15.00 - 16.30 **Introduction to poster session**
(34 presentations of posters - 3 minutes each)

16.30 - 16.45 **Coffee break**

16.45 - 17.45 **Poster session**

18.30 **Tour around Gdansk**
20.00 **Gala Dinner**

12 May 2006 FRIDAY

9.00 – 10.45 **Session 7**
Thermoregulation systems for protective clothing

Chairperson: **G. Havenith,** *Loughborough University, UK*
Co-chair: **R. Ilmarinen,** *FIOH, FINLAND*

9.00 **Safe&Cool, an innovative protective workwear interliner**
S. Carosio – *D'Appolonia SpA, ITALY,*
G. Bartkowiak, A. Kurczewska – *CIOP-PIB, POLAND*

9.15 **High visibility and passive cooling integrated in workplace clothing**
R. M. Laing, M. J. Matthews, B. E. Niven – *University of Otago, NEW ZEALAND*

9.30 **Simulator for modeling protective clothing and microclimate cooling system**
I. Yermakowa – International Center for Information Technologies and Systems UNESCO, UKRAINE

9.45 **Influence of different parameters on cooling efficiency of liquid circulating garments**
J. Wang, J.P. Dionne, A. Makris - Med-Eng System Inc., CANADA

10.00 **Active clothing protecting against cold**
A. Kurczewska – *CIOP-PIB, POLAND*

10.15 **Thermoisulation parameters of membrane and wool type fabrics**
I. Frydrych, W. Sybilska, I. Jasińska – *Technical University of Łódź, POLAND*

10.30 **Discussion**

10.45 - 11.15 **Coffee break**

11.15 – 13.00 **Session 8**
Human heat balance in protective clothing – THERMPROTECT project

Chairperson: **R. Rossi,** *EMPA, SWITZERLAND*
Co-chair: **P. Bröde,** *University of Dortmund, GERMANY*

11.15 **Introduction to THERMPROTECT scope and objectives**
G. Havenith – *Loughborough University, UK*

11.30 **Evaporative Cooling in Protective Clothing**
G. Havenith, X. Wang – *Loughborough University, UK*
M. Richards – *EMPA, SWITZERLAND*
V. Candas – *CEPA CNRS, FRANCE*
H. Meinander – *Tampere University of Technology, FINLAND*

11.45 **Dry and wet heat transfer through protective clothing dependent on the clothing properties and climatic conditions**
M. Richards, R. Rossi – *EMPA, SWITZERLAND*
G. Havenith – *Loughborough University, UK*
V. Candas – *CEPA CNRS, FRANCE*
H. Meinander – *Tampere University of Technology, FINLAND*

12.00 **Effects of heat radiation on the heat exchange with protective clothing – a thermal manikin study**
P. Bröde - *Institut für Arbeitsphysiologie an der Universität Dortmund, GERMANY*
V. Candas - *CEPA CNRS, FRANCE*
K. Kuklane - *Lund University, SWEDEN*
E. den Hartog - *TNO, THE NETHERLANDS*
G. Havenith - *Loughborough University, UK*

12.15 **The comparison of thermal properties of protective clothing using dry and sweating manikins**
C. Gao, I. Holmér – *Lund University, SWEDEN*
J. T. Fan, X. F. Wan, Y. S. J. Wu – *The Hong Kong Polytechnic University, HONG KONG*
G. Havenith – *Loughborough University, UK*

12.30 **Modelling the metabolic effects of protective clothing**
L. Dorman, G. Havenith – *Loughborough University, UK*

12.45 **Discussion**

13.00 – 14.00 **Lunch break**

14.00 - 15.30 **Session 9**
Performance of protective clothes and gloves during wear life

Chairperson: **E. Korhonen,** *FIOH, FINLAND*
Co-chair: **P. Paszkiewicz,** *BGIA, GERMANY*

14.00 **Care and maintenance of protective clothing. The view of textile rental services**
R. Long – *European Textile Services Association, Belgium*

14.15 **Prediction of clothing thermal insulation and moisture vapour resistance under "walking" motion and windy conditions**
J. Fan, X. Qian – *The Hong Kong Polytechnic University, HONG KONG*

14.30 **Sustained performance of personal protective equipment during wearlife and the implications towards harmonized European standards, risk assessment and user specifications**
A. M. Fries, H. Eichinger – *DuPont International S.A., SWITZERLAND*

14.45 **Assessment of PPE ensemble compatibility: Thermo-physiological methodology for assessment of firefighter PPE according to Draft BS 8469**
D. Bethea, C. Millard, N. Vaughan – *HSL, UK*

15.00 **A manufacturer's report about testing of gastight Chemical Protection Suits**
K. M. Rueck – *Draeger Safety, GERMANY*

15.15 **Discussion**

15.30 **Closing of the conference**

POSTER SESSION

1.European fire fighter clothing trends and technical evolutions
Bader Y., Capt A., *DuPont Personal Protection, SWITZERLAND*

2.Reference materials for test method of resistance to radiant heat penetration
Bartkowiak G., Krzemińska S., *CIOP-PIB, POLAND*

3.Determining temperature regulating factor of apparel fabrics containing phase change material
Bendkowska W., Gonciarz-Wach M., Tysiak J., Grabowski L., Blejzyk A., *Textile Research Institute, Poland*

4.Motorcycle helmets ventilation and heat transfer characteristics
Bogerd C.P., Brühwiler P. A., *EMPA, SWITZERLAND*

5.Sol-gel coatings of plasma modified polypropylene fabric for gas defence
Cireli A., Kutlu B., Onar N., Kayatekın I.,Celik E., Dokuz Eylul University, *TURKEY*
Mutlu M., Hecettepe University, *TURKEY*

6.A proposed heat transmission test for single layer fabrics results of interlaboratory trials
Crown E. M., Lawson L., Ackerman M. Y., Gonzalez J., Dale J. D., *University of Alberta, CANADA*

7.Optimizing fabric characteristics for balanced protection in cleanroom garments
Cybulska M., Schiffelbein P., *Technical University of Lodz, POLAND*

8.Development and application of astm f2371-05 – standard test method for measuring the performance of personal cooling systems using sweating manikins
Dionne J-P., Wang J., *Research and Development Med-Eng System Inc, CANADA*
McCullough E. A., *Institute for Environmental Research, USA*

9.Effects of short wave radiation and radiation area on human heat strain in reflective and non-reflective protective clothing
Es van E. M., Hartog den E. A., Bröde P., Candas V., Heus R., Havenith G., Holmer I., Meinander H. Nocker W., Richards M., *THERMPROTECT network*

10.Effects of the properties of T-shirts on wearers' comfort sensations
Kar F., Fan J., Yu W., *Hong Kong Polytechnic University, HONG KONG*

11.Evaluation of dexterity tests for gloves
Gauvin C., Tellier C., Daigle R., Petitjean-Roget T., *IRSST, CANADA*

12.UV protective cotton fabrics
Kaihong Qi, Xin J., *Hong Kong Polytechnic University, HONG KONG*

13.Polish protective clothing market enterprises' adjustment to operation in the single European market
Koszewska M., *Technical University of Lodz, POLAND*

14. New filtering materials including nanofibres
Krucińska I., Klata E., Chrzanowski M., Majchrzycka K. – *Technical University of Łódź, POLAND*

15.Determination of the barrier material resistance to permeation by organic mixtures
Krzemińska S., *CIOP-PIB, POLAND*

16.Effects of natural solar radiation on manikin heat exchange
Kuklane K., Gao C., Holmér I., *Lund University, SWEDEN and THERMPROTECT network*

17.Heat and moisture transfer from skin to environment through fabrics: a mathematical model including radiation and surface diffusion.
Min K., Son Y., Kim C., *Korea University, KOREA*
Lee Y., Hong K., *Chungnam National University, KOREA*

18.The evaluation of the effect of use of high visibility clothing on preservation of its protective properties
Łężak K., Bartkowiak G., *CIOP-PIB, POLAND*

19.Protective clothing and other personal protective equipment against high temperature liquid splashes for recovery boiler workers
Mäki S., Koskinen H., Mäkinen H., *FIOH, FINLAND*

20.Physiological response during exercise in a hot environment in chemical protective clothing
Marszałek A., *CIOP-PIB, POLAND*

21.Determining body odour in knit fabrics
McQueen R.H., Laing R., M., Niven B. E., *University of Otago, NEW ZEALAND*

22.Test methods for the thermoregulatory properties of textiles
Meinander H., *Tampere University of Technology, FINLAND*

23.Examination of domestic and commercial washing machines from the point of view of effects on washing of PPE´s
Nasadil P., *Textile Testing Institute, CZECH REPUBLIC*

24.Speed-march performance while wearing a respirator
Reffeltrath P., Tan K., *TNO, THE NETHERLANDS*

25.A manned test for evaluating slipperiness for boots on icy surface
Rintamäki H., Oksa J., Mäkinen T., Påsche A., *FIOH, FINLAND*

26.Gastight chemical resistant elastomer socks
Rück K.M., *Draeger Safety, GERMANY*

27.Mapping body armor design and customer performance requirements
Schiffelbein P., *DuPont Engineering, USA*

28.Prediction of operator efficiency in apparel manufacturing using time series based artificial Neural network
Song B.L., Wong W.K., Fan J., Chan S.F., *Hong Kong Polytechnic University, HONG KONG*

29.End-of-service-life indicators for chemical protective gloves
Szczecińska K., *CIOP-PIB, POLAND*

30.Photometric properties of visibility accessories for non-professional use on the Finnish market
Tammela E., *FIOH, FINLAND*

31.Assessing the fogging resistance of complete eye protectors
Webb D., Vaughan N., *HSL, UK*

32.Interlaboratory comparative tests, analysis of test results and assessment of the colour fastness to perspiration
Werner J., Napieralska A., Górski M., *TRICOTEXTIL, POLAND*

33.Criteria and assessment of mechanical properties of fabrics destined for the protective clothing in the light of harmonized standards
Witkowska B., Frydrych I., *The Institute of Textile Materials Engineering, POLAND*

34.Application of sympatex reflexion in protective wear enduses
Wittmann G., Ven H., Drinkmann M., *Sympatex Technologies GmbH, GERMANY*