Cameroon Dschang University: Cote d Ivoire Abidjan diffraction center (March 2013) Houphouët-Boigny (FHB) University





**Cooperation with Bruker** 



Where ?

Three levels

- Subsaharan countries :
teaching, equipment, young researchers,
networks

- Maghreb and Egypt young researchers, networks
- South Africa

recognized laboratories in crystallography has contributed to the initiative for more than 10 years with PhD programs

AIM: developing crystallography in African countries

- -teaching at university level and to public
- young researchers
- research and equipement
- Networks, crystallography association
- Africa crystallography meetings

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Subsaharan and Maghreb countries: Crystallography schools
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already done Cameroon, Cote d Ivoire, Morocco, Algeria, Tunisia, RdC, South Africa, Zimbabwe

2015/16 Senegal, Gabon, Kenya, Zambia
Nigeria, Congo, Madagascar ...
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#### **IUCr contributions**

Organizing the scientific part of the school air tickets for lecturers fellowships for students ( PhD, post doc , young Prof)

#### **Local organization**

Accommodation for lecturers

Organizing the scientific part of the school

Technical facilities

**Program of the schools** 

Adapted to the level in crystallography

basic crystallography and diffraction

powder diffraction and industry applications

crystal structure determination

advanced crystallography; incommensurate, electron density modeling, synchrotron neutron (Cheiron School) ...

**Research and Equipment** 

Building a crystallography laboratory in partnership with a company:

It is the second step after the crystallography schools

Installation of powder or/and single crystal diffractometers with a very reduced contribution of the local universities.

**Teaching how to perform good experiments** 

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HOW?
Three partners
      a Company:
gives for free a second hand diffractometer totally renewed
      the local University:
   buy the small equipment (X-ray tube, computer,
binocular), prepares the diffractometer room
AND hires a crystallographer at the assistant prof level to
run the machine if no crystallographer is available
     IUCr
Pays for the shipping and organizes the training together
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with the company

Research and Equipment – up to now only partnership with Bruker:

new crystallography laboratories

Cameroon Dschang Powder diffractometer 2013
Single crystal
when the crystallography assistant prof is hired

Cote d'Ivoire Abidjan 2015

Powder and single crystal diffractometers to be installed in 2015; in Abidjan there is already an experienced team of crystallographers

#### **Young researchers**

Post Doc PhD programs within Africa or BRICS countries

a sponsorship is being discussed within the IUCr Executive Committee

possible collaboration with TWAS, UNESCO possible collaboration with large facilities

#### **International meetings**

bursaries to attend regional meetings

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Interested?
For a school?
For equipment?
To participate as a sponsor?
For ...
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