

**Sektionen för Detonik och Förbränning**  
The Swedish Section for Detonics and Combustion  
anknuten till/affiliated with The Combustion Institute  
[www.sdfsweden.se](http://www.sdfsweden.se) [info@sdfsweden.se](mailto:info@sdfsweden.se)

## **SDF Newsletter 2021:1**

*The original text has been machine translated with Google translate...*

### **Welcome back to SDF**

The Section for Detonics and Combustion, SDF, is a non-profit association with the aim of gathering people in the science and technology areas of detonation and combustion for information exchange and collaboration. After the death of Secretary Stig R. Johansson, the business has been temporarily down, but now we are trying to get it going again. Feel free to forward this email to other interested parties.

SDF is affiliated with The Combustion Institute, CI, which is an international, non-profit, educational and scientific society in combustion science with 13 different areas. Members of SDF who want to take part in CI activities must register as a member on the CI website [www.combustioninstitute.org](http://www.combustioninstitute.org).

SDF has historically organized well-attended and appreciated international conferences focusing on stability, pyrotechnics and disposal of energetic materials. These conferences are important partly to market Swedish knowledge in the field but also to encourage Swedish students and researchers to work in the section's areas of interest. Sweden has had a strong tradition in the field of explosives since the time of the great powers and much thanks to Alfred Nobel's technological heritage. One of the section's most important tasks is to work for the creation of a department for explosives at a Swedish university.

SDF supports the Explosive Technology Museum in Karlstad, which shows the history of the Zakrisdalsverket and preserves ammunition knowledge and training in the explosives area.

### **Activities in progress**

Study visit: Sometime in 2022, SDF hopes to be able to visit:

- Hanssons Pyrotekniska in Lindesberg, Sweden, which manufactures pyrotechnic emergency equipment for shipping
- Orica AB in Gyttorp, Sweden, which is an icon in the production of explosives with, among other things, a new museum

Internet meetings: The section has obtained a Zoom subscription, which means that meetings can be held easily. Please reserve Thursday 2022-01-20 at 19.00 CET because then we will hold a test meeting. The invitation is coming.

## Two important questions for you as a member

SDF is a non-profit association where no one gets paid and it is based entirely on the members' own efforts.

### *What do you want SDF to do and what can you do for SDF?*

Some suggestions for activities:

- Newsletter
- Lecture ;simple and Covid-19 free via Zoom
- Study visit ;can SDF visit your company / institution?
- Conferences
- Document
- ???

Feel free to send an email to [info@sdfsweden.se](mailto:info@sdfsweden.se) and tell us.

## Obituaries



*Stig R. Johansson, secretary and treasurer SDF*

*As previously announced, our dear friend Tekn. Lic. Stig R. Johansson, Jönköping, died after a period of illness at the age of 88 years. He most recently leaves behind his wife Göta and daughters Görel and Erika with families.*

Stig was born in 1932 in V. Sallerup in Skåne. After graduating as a chemical engineer in Helsingborg in 1954, Stig married Göta Thulin, after which it was off to KTH where he graduated with a master's degree in 1959. He then became the 1st laboratory assistant to the legendary professor Lars Gunnar Sillén at the Department of Inorganic Chemistry. Stig became Tekn. Lic. in chemistry in 1966, after which he was employed as head of research at STAB in Jönköping. When Swedish Match (formerly STAB) moved all research to England in 1991, Stig chose to retire with a contractual pension. He was then "convener" in an EU working group on standardization issues concerning energy recovery from packaging waste 1991-1997.

Stig has always been interested in teaching and also worked as a chemistry teacher within Hermods and wrote several textbooks, the most recent as late as 2016. In connection with writing this book, he was invited to lecture to future chemistry teachers in China. As a chemistry teacher, he was very inspiring and really made us think before trying to write a reaction formula. When the Friends of the Match Museum was formed in Jönköping in 1993, Stig became its first chairman and as such he wrote a number of writings on match history. He has been a staunch Rotarian since 1979.

Stig was elected to the Section for Detonics and Combustion (SDF), then a section of the Swedish National Committee for Mechanics in IVA, in the mid-1960s and has been its secretary and treasurer since 1969. Stig has been the driving force in SDF throughout the years. . He had a huge

international network and was "outstanding" in keeping in touch with everyone in the field. He published our Newsletter several times a year and put an enormous amount of work into listing all relevant conferences and the like over the next few years. He loved to write and kept in touch by letter with many interesting people who have visited our conferences over the years. As a conference organizer, he was gracious but demanding towards both conference hotels and presenters. He demanded a correct use of language, whether it was English, German or Swedish as well as correctly reported chemical formulas and calculations.

In connection with Stig's work as a "convener" within CEN, he found that there was no forum for exchanging information regarding zone reactions such as waste incineration. He therefore called for the first conference International Disposal Conference which was held in Lund in 1997. It was the first of seven conferences, the most recent in 2013. Stig was behind all these conferences. But he was also very active in the organization of SDF's nine Pyrotechnics Days 1969-1990, the 14 Stability Symposium 1967-2007 and the 16th International Pyrotechnics Seminar in Jönköping 1991.

Our loss to Stig is very great. At the same time, we are very grateful that we had him as our secretary and very good friend for such a long time. We will remember his deed for a long time!  
/ Ola Lifth for the friends in SDF



### **Jonas Grahn, pyrotechnician and contractor at Smålands Krutbruk**

died on 16 January 2020 in the suites after a short illness.

[www.pyrosmalandskrutbruk.se/se/foretaget/historik/](http://www.pyrosmalandskrutbruk.se/se/foretaget/historik/)

Jonas began his pyrotechnic career by firing model rockets and started a rocket club. After he was fined for making the rocket fuel zinc without a permit, he decided that he would at least do this in the right way and become a professional. I first heard about Jonas in the 90's when I was looking for a supplier of stage effects. Jonas was in principle Sweden's only manufacturer of effects for stage and film use at that time. Jonas thus played a major role as a supplier to film and theater in Sweden and also to Norway.

Jonas was also relatively active with consultations for television and military and police exercises, High Chaparral and the like. Jonas' educations were also a big part of the business and he was an esteemed course leader. He had a slightly special military style but was a good educator. He held courses for both theaters and the common man, long before it became compulsory with education in pyrotechnics. At competitions such as the Swedish Championships in Fireworks and the Student-Swedish Championships, Jonas was occasionally involved as safety manager and became an even more familiar face to the industry.

Jonas as a person was special and could be difficult to get into life. He often had the guard up in public contexts. But if you knew him well, you would notice that he had a big heart and greater self-

distance than you might think.

Jonas ran one of Sweden's largest sales outlets for consumer fireworks on New Year's with a demo that was widely known and well attended. He arranged bus trips from all over Småland and sold sausages and coffee - he was a driven entrepreneur. Over time, sales of consumer fireworks declined in the face of increasing competition.

When the requirements for CE marking came, Jonas discontinued his production of stage effects and began to focus more on his business in tourism as a co-founder of a successful zipline course.

We remember Jonas Grahn as a truly colorful person with a fox behind his ear.  
/ Martin Hildeberg Manager / Display Designer Göteborgs FyrverkeriFabrik "

**2021 års styrelse för Sektionen för Detonik och Förbränning, SDF** [info@sdfsweden.se](mailto:info@sdfsweden.se)

***Ola Listh, Chairman, [ola.listh@telia.com](mailto:ola.listh@telia.com)***

*Retired Director of Research at FOI specialized in ammunition safety issues. Broad experience from research on energetic materials, fuzes, and risk analysis. Extensive involvement in creating international cooperation within WEAG, EDA, and NATO. Combustion Institute Administrator for Sweden.*

***Dan Loyd, Vice Chairman, [dan.loyd@liu.se](mailto:dan.loyd@liu.se)***

*Professor emeritus of Applied Thermodynamics and Fluid Mechanics. Experience of i.a. thermal analysis of pyrotechnics, filling of explosives and temperature measurement technology. Interested in technology and technology history.*

***Håkan Ljungqvist, secretary, [hakan@gumba.nu](mailto:hakan@gumba.nu)***

*Interested in technology and technology history. 40 years of experience within the Technical Museum Friends, TMV, with arranging lectures, study visits and bus trips.*

***Hans Wallin, treasurer, [hans.wallin@cesium.se](mailto:hans.wallin@cesium.se)***

*Lifelong experience in handling explosive goods. Development and production and recycling of explosive goods. Project manager for EU projects on vocational training for personnel working with explosive goods. Expert for the UN projects IATG and SaferGuard. Today specializes in Physical Security and sustainable systems for handling explosive goods. Would like SDF to be involved in lifelong learning and skills development for professionals. Considers it extremely important that SDF Sweden develops into a Swedish member-controlled network center for explosive goods.*

***Nils Örnebring, member, [nils.ornebring@gmail.com](mailto:nils.ornebring@gmail.com)***

*Experience in the explosives industry for 30 years. Curator of the Explosive Technology Museum Zakrisdal, Karlstad. The museum is interested in preserving ammunition knowledge and education in the explosives area.*

***Per Alenfelt, co-opted member [per.alenfelt@hansson-pyrotech.com](mailto:per.alenfelt@hansson-pyrotech.com)***

*Pyrotechnist with broad experience of development and production of military and civilian pyrotechnic devices, mainly for the production of visual light and smoke. Passionate interest for fireworks and cigars.*

**Alexis Bohlin, co-opted member, [alexis.bohlin@ltu.se](mailto:alexis.bohlin@ltu.se)**

*Senior researcher in rocket propulsion systems. Developer of unique coherent laser diagnostics and imaging systems for measurements of temperature, species concentration, and density in flames.*

**Bo Janzon, auditor, [bo.janzon@secrab.eu](mailto:bo.janzon@secrab.eu)**

*Professor Bo Janzon, Graduate Engineer (Engineering Physics, KTH), Ph.D. (Medical Science, Göteborg University), National Defence College. 37 years at FOI/FOA working with explosives, weapons, munitions, effects, protection, vulnerability and international humanitarian law. Formerly Director of the Weapons and Protection Division at FOI/FOA. Internationally renowned scientist, Lifetime Fellow of the Royal Swedish Academy of War Sciences and the International Ballistics Society.*

**Karl Johan Sandels, Nomination Committee, [kjsandels@hotmail.com](mailto:kjsandels@hotmail.com)**