

## ECOBALTICA short history from 1996 to 2019

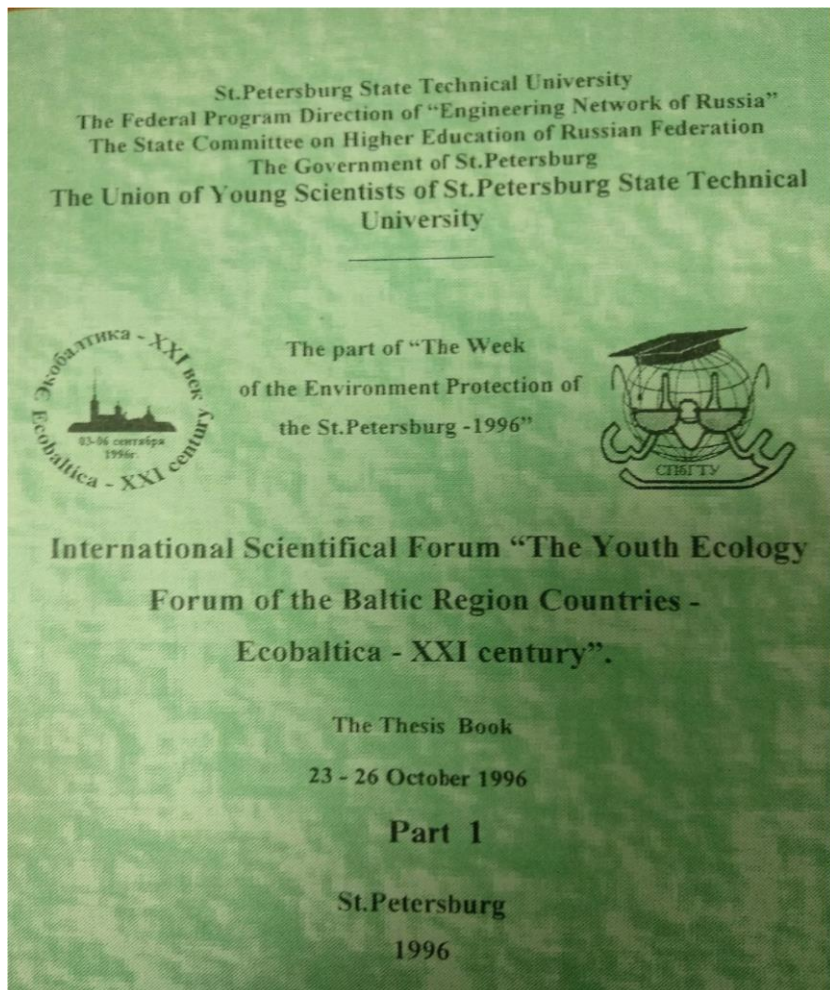
Forum ECOBALTICA1996.

ECOBALTICA Forum for the first time.

Organized by postgraduate students. To prevent brain drain and save science and higher education in Russia. Ecology seemed to young graduate students the widest scientific direction, the most multidisciplinary from the point of view of science. So did the Forum ECOBALTICA.

Very helped Mayor of St. Petersburg Anatoly Sobchak, who supported the idea of the forum, as well as the employee of the Department of environmental protection of St. Petersburg Oleg Petrovich Stetsenko, and head of the Department Anatoly Baev. The main burden fell on the author of the idea of ECOBALTICA FORUM on postgraduate student Vasily Rud, and other postgraduate students Mikhail Romanov, Leonid Liokumovich and Kirill Zotov. The University was greatly supported by the rector of the University -Academician of Russian Academy of Sciences Yuri Vasiliev.

In the photo, the only surviving preserved satisfied organizers, together with the staff of the Committee on youth Affairs of St-Petersburg city - Eugene Shashikhin and Eugene Polyakov, as well as another young scientist of the Polytechnic University Dmitry Sharikov, translator, student Marina Yarmolenko, as well as Swedish participants of the Forum University students Lund Fredrik Ottosson and Otto Abrahamsson. With this all began, and lasts for more than 20 years.



St.Petersburg State Technical University  
The Federal Program Direction of "Engineering Network of Russia"  
The State Committee on Higher Education of Russian Federation  
The Government of St.Petersburg  
The Union of Young Scientists of St.Petersburg State Technical  
University



The part of "The Week  
of the Environment Protection of  
the St.Petersburg -1996"



International Scientifical Forum "The Youth Ecology  
Forum of the Baltic Region Countries -  
Ecobaltica - XXI century".

The Thesis Book  
23 - 26 October 1996

**Part 2**

St.Petersburg  
1996

St.Petersburg State Technical University  
The Federal Program Direction of "Engineering Network of Russia"  
The State Committee on Higher Education of Russian Federation  
The Government of St.Petersburg  
The Union of Young Scientists of St.Petersburg State Technical  
University



The part of "The Week  
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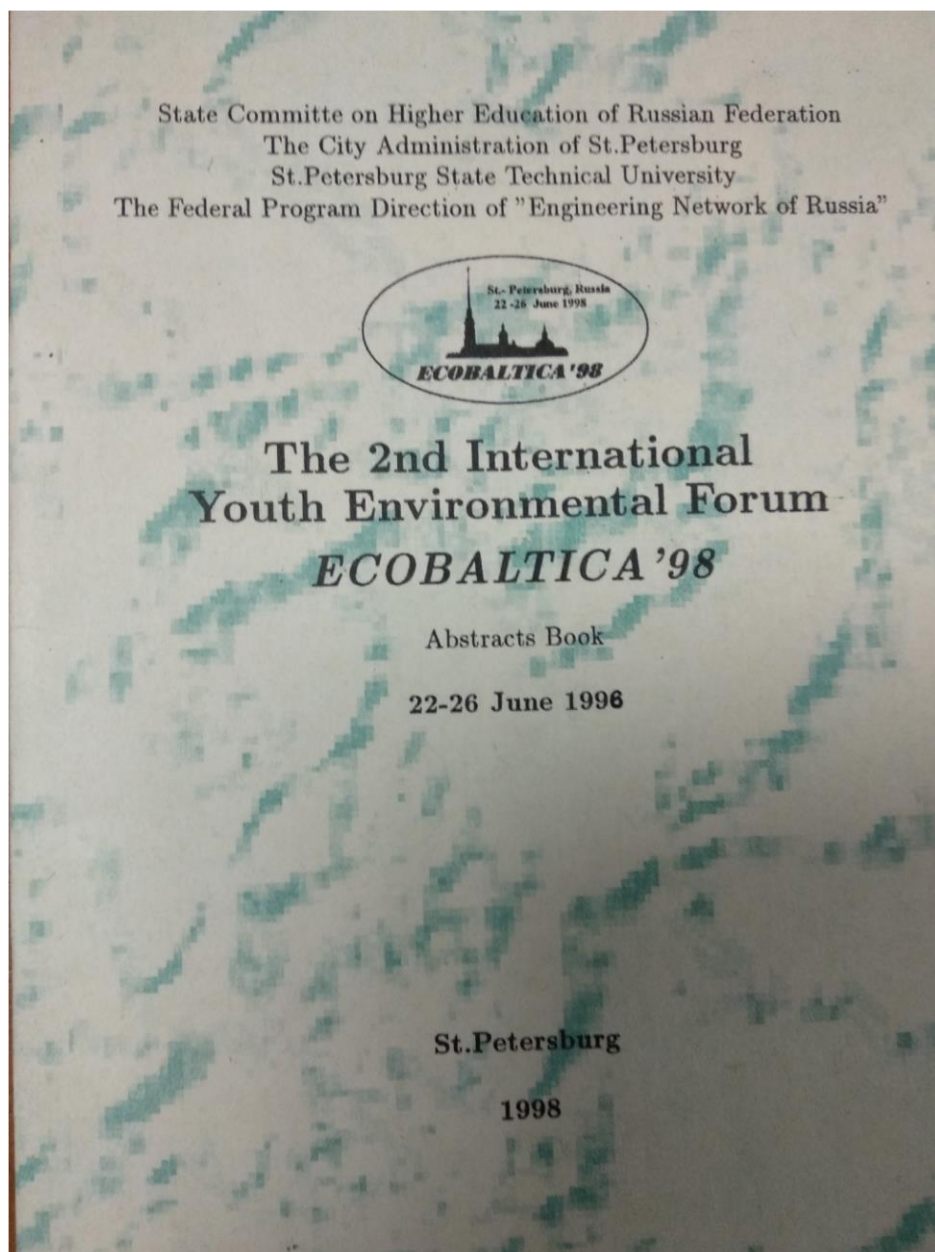


International Scientifical Forum "The Youth Ecology  
Forum of the Baltic Region Countries -  
Ecobaltica - XXI century".

The Program Book .  
23 - 26 October 1996

St.Petersburg  
1996

1998



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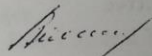
Kalmar University College, Sweden.

Lund University, Sweden.

St.Petersburg State Technical University, Russia

I welcome all participants of **Second Youth Environmental Conference "ECOBALTICA' 98"** in St.Petersburg State Technical University. Dear friends, our University is going to celebrate its centenary in 1999. The scientists of the University have greatly contributed to fundamental and applied sciences and the environmental science particularly. It is my firm belief that Second Youth Environmental Conference ECOBALTICA' 98 will serve for further development of researches both in our University and in the whole Baltic region.

Sincerely yours,



Prof. Dr. Yuri S.Vasiliev, President

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*ECOBALTICA '98, St.Petersburg, Russia, 22-26 June 1998.*



2000

The 3rd International Youth Environmental  
Forum of Baltic Countries  
**ECOBALTICA'2000**



St.-Petersburg, 26 - 30 June 2000

**Sponsoring Institutions/Companies**

- Vodokanal Sami-Petersburg
- FORA Communications
- North-West Tea Group
- Kalmar Municipality
- Kalmar University
- St.Petersburg State Technical University
- SIDA
- The Swedish Institute
- Russian State Program "INTEGRACIA"
- The Russia Foundation for Basic Research





2002

**THE IV<sup>th</sup> INTERNATIONAL YOUTH ENVIRONMENTAL FORUM**  
**"ECOBALTICA'2002"**

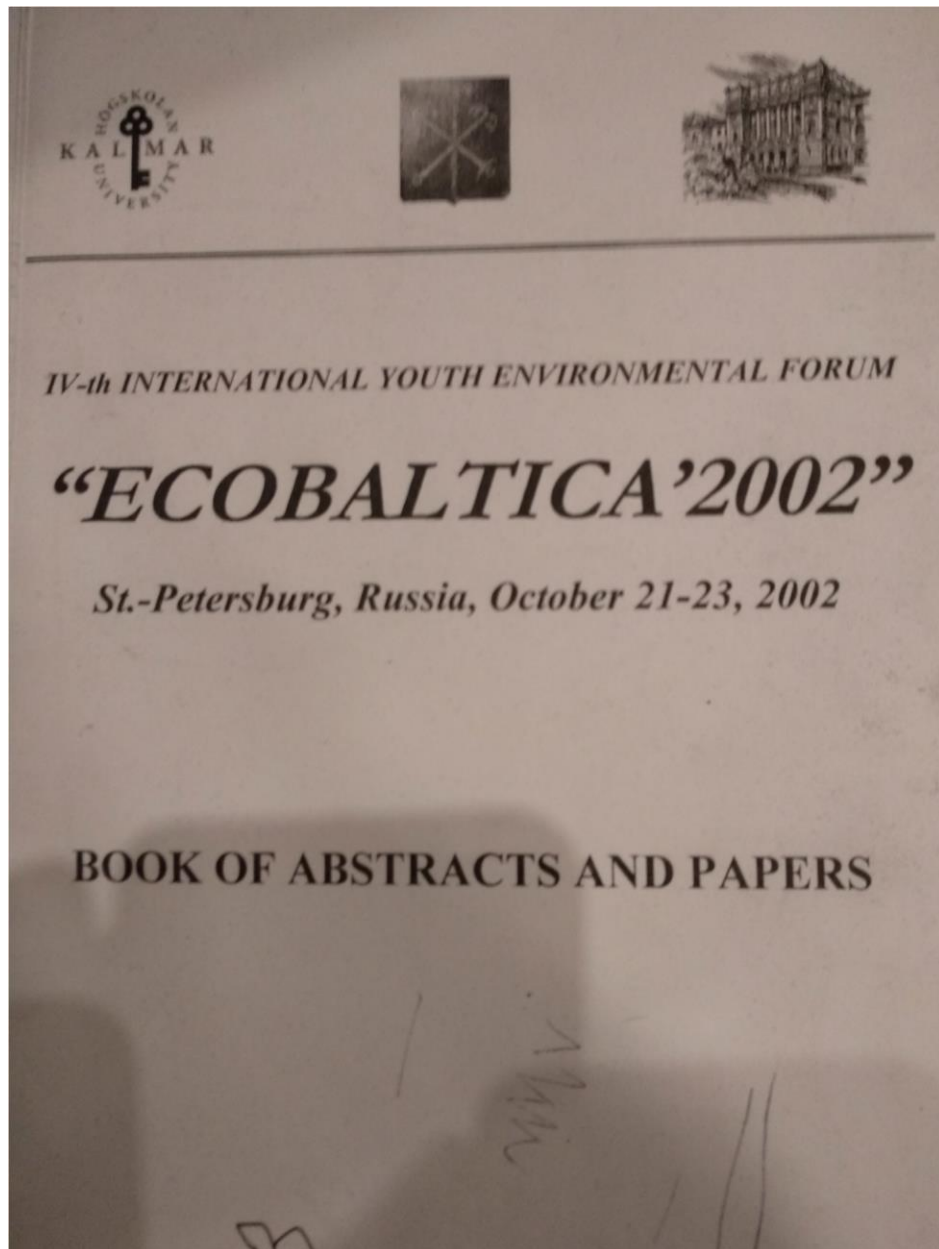
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- Kalmar Municipality, Sweden
- Kalmar University, Sweden
- The Swedish Institute, Sweden
- The Sustainable Sweden Southeast AB, Sweden

*Solovya Anastasia (Russia) 11.10.02*





Рад приветствовать уважаемых участников IV-го Международного молодежного экологического Форума стран балтийского региона «ЭКОБАЛТИКА-2002»! Дорогие друзья, наш университет в 2002 году празднует 100-летний юбилей с начала проведения учебных занятий. Ученые нашего университета внесли значительный вклад в развитие фундаментальных и прикладных наук, особенно в развитие изучения и охраны окружающей среды. Выражаю свое глубокое убеждение, что IV-ый Международный молодежный экологический форум стран балтийского региона «ЭКОБАЛТИКА-2002» послужит дальнейшему развитию научных исследований как в Санкт-Петербургском государственном политехническом университете, так и во всем балтийском регионе.

Искренне Ваш,

Юрий Васильев

Президент СПбГПУ,

Академик РАН, Профессор, доктор технических наук

IV-th International Youth Environmental Forum "ECOBALTICA'2002".  
Book of Abstracts and Papers.

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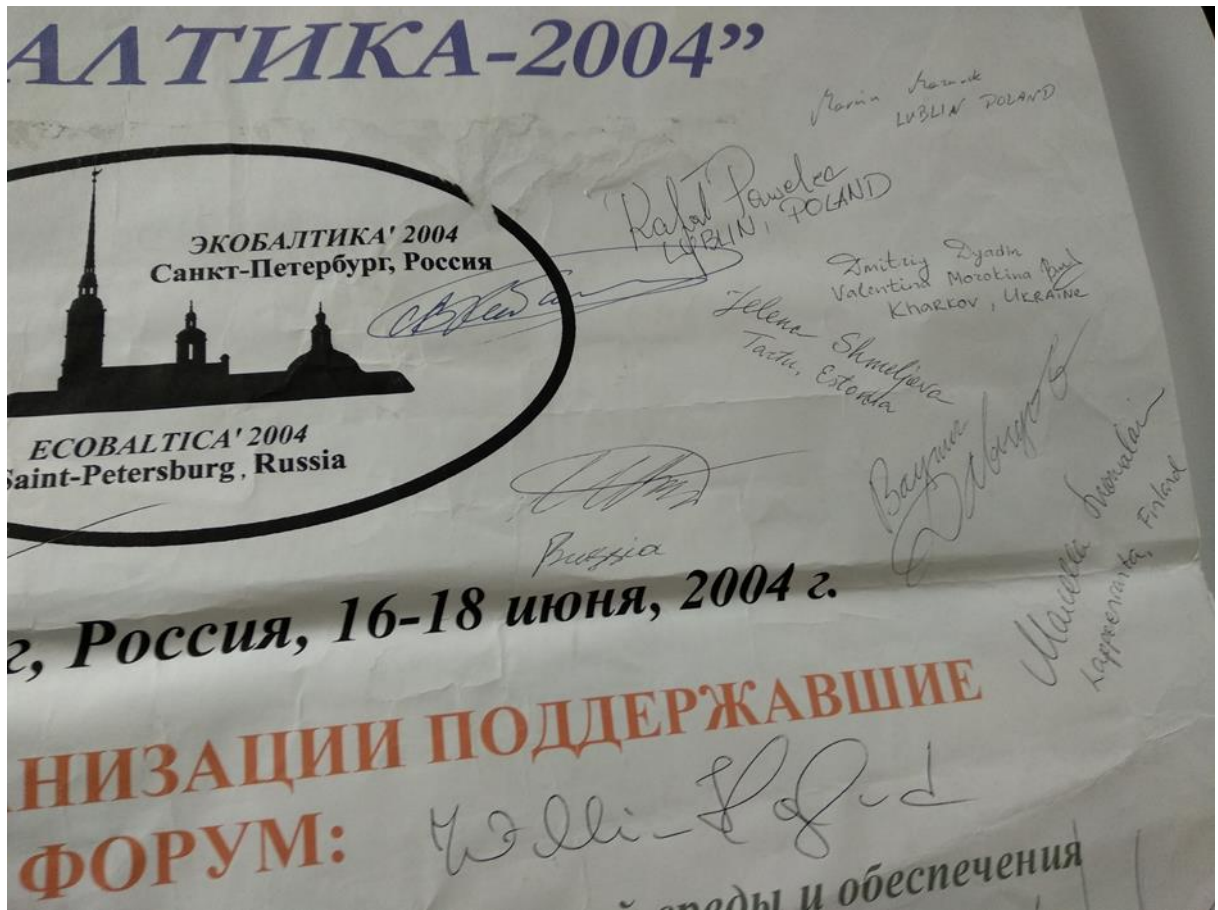
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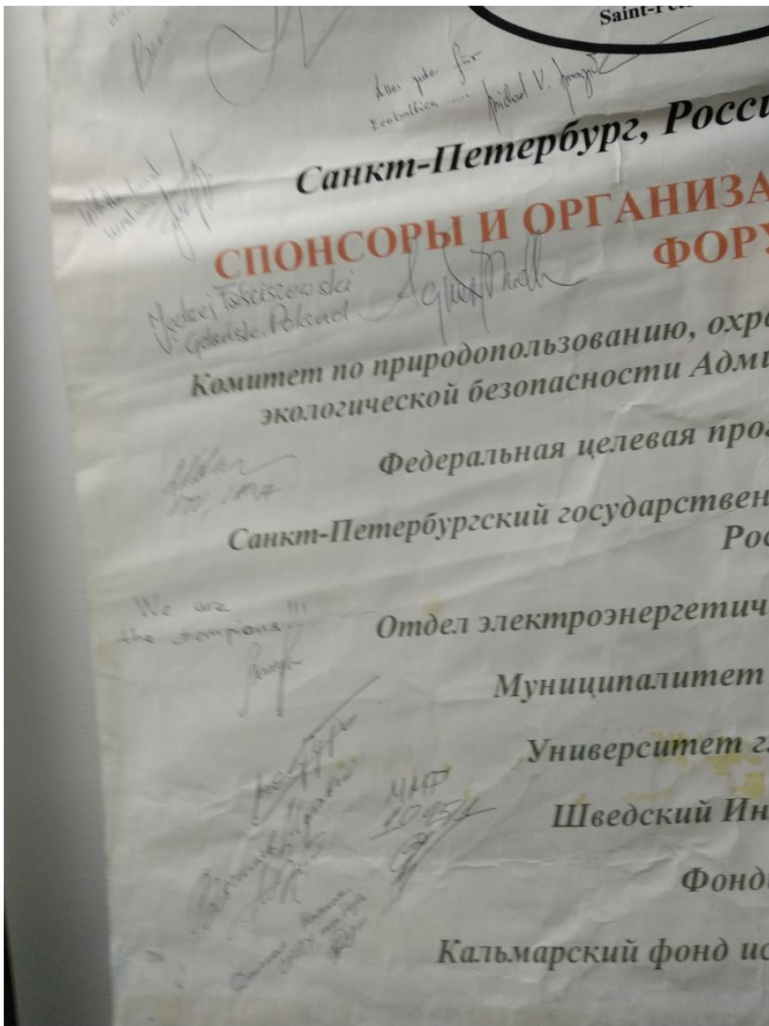
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2006



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THE 10<sup>th</sup> INTERNATIONAL YOUTH ENVIRONMENTAL FORUM

**“ECOBALTICA’ 2006”**

St. Petersburg, Russia, June 27-29, 2006

SPONSORS AND SUPPORTING INSTITUTIONS:

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St. Petersburg Polytechnic University, Russia

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Leningrad District regional branch of All-Russian “Russian union of young scientists”




The Regional Council of Kalmar County, Sweden

Kalmar University, Sweden

The Swedish Institute, Sweden

The Swedish Royal Academy of Engineering Sciences, Sweden

AB Gustaf Khr, Sweden



**РОССИЙСКИЙ СОЮЗ МОЛОДЫХ УЧЕНЫХ**  
ОБЩЕРОССИЙСКАЯ ОБЩЕСТВЕННАЯ ОРГАНИЗАЦИЯ  
Ленинградское областное отделение

<http://www.ecolab.spbstu.ru>



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*The VI INTERNATIONAL YOUTH ENVIRONMENTAL  
FORUM*

# ***“ECOBALTICA’2006”***

*St.-Petersburg, Russia, June 27 – 29, 2006*

**BOOK OF PROCEEDINGS**

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**St.-Petersburg  
2006**



In doing this, a well functioning basic environmental technology is the first prerequisite of success. Also, the technology must be profitable. Otherwise it will not come into practical usage. Furthermore, the technology used must really improve the environment. Finally, the solution applied must be ethically defensible.

However, one should not despair concerning the environmental situation on the global scale. We are supposed to leaving the world a better place than we received it. Children born today – in both the industrialized world and developing countries - will live longer and be healthier, they will get more food, a better education, a higher standard of living, more leisure time and far more possibilities – hopefully without the global environment being destroyed.

We must consider water, energy and waste management "for life". With the concept "Environment for life" in the Baltic Sea Region, the inhabitants of the Baltic Sea Region states will promote a sustainable development and thereby better chances to a lasting peace and, as a result, a generally improved quality of life!

## PLASMA BASED TOTAL TREATMENT OF WASTE AND LOW GRADE ENERGY SOURCES

Michael Tendler (Royal Institute of Technology, Sweden)

By application of a fully plasma based system to a wide range of possible feedstocks which are CO<sub>2</sub> neutral, a clean syngas of high calorific value is produced from the organic substances simultaneously with a non-leachable vitrified lava from the inorganic substances. The results will provide the advanced technology for environmentally friendly treatment of hazardous wastes, and for the green electricity, hydrogen and possibly carbon nanotubes from waste streams, biomass and low grade fuels. The driving force behind the presented task is to give priority to the environmental quality at affordable cost. Thus, the investigation of ways to increase the efficiency of the process is very important.

The major steps in the endeavour are: realization of an efficient system for clean and efficient plasma based waste treatment using a plasma torch and testing the combined system for various feedstocks, including oil shale and wood stocks. The economy of the system is a crucial parameter to determine the future of this technology. The optimistic scenario holds the promise to provide 10 – 15 % of the energy needs for the EU.

During the past centuries, industrial processes and energy conversion plants have shown no or little care for environmental quality. The result is a huge accumulation of pollution and hazardous by-products, left as a heritage for the present and future generations.

Recuperation of by-products or thermal energy is not only motivated by cost saving, but also by resource saving considerations. Environmental awareness is more than staying within the lines of the existing regulations.

A plasma based remediation system is the only technology that prevents undesired pollution in the byproducts and end product (such as syngas or other gases). The problem to be solved is two fold: recuperate clean energy from waste and renewables without pollution at affordable cost. Such technique fulfills the objectives of sustainable development.

Today one of the main reasons that restrict use of plasma based methods is the cost of electrical energy. Thus investigation of ways of increase of efficiency of the process is very important.

## STORM WATER STUDY AT SHELL REFINERY IN GOTHENBURG

Jakob Winblad von Walter, William Hogland (University of Kalmar, Sweden)

This report investigates the management of storm water at Shell refinery in Gothenburg. Precipitation data was gathered from the nearest weather station, to gain a clear picture of the volume of storm water that collected on the refinery site. This data, together with other measured areas, has been put into tables with calculations of the different water masses each division of the refinery receives. The calculations show that the refinery's internal water purification plant receives an unnecessarily large volume of water that is not contaminated process water.

Samples have been taken from eight different drains around the site in order to investigate the water quality. One of these samples was taken from clean drinking water to act as a reference. The parameters analysed were the heavy metals; arsenic, lead, cadmium, cobalt, copper, chromium, mercury, nickel, vanadium and zinc. The total oil contents were also measured, and divided into three fractions, together with the organic substances phenol, sulphide and ammonia. The result from the oil fractions showed, not surprisingly, high levels of content in all samples; which means that the water needs to be separated from oil before it is released to the recipient. High levels of the following heavy metals were found in some of the samples: arsenic, copper, mercury, nickel and vanadium. One of the samples taken near a workshop area, where repairs to the refinery's parts are performed, proved to have high levels of mercury and four of the other samples had moderately high levels. This result indicates that there could be a leakage source in the area the sample was taken from, despite the natural content of mercury in crude oil.

The treatment solutions that have been suggested, have mostly been related to how the refinery can control their storm water volumes; how they can separate the relatively clean storm water from the potentially contaminated water. Initially the entire storm water system should be documented with mapping and descriptions of each of the collection drains. This documentation should then act as a basis for an investigation of where new drains areas where active industrial processes occur and that have open land profiles, should be made impervious to make sure that contaminated storm water does not percolate into the ground water. As many of the process areas were placed under the surrounding roads, an enclosure of these has





VI International Youth Environmental Forum "ECOBALTICA'2006" Book  
of PROCEEDINGS

VI Международный молодежный экологический форум стран  
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2008



THE SEVENTH INTERNATIONAL YOUTH SCIENCE ENVIRONMENTAL  
FORUM OF BALTIC REGION COUNTRIES

# "ECOBALTICA-2008"

St. Petersburg, Russia, June 26-28, 2008

**SPONSORS AND SUPPORTING INSTITUTIONS:**

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1996 -  - 2008

[www.spb.rosmu.ru](http://www.spb.rosmu.ru)

The document is covered with numerous handwritten signatures and notes in various languages, including Russian and Swedish.



THE INTERNATIONAL YOUTH SCIENCE  
ENVIRONMENTAL FORUM

# “ECOBALTICA’2008”

St.-Petersburg, Russia,  
June 26 – 28, 2008



[www.spb.rosmu.ru](http://www.spb.rosmu.ru)



St.-Petersburg  
2008

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The INTERNATIONAL YOUTH SCIENCE ENVIRONMENTAL  
FORUM OF BALTIC REGION COUNTRIES "ECOBALTICA'2008"  
Book of PROCEEDINGS

МЕЖДУНАРОДНЫЙ МОЛОДЕЖНЫЙ НАУЧНЫЙ  
ЭКОЛОГИЧЕСКИЙ ФОРУМ СТРАН БАЛТИЙСКОГО РЕГИОНА  
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2011



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29 Sept. - 1 Oct. 2011



THE VIII INTERNATIONAL YOUTH SCIENCE ENVIRONMENTAL  
FORUM OF BALTIC REGION COUNTRIES "ECOBALTICA'2011"

Book of PROCEEDINGS

VIII МЕЖДУНАРОДНЫЙ МОЛОДЕЖНЫЙ ЭКОЛОГИЧЕСКИЙ  
ФОРУМ СТРАН БАЛТИЙСКОГО РЕГИОНА  
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2012




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ЭКОЛОГИЧЕСКИЙ ФОРУМ СТРАН БАЛТИЙСКОГО РЕГИОНА

# ЕСОВАЛТИСА 2012

1996 - 2012



St-Peterburg, Russia,  
29th - 30th November, 2012  
Место проведения форума:  
Дом ученых в Лесном



Linnéuniversitetet



Linnæus University

THE IX INTERNATIONAL YOUTH SCIENCE  
ENVIRONMENTAL FORUM

# “ECOBALTICA’ 2012”

St.-Petersburg, Russia,  
November 29 - 30, 2012



**BOOK OF ABSTRACTS**

St.-Petersburg  
2012



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Saint-Petersburg, Russia  
November 29 - 30, 2012



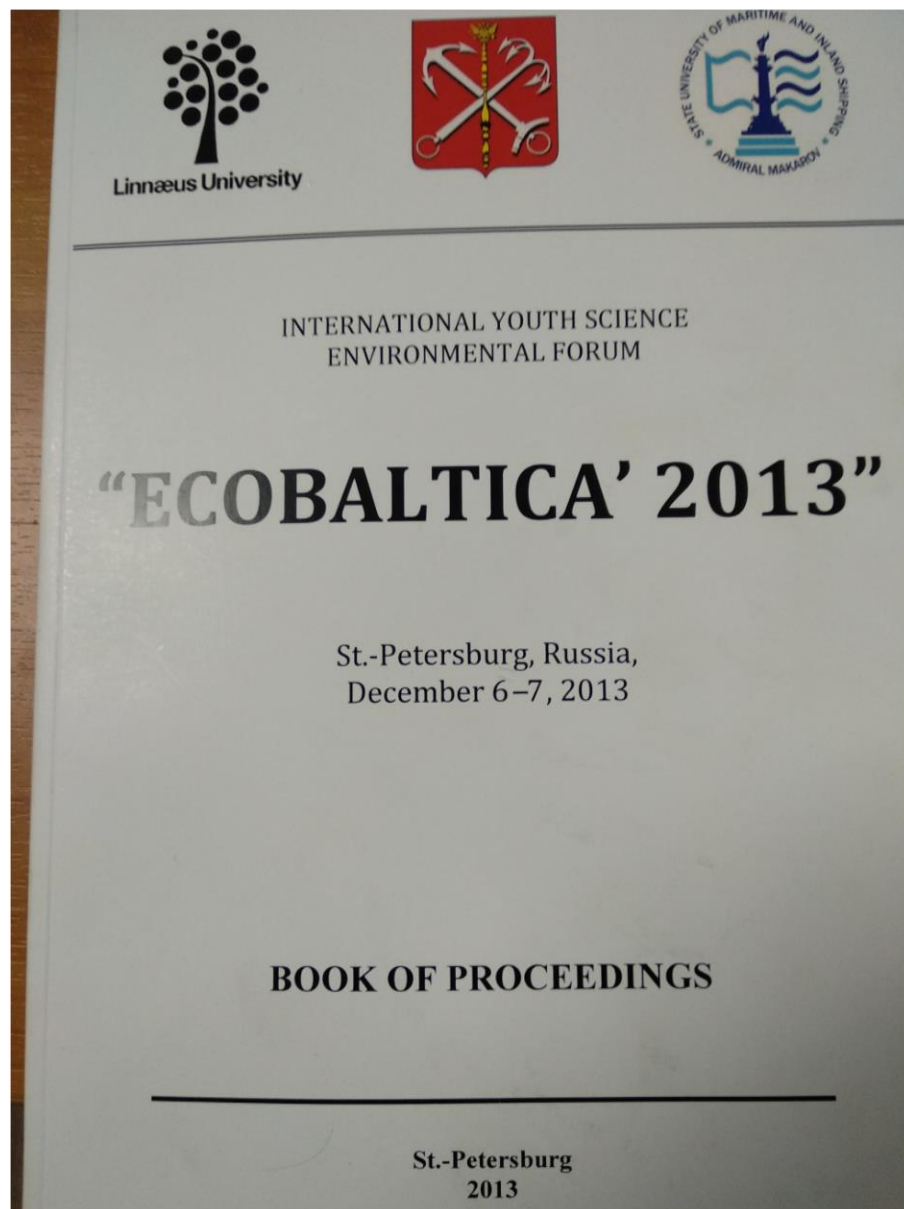
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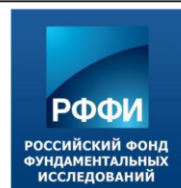
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*International Youth Science Environmental Forum “ECOBALTICA’2015”*

1



INTERNATIONAL YOUTH SCIENCE  
ENVIRONMENTAL FORUM



# “ECOBALTICA’ 2015”

St. Petersburg, Russia,  
01 – 19 December, 2015

*Editors: I. Esipov, A. Glinushkin, W. Hogland and V. Yu. Rud’*

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## ПРЕДИСЛОВИЕ

В это году в России отмечается год Экологии и особо охраняемых территорий. Международный молодежный научный экологический форум стран балтийского Реиона в этом году имеет уже 20 летнюю историю проведения. В этом году запланировано проведение 4 конференций в рамках Форума ЭКОАБЛТИКА. Форум проводится в виде целого ряда различных конференций в разных городах Российской Федерации и участием широкого спектра участников из разных стран. Радостно отметить, что организаторами Форума достигнута договоренность о сотрудничестве с Министерством окружающей среды Палестины и в этой связи в сборниках публикуются некоторое количество статей, подготовленных и доложенных специалистами из Палестины.

Форум проводится под научным руководством Российской Академии наук, под началом Академиков Российской Академии Наук – Ивана Васильевича Савченко и Михаила Сергеевича Соколова.

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## PREFACE

This year Russia celebrates the year of the Environment and protected areas. International youth science environmental forum of Baltic Reina this year has been 20-year history of the event. This year is planned to conduct 4 conferences in the framework of the Forum ECOBALTICA. The forum is held in the form of a number of, ready for the next conferences in different cities of the Russian Federation and participation of a wide spectrum of participants from different countries .

Glad to note that the Forum reached an agreement on cooperation with the Environment Quality Authority of Palestine and in this regard, in collections published a number of papers prepared and presented by experts from Palestine.

The forum is held under the scientific leadership of the Russian Academy of Sciences, under the direction of Academicians of the Russian Academy of Sciences Ivan Savchenko and Mikhail Sokolov.

### **Editors**

*Alexey Pavlovich Glinushkin*

*William Hogland*

*Vasiliy Rud'*

2018 год Форум впервые вышел за пределы России.



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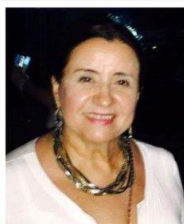
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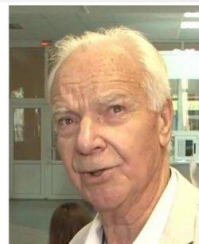
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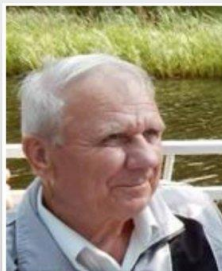
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