International Pyrotechnics Society

Newsletter

Election Special Issue 2016

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Editorial

Dear Madams and Sirs,
Oh how fast time flies by! This term 2014-2016 is coming close to the end and new IPS board member election is coming up. So, this issue of the newsletter is dedicated to introduce to you the candidates for the IPS board and as to how to vote. Please read this newsletter carefully and please send us your vote by 21st March 2016 (date of receipt).
Please remember : YOUR VOTE COUNTS ! ☺
Best regards,

Shingo Date

42nd International Pyrotechnics Seminar
The Major International Forum for Pyrotechnics
10-15 July 2016, Grand Junction, CO, USA
http://www.ipsusa.org/ips40.htm

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A Word from the President

Dear Members of the Society,

With this newsletter we would like to introduce to you the candidates for the up-coming board election.

Please exercise your constitutional rights and take part in the election.

We will inform you shorty before the upcoming International Pyrotechnics Seminar in Grand Junction about the outcome of this election.

Best regards from Kaiserslautern/Germany.

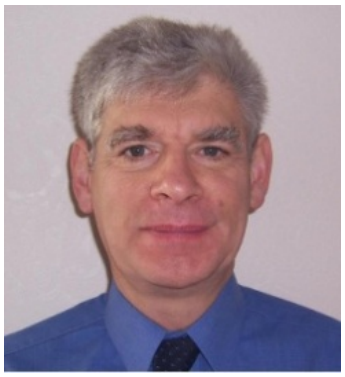
Ernst-Christian Koch

Candidates for the 2016-2018 term

The nomination committee has informed the IPS BOD about the following nominations:

Office	Candidate
President	Dr. Trevor T. Griffiths
Vice-President	Mr. Per Alenfelt
Vice-President	Dr. Joost van Lingen
Vice-President	Dr. Jesse J. Sabatini
Treasurer	Dr. Gregory D. Knowlton
Secretary	Dr. Shingo Date
Archivist	Dr. Anthony P. Shaw

Dr. Trevor Griffiths



I work for the Defence Company 'QinetiQ' in the Weapons Division; I am based at Fort Halstead which is located in the UK near Sevenoaks. I provide strategic leadership and support to the 30 staff in the Energetics Facilities Team in the delivery of research and project support tasks on energetic materials to UK MoD and commercial customers.

On graduating from London University with a PhD in Chemistry I joined the Pyrotechnics Research Group of the Royal Armament Research and Development Establishment (RARDE). During my career I was transferred first to the Defence Research Agency (DRA), then to the Defence Evaluation & Research Agency (DERA) and finally to QinetiQ.

I have worked in the field of energetic materials for over thirty years and during that time I have developed a deep technical knowledge in all aspects of pyrotechnics. I have significant experience in the application of thermal analysis and calorimetry to studies of energetic materials.

In 1993 I spent 15 months as an exchange scientist in Australia at the Aeronautical and Maritime Research Laboratory. On my return to the UK, I was appointed to lead the Team delivering research on Pyrotechnics, Explosive Trains and Initiator.

My wide knowledge of energetic materials has allowed me to provide technical advice to UK MoD, US Customers and Industry, addressing many diverse problems associated with in-service munitions and assessing a wide range of commercial off-the-shelf equipment and munitions to establish whether they are suitable for service use by addressing both their performance and safety. This work has had a significant impact on the reliability of both present and future service munitions.

In 1999 I was appointed as a Fellow of the Royal Society of Chemistry and became a Chartered Chemist. In 2009 I was appointed as a QinetiQ Fellow.

I have published more than 260 reports and papers, made over 120 presentations and have been an invited speaker or co-chair at a number of international conferences. I have organised and co-chaired two International Conferences on the Heat Flow Calorimetry of Energetic Materials. I am very familiar with how the International Pyrotechnics Society operates as I have previously served as the Vice-President (2010-2014); additionally I administer the Frank Carver Bursary which has the aim of advancing the scientific understanding of energetic materials.

Mr. Per Alenfelt

The fascination for pyrotechnics has been with me since a very young age. In my youth I made almost all of the classic firework items but I soon found out that it was perfecting the formulas that was my main interest in the craft. I realised I had to study chemistry to be able to work in the field the way I liked. At the same time it also became clear to me that pyrotechnics was "a hobby that won't get you laid" so I chose to study both inorganic chemistry and biology to avoid having a too narrow education and if possible not being the too obvious nerd. ;-)

I received a master's degree in inorganic chemistry at the University of Uppsala in 1995. I immediately got a job at Nitro Nobel AB in Gyttorp, now Orica Mining Services. After only one year I was head hunted to the oldest fireworks company in Sweden, Hansson PyroTech AB in Gothenburg, where I stayed until Nammo LIAB AB bought the manufacturing part and moved it to Lindesberg where I have been working since 2002.

I have always been employed as a pyrotechnic chemist or engineer, working with both R&D and practical problem solving for the pyrotechnic production. My experience includes shock tube ignition systems, delay trains, consumer fireworks, military illumination and tracers (visual and near IR), composite rocket propellants, visual smoke and everything else needed for marine pyrotechnic signalling.

Although being an academic person I have always worked in more practically oriented situations where you just have to find a working solution with the materials at hand. This has provided me with a good feeling for what works and what the problem might be in a pyrotechnic system. But, after more than 20 years of professional experience, I still learn every day and being nominated for one of the offices of the Board of Directors of the International Pyrotechnics Society is not just an honour but also an opportunity for me to learn more and finally start to contribute somewhat in the international world of pyrotechnics.

Publications:

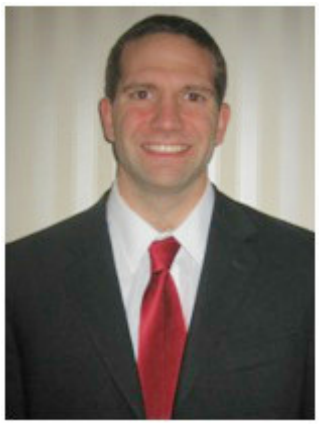
- "Corrosion protection of magnesium without the use of chromates", Pyrotechnica No.16, August 1995
- "Chemical analysis of consumer fireworks", Journal of Pyrotechnics No.11, June 2000

Dr. Joost van Lingen

My name is Joost van Lingen, after my PhD in physical chemistry in 2006, I got a job at TNO in the Netherlands in the field of pyrotechnics. Over the years my role at TNO develop from a scientist to a program manager and team leader role. Currently I am responsible for keeping track of the developments in the market and having a vision/strategy on how TNO should position themselves and which topics should be investigated. For example 3 years ago we started as one of the first in the world with the additive manufacturing of energetic materials at TNO. I am however still at heart a scientist always interested in exploring new possibilities or developing new products. In that role I am currently working as the principle investigator with the TNO team and Edgewood Chemical and Biological Centre on the development of a less toxic smoke for SERDP.

Two years ago I honored with the election to be one of the IPS's vice presidents. With this position I could do something back for the IPS community that welcomed so warmly me 8,5 years ago, when I attended my first IPS. That is one of the reasons why I organized the IPS conference in Rotterdam, The Netherlands in 2009. I really like the friendly and open discussions that were possible between people during the conferences. The community is always willing to help each other. I would like to help preserving this atmosphere for the future and new members joining the community. Therefore I accepted the position in the IPS board two years ago and I would like to run for another two years.

Dr. Jesse J. Sabatini



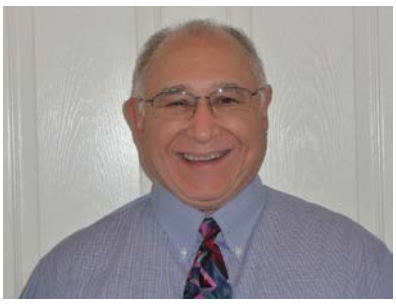
Dr. Jesse J. Sabatini received his B.S. in 2004 from Binghamton University, a PhD in synthetic organic chemistry from the University of Virginia in 2007, and engaged in post-doctoral studies for 2 years at the University of Pittsburgh. In 2009, Dr. Sabatini took a position as a research chemist at the US Army's Pyrotechnics Technology and Prototyping Division at Picatinny Arsenal. In September 2014, he was recruited by the US Army Research Laboratory to continue his research career as the Team Lead of the synthesis group within the Energetics Technology Branch. Since beginning his research career with the government, Dr. Sabatini has authored 22 peer-reviewed publications, has three patents issued, and an additional four patents pending approval at the US Patent & Trademark Office. He is the recipient of the 2014 Thomas Alva Edison Patent Award and two US Army Research & Development Awards for his work in Energetic Materials. He currently serves as a peer-reviewer for 23 scientific peer-reviewed journals.

Dr. Sabatini's work has been cited numerous times in press releases by *Nature*, the *American Chemical Society*, the *Royal Society of Chemistry*, the *German Chemical Society* and the *British Broadcasting Corporation (BBC)*. His research has also been covered in podcasts by *Chemistry World Magazine* and the *Naked Scientists*. Dr. Sabatini currently serves as the Vice President of the International Pyrotechnics Society, is the Vice President of Seminar Protocol of International Pyrotechnics Seminars USA, Inc., is co-chair of the "Green" Energetics Panel for the Joint Army-Navy-NASA-Air Force (JANNAF) conferences, and was the conference organizer for the 40th International Pyrotechnics Seminars. Dr. Sabatini has given numerous invited lectures, and has authored a chapter entitled "Advances toward the Development of "Green" Pyrotechnics."

As a current Vice President of the International Pyrotechnics Society, I am asking for your vote to serve another term in this capacity. Over the past term, I have worked to mentor newly hired and current scientists in the field of energetic materials. I am stressing to the energetic materials community that the International Pyrotechnics Society welcomes scientists and contributions in all areas of energetics (i.e. pyrotechnics, explosives and propellants), and not just the subject of pyrotechnics. Driving this point home to the energetic materials community will help maximize our numbers for both the International Pyrotechnics Society and will assist in maximizing our attendance at International Pyrotechnics Seminars.

Gregory Knowlton, PhD.

Consultant/Owner
Pyrogetics, LLC



Dr. Knowlton recently retired (March 2011) from Nammo Talley, Inc. after almost 31 years of service. He is currently employed part-time by Reactive Metals International, Inc. (RMII) as a Principal Research Investigator and by PyroSmart as a Consultant. Dr. Knowlton also manages his own consulting business/service, Pyrogetics, LLC.

Experience:

During his years (June 1980 through March 2011) with Nammo Talley, Inc. (formerly Talley Defense Systems), Dr. Knowlton held the following positions of increasing responsibility: Senior Chemist, Principal Investigator, Manager of Pyrotechnics and Explosives, Manager of Research, Director of Research, Director of Research & Test and Chief Scientist.

These positions involved major technical and managerial responsibility for program work in the areas of formulation development, analysis, characterization, processing, safety,

diagnostics and testing of gas generators, propellants, pyrotechnics and explosives.

Dr. Knowlton has published over 30 papers and authored over 30 technical reports in the areas of inorganic and analytical chemistry, pyrotechnics, propellants and explosives. He also holds 15 U.S. and 3 foreign patents for sodium azide-based nitrogen gas generating formulations, non-azide gas generating pyrotechnic formulations, pyrotechnic autoignition compositions for use in both civilian (automotive airbag, fire suppression) and military (munitions dispersion) applications, and heat transfer delays and igniters.

Education:

Ph.D. Inorganic/Analytical Chemistry, Arizona State University, 1982

B.S. and M.S. Chemistry, San Jose State University, 1974 and 1976

Memberships:
American Chemical Society, Member, since 1973
National Defense Industrial Association (1983-2011)
American Institute of Chemists, Fellow, since 1986
International Society of Explosives Engineers, Member since 2010
International Pyrotechnics Society (IPS), Treasurer since July 2004
IPSUSA, President since August 2012 (Vice President June 2010-July 2012)
JANNAF Propellant Development/Characterization, Propulsion, and Combustion Subcommittees (1983-2011)
WETC/DOTC/DOLC Co-Chairman for Pyrotechnics Section (2000-2007)
SAE - Chairman, "Inflatable Restraints Standards Committee" (1999-2001).

Candidate's Statement:

As IPS Treasurer for the past 11+ years, I have enjoyed the opportunity to interact with both new and continuing members in person or via mail/e-mail or telephone. Serving on the Board of Directors for the IPS has been challenging, as well as rewarding. In continuing as the Society's Treasurer for the next 2 years, my objective would be to maintain continuity in the area of IPS funds and financial dealings (e.g. paying bills, collecting dues, sponsoring/supporting individuals and activities, etc.). My goal, as always, is to do the very best job I can serving the Membership of the IPS as Treasurer and as a member of the IPS Board of Directors.

Dr. Shingo Date

Dr. Date received Bachelor of Engineering in Chemical Engineering in 1992, Master of Engineering in Chemical Energy Engineering in 1994, Doctor of Engineering degree in Chemical System Engineering in 1998, all from the University of Tokyo, and he subsequently joined the National Defense Academy in Yokosuka, Kanagawa, Japan.

His current position is Associate Professor at the Department of Applied Chemistry at the Academy, teaching classes and lab work on energetic materials, as well as doing research on energetic materials with the current focus on ammonium nitrate-based gas generating agents (also did some work previously on explosive reactive armors). He also worked as a Postdoctoral Research Scientist at New Mexico Institute of Mining and Technology in Socorro, New Mexico, USA between 2004-2005.

He has authored/co-authored 30 peer-reviewed journal articles, co-authored a textbook (in Japanese) on explosives, and he has made/co-authored nearly 100 presentations including 25+ international conference presentations.

He has been a member of the *International Pyrotechnics Society* since 2008, and he is currently the Secretary of the *International Pyrotechnics Society* from 2012, as well as an International Steering Committee member of the International Pyrotechnics Seminar and an International Advisory Committee member of the Workshop on Pyrotechnic Combustion Mechanisms. He is also a member of the *International Shock Wave Institute*, *Japan Explosives Society*, and *Combustion Society of Japan* to name the few.

Candidate's Statement:

It is a great honor and pleasure serving the members of the International Pyrotechnics Society for the past 4 years as the Secretary; and as a candidate for the third term, I hope that I could continue to be of some assistance in the global academic interactions for the members of the Society.

Dr. Anthony P. Shaw

My education was in chemistry, more specifically organometallic chemistry, and I received a Ph.D. from Columbia University in 2009. Since late 2010, I have been engaged in pyrotechnics research and development, working for the U.S. Army at Picatinny Arsenal in New Jersey. Over the last five years I have developed a deep interest in the art and science of energetic materials. Pyrotechnic smokes and delay compositions have attracted the majority of my attention so far, but the most exciting thing about pyrotechnics, in my opinion, is that there is so much more to explore, no matter what the specific application is.

I have served as Archivist of the International Pyrotechnics Society since 2014. Shortly after the 40th Seminar, the physical archives of the society were relocated to Picatinny Arsenal. Since that time I have inventoried the contents and arranged for a suitable long-term storage space for these materials, many of them having historical importance.

During the spring and summer of 2015, with the help of our former Archivist Rutger Webb and extensive work on behalf of our new Webmaster, Jay Poret, a new website was created for the Society. I spent quite some time creating the content for this website, especially in documenting the early history of the Seminars and how those activities evolved into what IPS is today.

I have helped numerous members with article requests over the course of my first term, and I enjoy helping others obtain the information they need—the Seminar proceedings are quite a valuable resource. I would be honored to serve another term as Archivist. If elected, I would continue to do my best to serve the membership and assist the Board of Directors.

I firmly believe that IPS will continue to achieve success as a professional society by welcoming members engaged in *all aspects* of energetic materials. The diversity of the membership in this respect, and the varied topics of the presentations at the Seminars, ensures that we will continue to learn from each other. On a final note, some of you may know that I will be co-chairing the upcoming 42nd IPS Seminar in Grand Junction, CO, with Prof. Lori Groven (SDSMT). We are both very much looking forward to seeing you there!

Keep the Community informed

Whether you have been awarded a prize, you have been promoted, you have transitioned to another job, taking a sabbatical year, whatsoever it is, please let the community know and drop us an e-mail at the following address:

e-c.koch@lutra*dyn*.com or sdate@nda.ac.jp

How to vote

Attached to the mail with which you received this newsletter is the ballot for the 2014-2016 term IPS Board elections.
Please note here this time that there are three candidates for vice-president with two votes to cast. Please note also that the ballot in which the required 6 votes are not filled, would not be counted.
You could either do electronic voting or manual voting. Both processes are equally anonymous as a result of procedure. Please find instructions below.

1. Electronic voting

For electronic voting you need to open the ballot with MS POWER POINT -97/2003 or higher. To vote for a candidate, please replace the circle behind the candidates name with an X. Save the file as "IPS-Ballot.ppt" and please return the file as an attachment to an e-mail to: sdate@nda.ac.jp

2. Manual Voting

For manual voting, please print out the ballot with MS POWER POINT 97/2003 or higher. To vote for a candidate, please mark the circle behind the candidates name with an X either with a ball-pen or a fountain-pen. Do not use a pencil. Please fold the ballot twice and send it by a regular mail to:

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Kanagawa 239-8686, JAPAN

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TNO innovation for life