

THURSDAY, MARCH 17, 2011

08.30 - 10:05 **SESSION 5-Chair: M.P. DARIEL**

08:30-09:15 **Keynote Lecture:** *High rate behavior of materials and their ballistic performance*

L.W. Meyer and N. Herzig

09:15-09:40 *Separation and velocity dependence of the drag force applied to a rigid ovoid of Rankine nosed projectile penetrating an elastic-perfectly-plastic target*

M.B. Rubin and L. Rapoport

09:40-10:05 *Influence of aluminum alloy skins on the response to low velocity impact of sandwich plates with aluminum foam core*

I. Irausquín, J.L. Pérez-Castellanos and F. Teixeira-Dias

10:05-10:30 **COFFEE BREAK**

10:30 - 12:30 **SESSION 6-Chair: D. DURBAN**

10:30-10:55 *Peptide nanostructures as a new type of material reinforcement*

A. Neuberger

10:55-11:20 *Blast composite absorber: tests and simulation correlation*

K. Thorral-Pierre, J. Raynal, H. Perrin, J. Mespoulet and P. Hereil

11:20-11:45 *Perforation of ductile porous plates*

T. Cohen and D. Durban

11:45- 12:10 *Experimental and computational study of high velocity fragment impact*

F. Rondot, J. Nussbaum, K. Thorral Pierre, M. Lequin , Y.Quirion, D.Vallée and E.Petitpas

12:10 - 12:30	<i>Thermo-viscoplastic behaviour of AA 2024-T3 aluminum sheets subjected to low velocity perforation at different temperatures</i> J. A. Rodríguez-Martínez, A. Rusinek and A. Arias
12:30-13:30	LUNCH
13:30 - 15:30	SESSION 7: Y. YESHURUN
13:30 - 14:30	Dynamic Fracture Laboratory Tour
14:35 - 15:05	<i>Experimental study on ceramics for ballistic protection</i> D. Vallée, E. Petitpas and C. Coureau
15:05 - 15:30	<i>On the method of modeling EFP</i> A. Malka
15:30 - 16:00	COFFEE BREAK
16:00 -	SESSION 8: Z. LOVINGER
16:00 - 16:25	<i>Reaction-bonded boron carbide, recent developments</i> N. Frage and M.P. Dariel
16:25 - 16:50	<i>Equal-channel angular pressing as processing tool for grain refinement - focus on processing, optimisation and strain-rate effects.</i> L.W. Meyer, M.Hockauf and. N. Herzig
16:50 - 17:15	PLASAN PRESENTATION
17:15 - 17:30	CONCLUDING REMARKS
18:30	DINNER