

**Opening Ceremony  
SH Connell (University of Johannesburg)**

Good morning ...

Honorable Minister : Environment, Science, Technology and Innovation,

Honorable Minister : Tertiary Education

Pro Vice Chancellor – The University of Ghana

Registrar

Provosts, Deans, Directors, Heads of Departments

Members of Parliament

Members of the Diplomatic Corps,

Representative of UNESCO

Local and International Organising Committees,

Good Morning all delegates to the Conference, Distinguished Scientists

**Pan African Conference of Crystallography  
African Light Source Conference**

A special welcome to all delegates, those from Ghana, the West African region, Africa, and indeed the entire world.

Ladies and Gentleman

A very special welcome to the younger delegates, the students, the early career researchers.

Thank you all for travelling to this venue, in the University of Ghana, Accra, Ghana, Africa, to participate with us in our common, incredible, goal for Africa.

The African Light Source is the most important, common, shared, very-large scale, scientific infrastructure for Africa, and our dream is it will not only be important for Africa, it will also be very, very important for the world.

**What is a light source ?**

Its an enormous, kilometer scale, premier, scientific instrument.

It needs a lot of space, not only for the instrument, but for the technology, learning and commercial and cultural hub it soon becomes. A light source is a seed and a magnet for high tech industry and all kinds of associated research institutions, in all fields.

It has massively transformed science, human capacity training, and competitive industry in the countries which have one.

It's very expensive ..... but highly productive, and comes with a strong business case and science case, also the education and training cases.

Imagine a powerful facility like the Large Hadron Collider of CERN, but for many disciplines, not just Particle Physics.

Or imagine the Hubble Telescope, or the Square Kilometer Array, but for many disciplines, not only for Astronomy.

Now imagine this new facility, which also has a direct bearing on stimulating competitive Industry and also on solving Africa's most pressing problems.

A light source serves and unites many research disciplines, Health Science, Bio Science, Materials Science, Energy Science, Environmental Science, Geo Science, Minerals Science, Nano Science, Heritage Science, amongst many others.

Already there is a vast excellence, originating from Africa, producing excellent scientific results mostly from outside the continent.

We can only stem the diaspora, even reverse it for Africa, and then make Africa a Science Mecca for the world, if we achieve a light source in Africa.

The African Light Source will be a key component of leveraging the opportunity presented by the African Youth Boom. This opportunity will become an opportunity for the entire world.

This is a wonderful mission that needs the areas of politics, business, finance, science, engineering, technology, industry, training, and outreach.

Both these two conferences PCCr2 and also AfLS2, are inherently multi-disciplinary.

Both Conferences have a strong socio-economic and political element, especially the African Light Source Conference.

The First African Light Source Conference was in Grenoble, at the European International Light Source Facility, at the end of 2015.

We had many outcomes, such as the Grenoble Resolutions, The African Light Source Roadmap and the African Light Source Steering Committee, which is progressing the Roadmap. There is tremendous progress due to the efforts of many individuals, organizations, institutions and programmes within this context since then.

Our meeting here in Ghana is very special.

This is where our journey becomes both bottom up and also top down. Here we will make giant strides forward on the Roadmap.

We will once again review the amazing made possible with a light source, as well as the African contributions thereto, and also look at progressing the politics, developing the strategic thinking and the business case for Africa.

Within the Roadmap, which we will re-enforce and extend, we expect concrete outcomes laying the foundations for Pan African Thinking and also African Consortia.

We are progressing to a Pan African political and scientific prioritization of the African Light Source, in conversations with the appropriate African national governmental channels, political channels, Pan African channels and other appropriate organizations. The African Academy of Science, is leading a session of this conference.

Apart from the scientific discussions, there will also be three kinds of African Consortia considered.

- Africa Consortia for shared and jointly funded Regional / Local Infrastructures such as lab scale Diffractometers of various kinds, Tomography equipment, so called Table Top or small footprint High Brightness (small) Light sources, with associated equipment for sample preparation and pre-characterization,
- Africa Consortia Membership of an international Light Source or even Light Sources. Here we will improve African access, training and scientific outputs as well as bring in African Governmental participation in international infrastructure governance.
- Africa Consortia Beamline(s) at a nearby Light Source

Represented here are the light sources :

Sirius (Brazil), Diamond (UK), SOLEIL (France), ALBA (Spain), Elettra (Italy), Taiwan, the NSLS II (USA), Bessy II and the ESRF (An International Light Source based in France to which South Africa is already partnered), also many other international friends of Africa.

African Scientists, Institutions, International friends and International Institutions are united and focused within the African Light Source Foundation, to pursue this dream, which we take stock of and plan strategically about in the conference.

We wish all success to this Conference.