



Personal information

First name(s) / Surname(s) **Zdravko Spiric**
Address(es) Biankinijeva 21, 10000 Zagreb, Croatia
Telephone(s) 385 1 46 40 302 Mobile 385 91 46 40 302
E-mail(s), Web address(s) zdravko_spiric@hotmail.com ; <http://www.linkedin.com/in/zdravkospiric>
Nationality Croatian
Date of birth 24/08/1954
Identification number from Records of Scientific Workers **162660**
Gender Male

Occupational field R&D; Technology and Innovations; environment & health; industrial and medical ecology; energy; transport = sustainable development; education; - science to support R&D, policy and entrepreneurship /business

Work experience

Dates	01/09/2004 →
Occupation or position held	Scientific Director
Main activities and responsibilities	managing science and technology (applied scientific research and programmes) for entrepreneurship; education
Name and address of employer	OIKON – Ltd. Institute for Applied Ecology, Trg senjskih uskoka 1, 10020 Zagreb, Croatia www.oikon.hr
Type of business or sector	Scientific research – consulting
Dates	01/01/1998 - 31/08/2004
Occupation or position held	Chief engineer - Environmental protection manager
Main activities and responsibilities	planning, implementing and control of the environmental protection activities
Name and address of employer	INA-Naftaplin, Subiceva 29, 10000 Zagreb, Croatia www.ina.hr
Type of business or sector	organization and environmental protection management in petroleum industry
Dates	01/01/1995 - 31/12/1997
Occupation or position held	Project manager – environmental protection
Main activities and responsibilities	planning and implementing of the environmental protection activities
Name and address of employer	INA-Naftaplin, Subiceva 29, 10000 Zagreb, Croatia www.ina.hr
Type of business or sector	environmental protection activities in petroleum industry
Dates	01/01/1988 - 31/12/1994
Occupation or position held	Project manager in the Investments Division
Main activities and responsibilities	directly involved in the most significant Croatian energetic and ecological project: Project Podravina: planning, implementing, engineering, constructing, start-up, test production
Name and address of employer	INA-Naftaplin, Subiceva 29, 10000 Zagreb, Croatia www.ina.hr
Type of business or sector	Engineering, investment, constructing in petroleum industry
Dates	01/01/1982 - 31/12/1987
Occupation or position held	Senior consulting engineer
Main activities and responsibilities	Cement slurry design, control, production for well cementing and completion
Name and address of employer	INA-Naftaplin, Subiceva 29, 10000 Zagreb, Croatia www.ina.hr
Type of business or sector	Laboratory research, development and control in petroleum industry

Dates	01/11/1980 - 31/12/1981
Occupation or position held	Research and development of technological operations and processes in the oil and gas industry
Main activities and responsibilities	Research activities
Name and address of employer	INA Ltd., Research and Development Department www.ina.hr
Type of business or sector	Research and Development in petroleum industry
Education and training	
Dates	12/12/1992 - 01/12/1998
Title of qualification awarded	PhD of Technical Sciences, scientific field Chemical Engineering
Principal subjects / occupational skills covered	Chemical and Process Engineering, environmental protection, sustainable development; process modification, optimization and control
Name and type of organisation providing education and training	Faculty of chemical engineering and technology of the University of Zagreb http://www.fkit.hr/
Dates	01/10/1984 - 08/04/1987
Title of qualification awarded	Master of Technical Sciences, scientific field Chemical Engineering http://www.fkit.hr/
Principal subjects / occupational skills covered	Chemical and Process Engineering,
Name and type of organisation providing education and training	Faculty of Technology of the University of Zagreb http://www.fkit.hr/
Dates	01/10/1974 - 29/10/1980
Title of qualification awarded	graduated engineer in chemical technology
Principal subjects / occupational skills covered	field of Organic chemistry (from the 2nd year of the study), subfield Oil and Petro chemistry (4 and 5 year of the study)
Name and type of organisation providing education and training	Faculty of Technology of the University of Zagreb, Chemical Technology studies, http://www.fkit.hr/

Personal skills and competences

- strong education, professional and scientific background with a proven excellence, skills and experience in environmental technologies - **Knowledge triangle: education, research and innovation**
- more than 20 years of experience and expertise in energy sector (production, policy, strategy); petroleum industry; oil & natural gas exploration & production, research and process development, specializing in environmental technology (Innovation and business driven research + laboratory and field extensive industrial consulting practice -)
- Proven scientific excellence and experience in carrying out scientific research in nature, health & environment protection: (human & eco biomonitoring, risk - assessment, management, communication); sustainable development;
- Proven communication skills, based on teaching experience, public presentations, active participation in meetings, conferences, workshops, technical and scientific publications
- Demonstrated experience and strong organizational and proven leadership skills in project management related to scientific matters in a multidisciplinary environment, in an international context - needed for team leading in implementation various projects (EIA elaborates, resource management plans, scientific/research projects etc.).
- Good communication, organizational, presentation and scientific/technical skills in demanding projects and studies and excellent ability to create, plan, lead and coordinate various tasks especially R & D and education: curriculum, courses, seminars and workshops.
- **My work is guided by the highest professional and scientific standards and ethics - including accuracy, reliability, affluent experience and research excellence in practice.**

Mother tongue(s)

Croatian

Other language(s)

English

Self-assessment

European level ()*

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user	B2	Independent user

(*) *Common European Framework of Reference (CEF) level*

Driving licence

Category B since 1972.

Additional information

Licensed - certified manager for Petroleum, Chemical Engineering and Technological projects.

On the ground of Article 124 of the Mining Act (National Gazette No. 18/75) carried out the professional work: **Possibility of use of termolite and opal breccia in preparation of oil-well cements** and defending it before the commission of the Republic committee for energetic, industry, mining and handicraft on February 2, 1985, - **the state-vocational exam for manager of the chemical-technological operations in exploration and exploitation of oil and gas.**

Name and type
of organisation
providing
education and
training

TRAINING AND PROMOTIONS

ISO 9000 - THE QUALITY SYSTEM Certificate - 5-day theoretical and practical course: organised by QA SYSTEM in 1995

ISO 14000 - THE SYSTEM OF ENVIRONMENTAL PROTECTION Certificate - 5-day theoretical and practical course: organised by Bureau Veritas in 1998

BS OHSAS 18001:1999 Occupational Health and Safety Management Systems Certificate - organised by LRQA in 1999

International Expert Meeting on Environmental Practices in Offshore Oil and Gas Activities

UNEP, UN DPCSD, EPA, API, Dutch and Brazilian Governments, November 1997, Amsterdam - Noorrdwijk.

Petroleum engineering summer school: Environment protection in the Petroleum Industry, Dubrovnik, Croatia, 1999

Synergy between science, engineering and economy in the management of the petroleum industry, Dubrovnik Croatia, 2003.

Waste Management in the Petroleum Industry, Dubrovnik 2004.

The Integrated Petroleum Environmental Consortium (IPEC):

[International Petroleum & Biofuels Environmental Conference](#)

Special Symposium and workshop, November 1999, Houston, TX, USA

- **Waste Minimization in Oil and Gas Exploration and Production**

Special Symposium and workshop, November 2000, Albuquerque, NM, USA

- **Innovative Technologies for subsurface characterization and remediation**
- **Streamlined Approaches for Sampling and Analysis Programs at NORM - Contaminated Sites**

Special Symposium and workshop, November 2001, Houston, TX, USA

- **Environmental Issues Surrounding the Production and use of Domestic Energy**
- **Fundamentals of Bioremediation of Hydrocarbon-Contaminated Soils**
- **Applying Risk Based Decision Making to Manage Oil-Impacted Soil at E&T Sites**

Special Symposium and workshop, October 2002, Albuquerque, NM, SAD

- **Bioremediation of Hydrocarbon-Contaminated Soils**
- **Waste Minimization in Oil and Gas Exploration and Production**
- **Environmental Issues in the Production of Coal bed Methane**

Special Symposium and workshop, November 2003, Houston, TX, SAD

- **Waste Minimization Workshop**
- **Water and Waste Regulatory Issues & Management Options**
- **Microbial Forensics: Application of Molecular Methods for Understanding Microbial Processes in Systems Operation and Remediation**

Workshop on mercury in Idria region and the Northern Adriatic, Portoroz, Slovenia, May 13-16, 2001. - Institute "Jozef Stefan", Ljubljana and University of Alaska, Anchorage; Ministry of science of the Republic of Slovenia and US National science foundation.

UN/ECE Convention on Long - range Transboundary Air Pollution Mapping Critical Loads & Levels, Sub regional Training Workshop on Dynamic Modelling, Bled, Slovenia, October 2-3, 2001.

USA EPA & 6th ICMGP: Task force meeting "Mercury in the industry", Minamata, Japan, 2001.

European Workshop "Mercury Abatement in Industry" Forschungszentrum Karlsruhe (FZK), Germany, Jan 31-Feb 1, 2002,

European Union's Cards Programme for Croatia: National Waste Management Strategy Framework for Croatia, Workshop, Zagreb 22-23.01.2003.

IAEA and IJ Stefan: 3rd International Workshop on Biomonitoring of Atmospheric pollution, Bled, 2003.

UN/ECE Convention on Long-range Transboundary Air Pollution – The Task Force Meeting of the Working group on Effects UNECE

ICP Vegetation: Kalamata, Greece 2004; Dubna, Russia 2007; Braunschweig, Germany 2009; Tervuren Belgiu 2010; Brescia Italia 2012

NoMiracle Workshop: **Integrated Assessment of Environmental and Human Health**, September 2008, Frankfurt, Germany

European conference on **human biomonitoring**, November 2008 Paris, France

Statistical Analyses of epidemiological studies workshop, March 2009, Lund University, Sweden

International Energy Agency (IEA), MEC6, April 2009, Ljubljana, Slovenia

<http://www.iea-coal.org.uk/site/ieacoal/publications/mec6?>

Workshop on risk assessment of metals in food, Phime, April 2010, Athens, Greece

International Workshop on Mercury in contaminated sites: Characterization, impacts and remediation, Organized by the Jozef Stefan Institute - Slovenia, National Institute for Minamata Disease – Japan, and National Institute of Biology Piran, Slovenia, October 2010

Membership

The Forum on Science and Innovation for Sustainable Development <http://sustsci.aaas.org>

The CRO National Committee for Celebrating the International year of Planet Earth IYPE 2009-

International Medical Geology Association – <http://www.medicalgeology.org/>

Croatian Air pollution prevention association (CAPP) <http://www.huzz.hr/>

Traffic Safety Association, Zagreb, Croatia - NGO - board member www.sup.hr

Croatian Society for organizational learning (HDOU – SoL Croatia) www.solcroatia.hr

The European Federation of Chemical Engineering (EFCE) <http://www.eced.cz/>

UN/ECE Convention on Long - range Transboundary Air Pollution Mapping - ICP Vegetation

UNEP Chemicals - Global Mercury Assessment Working Group, Croatian representative from 14.02.2002. -

UNEP Global Mercury Partnership

http://hqweb.unep.org/hazardoussubstances/Portals/9/Mercury/Waste%20management/Resource%20Person%20List_version1.pdf

Scientific adviser in technical sciences, field chemical engineering - Academic Council of the **Faculty of Chemical Engineering and Technology**
r- University of Zagreb (2012)
r **Assistant professor**, scientific and technical areas of science, the scientific field of chemical engineering; the Department of Environmental Medicine,
e **The Faculty of Medicine - University of Rijeka** (2009)
x **Lecturer** on the: *Environmental and Health Safety at The Faculty of Medicine - University of Rijeka* (2009 -) www.medri.hr
e *Environmental protection and sustainable development at VERN'* - University of Applied Sciences in Zagreb (2009 -) www.vern.hr
s *Sustainable Development and Health and the Environment at the Faculty of Metallurgy* University of Zagreb (2012 -) www.simet.unizg.hr

Mentor for three doctoral dissertations (2012)

Scientific Investigator in several international and principal Investigators in numerous domestic projects.

Bioindication of air pollution in terrestrial ecosystems, CRO Ministry of science (2007-2012)

http://zprojekti.mzos.hr/public/c-prikaz_det.asp?psid=4%2D03&offset=40&ID=1765

As Croatian scientist in charge, involved in the: **EU FP6** integrated project **PHIME** – Public health impact of long-term, low-level mixed element exposure in susceptible population strata (2006-2011) www.phime.org

UN ECE ICP Vegetation – Heavy Metals in European Mosses, <http://icpvegetation.ceh.ac.uk/>

Eureka E! 3266 EUROENVIRON WEBAIR »Web-based Air Quality Assessment and Management« (2007-2011) <http://www.ess.co.at/WEBAIR/>

EU FP7 -TPT-2008-RTD -1 Supporting Research on Climate friendly Transport (**REACT**) (2009-2011) <http://www.react-transport.eu/>

EU FP7 ENV.2010.4.1.4-1– Coordination and support action: Strengthening and development of Earth Observation activities for the environment in the Balkan area **OBSERVE** (2010-2012) <http://www.observe-fp7.eu/>

NATO Advanced Research Workshop – **2009 NATO workshop on Warfare Ecology**: Synthesis, Priorities and Policy Implications for Peace and Security (ref. no. **983502**) co-director Zdravko Spiric <http://sitecore.uidaho.edu/cnr/warfareecology>

EUREKA E!5460 WEBAIR-2 »Web-based Air Quality Assessment and Management« (2011-2013) <http://www.eurekanetwork.org/project/-/id/5460>

EU CIP - ICT-PSP-2011-5 - Pilot actions – **eEnviPer project** - Grant agreement no: **297358** (2012-2014) <http://www.eenviper.eu/>

Author (sole and co-author) of more than **250 professional/technical and 50 scientific papers** published in the professional magazines and scientific publications, and presented at the local and international congresses/meetings held in Albuquerque, Amsterdam, Athens, Barcelona, Beijing, Boston, Dubrovnik, Halifax, Hamburg, Helsinki, Houston, London, Miami, Minamata, Moscow, Paris, Pittsburgh, Porto Rico, Prague, Rio de Janeiro, Seychelles, Strasbourg, Zagreb, Washington, as well as **eight innovations, few studies, handbooks** for professional training, **and instructions for work** in a secure way.

The Journal of Engineering and Technology Research (JETR) - *Editor Chemical engineering* www.academicjournals.org/JETR/

The Journal of Geology and Mining Research (JGMR) *Editor* - <http://www.academicjournals.org/JGMR/Editors.htm>

Experience in scientific publications peer-review: STOTEN; Environmental Monitoring and Assessment; Fresenius Environmental Bulletin, Geoderma; Progress in Physical Geography

AWARDS AND ACKNOWLEDGEMENTS

The Croatian State Environmental Directorate - annual acknowledgement for achievements in the **environmental protection** in the category of the **industry 1997**.

Scientific council for oil of the Croatian Academy of Sciences and Arts, 1998 - full member of the Oil mining section.

The Croatian energetic society, the Annual award "Hrvoje Pozar" for improvement of the quality of environment in the industry 1999

8th Exhibition of innovations **INOVA 2000**, Zagreb -the **gold medal** of the **Croatian innovators association**

Ministry of environmental protection and regional planning - the **annual award** for achievements in environmental protection in the field of **transport** and communications for the year **2000**.

Ministry of environmental protection and regional planning 2001 - Expert task force **Sign of environmental protection**.

Croatian automobile club, HAK - **2001** - the **Acknowledgement** for successful participation in promoting and implementing of goals and tasks of HAK.

Croatian car association, Zagreb – selection of the „Car of the year “**AUTO 2005-2012**. Technical –scientific comity member–expert in ecological systems

The European Commission - Registered in the **EU Commission evaluator database FP5/FP6/FP7** – number: **EX2002B022188** - active as an expert/evaluator since 2002 - <https://cordis.europa.eu/emmpf7/>

EU – Community Research RTD Framework Programme - **the expert team for Evaluation** of project proposals in the framework of the Programme «Energy, environment and sustainable development», Part B: Energy, Hydrocarbons, Brussels, January 2002. – **evaluator**

EU–Community Research RTD FP6/7 expert team member for Evaluation of project proposals **Marie Curie Mobility and Environment (2005-2012)**.

SEE-ERA.NET Pilot Joint Call, operated by INTAS, 2007. Expert – **evaluator**

EUIP7-SCIENCE-IN-SOCIETY-2007-2: Euro Research Awards: **The Descartes Prize 07**. – **evaluator**

EU EACEA expert - Education, Audiovisual and Culture Executive Agency – **Tempus, Erasmus, Leonardo da Vinci, Eurydice**, KA1 - Policy Cooperation and Innovation & Bilateral Cooperation with Industrialised Countries – since 2010

European Science Foundation Pool of Reviewers - 2009 <http://www.esf.org/>

The European Food Safety Authority (EFSA) - Expert Database 2009 - ID **70462** www.efsa.europa.eu

FNRS - Brussels, Belgium – Fonds de la Recherche Scientifique, 2010 - Reviewer ID 405558; <http://applications.frs-fnrs.be> – **evaluator**

The Eurostars programme powered by EUREKA and European Community – EXPERT (2011-) – **evaluator**

UNESCO World Heritage Convention -new World Heritage nominations -The International Union for Conservation of Nature (IUCN) – **evaluator**

Research Based University Chairs of Excellence **Universities of Paris, France** <http://www.rbuce-up.eu/content/team> – Reviewer – **evaluator** (2011-)

GREECE - Evaluation Platform of General Secretariat of Research and Technology - https://apps.gov.gr/minedu/industrial/eval_cooperation/ – **evaluator**

EURAMET - the Pool of Referees <http://www.emrponline.eu/> (2011 -

Guest Lecturer :

PERF Spring Meeting - Theme – Mercury, 12-14 March 2003, San Antonio; USA

PERF Summer Meeting – Ambient Air protection in the Petroleum industry, 2.-6. June 2003. Paris, France

Louisiana State University, Baton Rouge LA 70803 USA Mercury control during natural gas processing, 2003

University of Split, Croatia, Faculty of Science (PMFST): Mercury removal in INA-Naftaplina, 2008.

China University of Petroleum (CUP) Beijing, CHINA: Innovative approach–the key for the Petroleum Industry challenges, 2009.

Chinese Academy of Sciences Key Laboratory of Nuclear Analytical Techniques & CAS Key Laboratory for biological Effect of Nanomaterials and Nanosafety, Institute of High Energy Physics, Chinese Academy of Sciences, Beijing, CHINA: The biomonitoring in the petroleum industry - our experience, 2009.

Salve Regina University Pell Centre for International Relations and Public Policy, Newport RI 02840 USA: NATO ARW **Achieving Environmental Security: Ecosystem Services and Human Welfare** Spiric Z.: Delivering Ecosystem Service Benefits: Science and Innovation for Sustainable Develop 2009

NATO ARW "Drinking water protection by integrated management of contaminated land", Spiric Z.: Current Issues and Research Needs for Contaminated Land and Groundwater/Drinking Water in Croatia, Belgrade 21-23 March 2011.