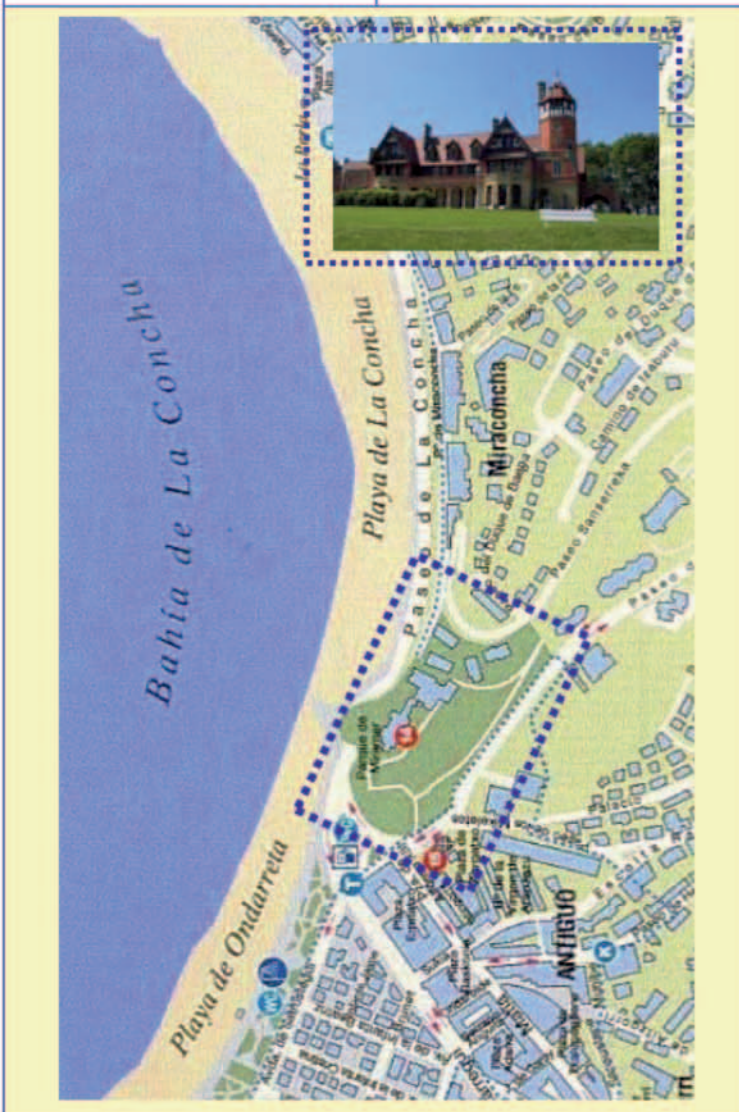
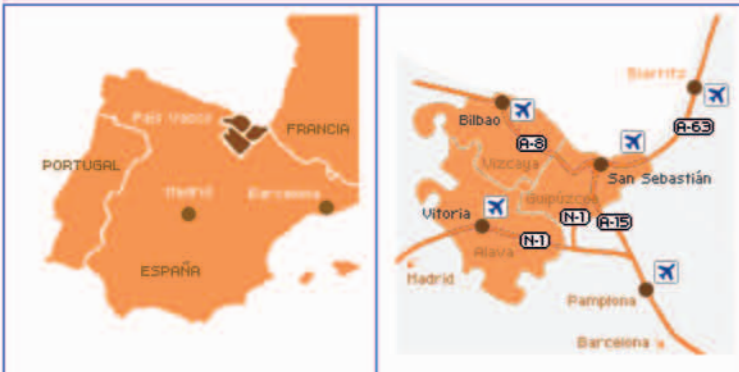


<p>CONFERENCE CENTRE LOCATION Miramar Palace Pº Miraconcha, 48 San Sebastian (Spain) www.sc.ehu.es/palaciomiramar</p>	<p>LANGUAGE The Conference language is English. No translation will be provided.</p> <p>PROCEEDINGS The proceedings will be published on a CD-ROM. Selected papers will be also published in the International Journal of Hydrogen Energy and in the HySafe Biennial Report of Hydrogen Safety.</p>
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REGISTRATION
 The full Conference Fee is 550 Euro. The Fee includes: Proceedings, Attendance at all Conference Sessions, 3 Lunches, 2 Conference Dinners and Coffee breaks – Students 400 Euro. Conference Dinners Excluded – Accompanyng Person 120 Euro. Only Conference Dinners

Conference registration is available online www.hysafe.org/conference



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2nd International Conference on Hydrogen Safety

Miramar Palace, San Sebastián (Spain)
 September 11-13, 2007

www.hysafe.org/conference

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HYDROGEN IMPLEMENTING AGREEMENT

10 th SEPTEMBER - From 16.00 until 19.00 Registration		11 th SEPTEMBER	
08.00	Registration /Welcome		
09.00	Opening Session [Room 1] Manuel Montes Ponce de León - Science & Education Ministry and Joseba Jauregizar - Basque Government		
09.30	Plenary Session 1 [Room 1] Hydrogen Safety R&D and RCS Process Chair: N. Beck - Natural Resources Canada 09:30h Lecturer 1: Pat Davis - DoE 10:00h Lecturer 2: Beatrice Coda - European Commission 10:30h Lecturer 3: Fabrizio Ceccherini - Italian National Fire cops 11:00h Round Table		
12.00	Coffee break - Poster Session "The Work in Progress Workshop for Young Researchers in H ₂ Safety"		
	Session 1 [Room 1] CFD for Regulations, Codes and Standards Chairmans: A. Venetsanos - NCSR, A. Kotchourko - FZK	Session 2 [Room 2] Materials & Storage Chairmans: I. Azkarate - INASMET-Tecnalia, H. Barthélémy - Air Liquide, D. Anton - SRNL	
12.20	Topical session 1 CFD for Regulations, Codes and Standards A. Venetsanos - NCSR	Topical session 2 Materials & Storage H. Barthélémy - Air Liquide	
12.50	1.1.281 Results of the HySafe CFD Validation Benchmark SBEPV5 Jordan, T., Garcia, J., Hansen, O., Huser, A., Ledin, S., Middha, P., Molkov, V., Travis, J., Venetsanos, A., Verbecke, F., Xiao, J.	1.4.43 Polymer Composites for Tribological Applications in Hydrogen Environment Theiler, G., Grady, Th.	
13.10	3.1.68 Analysis of Buoyancy-driven Ventilation of Hydrogen from Buildings Barley, C.D., Gawlik, K., Ohi, J., Hewitt, R.	1.4.44 A Temperature Controlled Mechanical Test Facility to Ensure Safe Materials Performance in Hydrogen at 1000 bar Hammond, R.L., Pargeter, R.J.	
13.30	3.1.78 Validation of CFD Calculations against Ignited Impinging Jet Experiments Middha, P., Hansen, O. R., Grune, J., Kotchourko, A.	1.4.91 Compatibility of Materials with Hydrogen Particular Case: Hydrogen Assisted Stress Cracking of Titanium Alloys Azkarate, I., Ezponda, E., Madina, V.	
13.50	1.1.60 Numerical Study of Spontaneous Ignition of Pressurized Hydrogen Release into Air Xu, B. P., EL Hima, L., Wen, J. X., Dembele, S., Tam, V.H.Y.	2.1.109 Testing Safety of Hydrogen Components Wastiaux, S., Willot F., Coffre E., Schaaff J.P.	
14.10	Lunch		
15.10	1.1.65 Analysis of Jet Flames and Unignited Jets from Unintended Releases of Hydrogen Houf, W.G., Evans, G.H., Schefer, R.W.	2.1.41 Analysis of Composite Hydrogen Storage Cylinders under Transient Thermal Loads Hu, J., Sundararaman, S., Chandrashekara, K., Chernicoff, W.	
15.30	1.1.108 Processes of the Formation of Large Unconfined Clouds Following a Massive Spillage of Liquid Hydrogen on the Ground Proust, Ch., Lacôme, J.M., Jamois, D., Perrette, L.	2.1.42 Optimization of a Solar Hydrogen Storage System: Safety Considerations López, G.E., Rengel, G.R., Isorna, I.I.F., Rosa, I.F.	
15.50	1.1.112 CFD Simulations of Hydrogen Release and Dispersion Inside the Storage Room of a Hydrogen Refueling Station Using the ADREA-HF Code Papanikolaou, E.A., Venetsanos, A.G.	2.1.126 Thermal Loading Cases of Hydrogen High Pressure Storage Cylinders Anders, S.	
16.10	1.1.125 Experimental Study of Jet-formed Hydrogen-air Mixtures and Pressure Loads from their Deflagrations in Low Confined Surroundings Friedrich, A., Grune, J., Kotchourko, N., Kotchourko, A. Sempert, K., Stern, G., Kuznetsov, M.	3.1.46 Fundamental Safety Testing and Analysis of Solid State Hydrogen Storage Materials and Systems Anton, D., Mosher, D., Fichtner, M., Kuriyama, N., Chahine, R., Dedrick, D.	
16.30	1.2.56 Experimental and Numerical Investigation of Hydrogen Gas Auto-ignition Golub, V.V., Baklanov, D.I., Bazhenova, T.V., Golovastov, S.V., Ivanov, M.F., Laskin, I.N., Semin, N.V., Volodin, V.V.	1.2.45 Complex Hydrides as Solid Storage Materials: First Safety Tests Lohstroh, W., Fichtner, M., Breitung, W.	
16.50	Coffee break - Poster Session "The Work in Progress Workshop for Young Researchers in H ₂ Safety"		
17.20	1.3.95 Simulation of Detonation after an Accidental Hydrogen Release in Enclosed Environments Bédard-Tremblay, L., Fang, L., Bauwens, L., Finstad, P.H.E., Cheng, Z., Tchouvelev, A. V.	4.1.294 Risk Analysis of the Storage Unit in Hydrogen Refuelling Station Giardina M., Casamirra, M., Corchia, L., Lombardo, C., Messina, G., Castiglia, F.	
17.40	1.3.80 CFD Simulation Study to Investigate the Risk from Hydrogen Vehicles in Tunnels Hansen, Olav R., Middha, P.	3.1.157 Prediction of the Lift-off, Blow-out and Blow-off Stability Limits of Pure Hydrogen and Hydrogen/Hydrocarbon Mixture Jet Flames Y. Wu, I. S. Al-Rahbi, Y. Lu, G. T. Kalghatgi	
18.00	3.1.145 CFD Modeling of Hydrogen Dispersion Experiments for SAE J2578 Test Methods Development Tchouvelev, A.V., DeVaal, J., Cheng, Z., Corfu, R., Rozek, R., Lee, C.	2.1.121 H ₂ High Pressure On-board Storage Considering Safety Issues Vieira, A., Faria, H., de Oliveira, R., Correia, N., Marques, A.T.	
18.20	1.1.120 High Pressure Hydrogen Jets in the Presence of a Surface Bénard, P., Tchouvelev, A., Hourri, A., Chen, Z., Angers, B.	Closure	
18.40	Closure		
20.00h – 21.00h Welcome Cocktail & Concert by "Olés Ta Olés" offered by the City Council of San Sebastian [Venue: San Sebastian Town hall]			

12 th SEPTEMBER		
09.00	Plenary Session 2 [Room 1] Risk Management Approaches to Hydrogen Safety Chair: Th. Jordan - FZK 09:30h Lecturer 4: Shigeki Kikukawa - Hydrogen Technology Group Japan Petroleum Energy Center 10:00h Lecturer 5: Les Shirvill - Shell Global Solutions 10:30h Lecturer 6: Andrei Tchouvelev - Canadian Hydrogen Safety Program 11:00h Round Table	
11.30	Coffee break - Poster Session "The Work in Progress Workshop for Young Researchers in H ₂ Safety"	
	Session 3 [Room 1] Hydrogen Behaviour & Consequences Chairmans: J. Keller - Sandia National Laboratories, - L.C. Shirvill - Shell Global Solutions	
11.50	Topical session 3 Hydrogen Behaviour & Consequences J. Keller - Sandia National Laboratories	
12.10	1.1.51 Hydrogen Related Risks within a Private Garage: Concentration Measurements in a Realistic Full Scale Experimental Facility Gupta, S., Brinster, J., Studer, E., Tkatschenko, I.	
12.30	1.1.54 Dispersion Tests on Concentration and its Fluctuations for 40MPa Pressurized Hydrogen Kouchi, A., Okabayashi, K., Takeno, K., Chitose, K.	
12.50	1.1.58 Experiments with Release and Ignition of Hydrogen Gas in a 3m Long Channel Sommersel, O. K., Bjerketvedt, D., Vaagsaether, K., Fannelop, T.K.	
13.10	1.3.67 Hydrogen Flames in Tubes: Critical Run-up Distances Dorofeev, S.B.	
13.30	Lunch	
14.30	1.1.62 Gas Build-up in a Domestic Property Following Releases of Methane/Hydrogen Mixtures Lovesmith, B.J., Hankinson, G., Spataru, C.I., Stobbart, M.	1.5.131 Novel Wide-area Hydrogen Sensing Technology Hoagland, W., Benson, D. K., and Smith, R. D.
14.50	1.1.63 Large-scale Hydrogen Release in an Isothermal Confined Area Lacome, J.M., Dagba, Y., Perrette, L., Jamois, D., Proust, C.	1.5.251 Quantification of the Uncertainty of the Peak Pressure Value in the Vented Deflagrations of Air-Hydrogen Mixtures Cerchiara, G., Carcassi, M.N.
15.10	1.3.40 Fast Turbulent Deflagration and DDT of Hydrogen-Air Mixtures in Small Obstructed Channel Teodorczyk A., Drobniak P., Dabkowski A.	2.1.73 Hydrogen Safety Aspects related to High Pressure PEM Water Electrolysis Fateev, V.N., Grigoriev, S.A., Millet, P., Korobtsev, S.V.
15.30	1.3.106 Experimental Study of Hydrogen-Air Deflagrations in Flat Layer Friedrich, A., Grune, J., Jordan, T., Kotchourko, A., Kotchourko, N., Kuznetsov, M., Sempert, K., Stern, G.	2.1.75 Predicting the Probability of Failure of Gas Pipelines Including Inspection and Repair Procedures Zhang, L., Adey, R.A.
15.50	Coffee break - Poster Session "The Work in Progress Workshop for Young Researchers in H ₂ Safety"	
16.10	1.3.69 Deflagration Safety Study of Mixtures of Hydrogen and Natural Gas in a Semi-open Space Merilo, E.G., Groethe, M.A.	2.1.81 Hydrogen Refuelling Stations for Public Transport Quality and Safety in the User-interface Haugerød, T., Hansen, A.M.
16.40	1.3.96 Vapour Cloud Explosions from the Ignition of Methane/Hydrogen/Air Mixtures in a Congested Region Royle, M., Shirvill, L.C., Roberts, T.A.	3.1.59 Hydrogen Safety: New Challenges Based on BMW Hydrogen 7 Müller, C., Fürst, S., von Klitzing, W., Hagler, T.
17.00	1.1.158 Initial Assessment of the Impact of Jet Flame Hazard from Hydrogen Cars in Road Tunnels and the Implication on Hydrogen Car Design Wu, Y.	3.1.71 Fire Protection Strategy for Compressed Hydrogen-Powered Vehicles Gambone, L.R. Wong, J.Y.
17.20	1.3.97 Heat Radiation of Burning Hydrogen/Air Mixtures Impurified by Organic Vapour and Particles Weiser, V., Roth, E., Eckl, W., Kessler, A., Langer, G.	1.1.107 Safety of Laboratories for New Hydrogen Techniques Heitsch, M., Baraldi, D., Moretto, P., Wilkening, H.
17.50	Closure	
18:30h Miramar Palace Closure		

13 th SEPTEMBER			
9.00h	Plenary Session 3 [Room 1] Building Public Safety Consensus Chair: W. Chernicoff - US DOT / RITA 09:30h Lecturer 7: Vladimir Molkov - University of Ulster 10:00h Lecturer 8: Christy Cooper - DoE 10:30h Lecturer 9: Pierre Gauthier - Air Liquide Canada 11:00h Round Table		
11.30	Coffee break - Poster Session "The Work in Progress Workshop for Young Researchers in H ₂ Safety"		
	Session 5 [Room 1] Hydrogen Facility Permitting Chairmans: M. Molag - TNO, J. Ohi, - National Renewable Energy Laboratory		
11.50	Topical session 5 Hydrogen Facility Permitting M. Molag - TNO		
12.10	4.1.64 Hydrogen Safety and Permitting Hydrogen Fueling Stations Ohi, J.		
12.30	4.1.129 Risk-Informed Process and Tools for Permitting Hydrogen Fueling Stations LaChance, J., Tchouvelev, A., Ohi, J.		
12.50	4.1.143 Safety-Barrier Diagrams for Documenting Safety of Hydrogen Applications Duijm, N.J., Markert, F.		
13.10	4.1.93 Fire Prevention Technical Rule for Gaseous Hydrogen Transport in Pipelines Grasso, N., Pilo, F., Ciannelli, N., Carcassi, M.N., Mattei, N., Ceccherini, F.		
13.30	Lunch		
	Session 7 [Room 1] Miscellaneous Chairmans: M. Molag - TNO, J. Ohi, - National Renewable Energy Laboratory	Session 8 [Room 2] Miscellaneous Chairmans: F. Postel - West Sacramento Fire Department, M. A. Delichatsios - University of Ulster	
14.30	4.1.288 Simulator Development of Virtual Experience and Accident Scenarios of Hydrogen Stations for Safety Kim, E.J., Kim, Y. G., Moon, I.I., Kim, J.	3.1.82 Model-based Determination of Hydrogen System Emissions of Motor Vehicles Using Climate-Chamber Test Facilities Weilenmann, M., Bach, Ch., Novak, Ph., Fischer, A., Hill, M.	
14.50	1.3.132 Hydrogen Releases Ignited in a Simulated Vehicle Refuelling Environment Shirvill, L.C., Royle, M., Roberts, T.A.	3.2.101 Identification and Monitoring of a PEM Electrolyser Based on Dynamical Modelling Lebbal, M.E. Lecoeuche, S.	
15.10	6.0.00 Safe Operation of Natural Gas Appliances Fueled with Hydrogen/Natural Gas Mixtures (Progress Obtained in the Naturally-Project) De Vries, H., Florisson, O., Tiekstra, G.C.	6.1.00 Numerical Studies of Dispersion and Flammable Volume of Hydrogen in Enclosures Zhang, J. Hereid, J., Hagen, M., Bakirtzis, D., Delichatsios, M.A., Venetsanos, S.G.	
15.30	6.2.00 Hydrogen Subsonic Upward Release and Dispersion Experiments in Closed Cylindrical Vessel Denisenko V.P., Kirillov I.A., Korobtsev S.V., Nikolaev I.I., Kuznetsov A.V., Gevorkian A.G., Feldstein V.A.	6.3.00 Explosion Hazard of Hydrogen-Air Mixtures in the Large Volumes Petukhov, V.A., Naboko, I.M., Fortov, V.E.	
15.50	1.3.52 Computational Modeling of Pressure Effects from Hydrogen Explosions Granovskiy E.A., Lifar V.A., Skob Yu.A., Ugryumov M.L.	1.5.134 On the Use of Spray Systems: An Example of R&D Work in Hydrogen Safety for Nuclear Applications Joseph-Auguste, C., Cheikhrahat, H., Djebaili-Chaumeix, N., Deri, E.	
16.10	Coffee break - Poster Session "The Work in Progress Workshop for Young Researchers in H ₂ Safety"		
16.40	1.1.83 Study of hydrogen diffusion and deflagration in a closed system Ishimoto, Y., Merilo, E., Groethe, M., Chiba, S., Iwabuchi, H., Sakata, K.	2.1.53 A Rural Hydrogen Transportation Test Bed Sheffield, J. W., Koylu, U. O.	
17.00	2.1.98 Potential for Hydrogen Production from Biomass Residues in the Valencian Community Cárdenas, R., Alfonso, D., Peñalvo, E., Perez-Navarro, A., Perpiñá, C., Vargas, C.	3.2.76 Molecular Transport Effects of Hydrocarbon Addition on Turbulent Hydrogen Flame Propagation Muppala, S., Wen, J.X., Aluri, N.K., Dinkelacker, F.	
17.20	Final Session [Room 1] Conclusions/debate & Perspectives Chairmans: M. N. Carcassi - UNIP and S. Dorofeev - FM Global Research	Panel list H. Barthelemy - Air Liquide B. Coda - European Commission R. Day - CCS - ISO TC/197 W. Hoagland - IEA Task 19 T. Jordan - FZK	J. Keller - Sandia National Labs I. Mac intyre - Natural Resources Canada S. Miyashita - ENAA Japan J. Ohi - NREL
21:00h Conference Dinner Venue: R.C. de Tennis Ondarreta Restaurant, Pº Eduardo Chillida 9, 20008 Donostia - San Sebastián			

(*) The Work in Progress Workshop for Young Researchers in Hydrogen Safety is organised by the eAcademy of Hydrogen Safety (www.hysafe.org/eAcademy).