

EUROPEAN SYNCHROTRON RADIATION FACILITY

INSTALLATION EUROPEÉENNE DE RAYONNEMENT SYNCHROTRON



Professor William G. Stirling

Directeur Général

Tel: (+33) 04 76 88 20 30

Fax : (+33) 04 76 88 24 18

E-mail: stirling@esrf.fr

Dr. Vasili Tsakanov

Technical Director

CANDLE

Acharian 31

375040 Yerevan

ARMENIA

Grenoble, March 27, 2003

Dear Dr. Tsakanov,

It is with great satisfaction that we note the advancement of the CANDLE project. We admire the competence and the perseverance of our Armenian colleagues in bringing this ambitious project closer to realization.

We observe that the demand for synchrotron light as a tool for a large variety of advanced science is still increasing, and is far from satisfied by the existing sources. To respond to this demand we need synchrotron sources of various capabilities in all regions, with the ambition to advance science and technology as a basis of human welfare. In addition, these advanced facilities will provide a framework within which to initiate new science, to bring together different fields of science within one user community, to create a challenge for local and national industries, and to provide a creative, international, multidisciplinary and competitive environment, in particular for young scientists.

It is in this context that we see your efforts and also the efforts of the SESAME project, which we also support, and we welcome your project as part of our scientific community. Where appropriate, we shall be delighted to offer our scientific and technical advice. It is in the interest of the worldwide community that CANDLE should become an active, creative and stimulating partner.

With our very best wishes,

Yours sincerely

W.G. Stirling.

Deutsches Elektronen-Synchrotron DESY

in der Helmholtz-Gemeinschaft

Chairman of the Board of Directors



Hamburg

The Honorable Levon Mkrtchian
Minister of Education and Science of Armenia
Ministry of Education and Science
13 Movses Khorenatsi Street
375010 Yerevan, Armenia

FAX: +3741 - 527343

25 March 2003

Dear Minister:

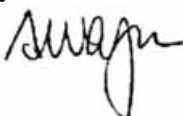
This letter is concerned with the creation of the new synchrotron light facility CANDLE in the Republic of Armenia. Having a long term experience of collaboration with the Armenian scientists and being aware on the favorable recommendation of the Review Panel on the CANDLE project, DESY supports the creation of the new international synchrotron light facility in Armenia.

The tremendous growth in the last decade of research in life and material sciences emphasized the importance to develop new technologies for the application of synchrotron radiation. The user demand is continuously increasing worldwide for more powerful and tunable light sources. That is the reason for DESY to consider a conversion of the PETRA ring into a synchrotron light facility in 2007 in addition to the TESLA-FEL program.

There is no doubt that a scientifically sound project as CANDLE will be an asset for Armenia with its long tradition in basic and applied science. DESY and CANDLE already established a cooperation agreement on accelerator physics and synchrotron radiation usage. Within the framework of this cooperation, DESY expressed its willingness to make in kind contribution to the new project by means of the components of the S-Band linear accelerator for the injector system of CANDLE.

I am confident that CANDLE upon its completion will enable the Armenian scientists and their foreign colleagues to perform frontier research in a wide spectrum of basic and applied sciences. Please accept my lasting support for this project.

Sincerely Yours


Prof. Dr _____,ner



Trieste, March 20, 2003
OurRef.: 018/03-CJB/MA

Mr. Levon Mkrtchian,
Minister of Education and Science
Republic of Armenia,
Ministry of Education and Science,
13 Movses Khorenatsi Street,
375010 Yerevan, Armenia

Dear Mr. Mkrtchian,

I am aware of the project progress of the new synchrotron light facility CANDLE in the Republic of Armenia and I desire to express my firm support for this very important initiative. Our experts are familiar with the CANDLE conceptual design and we think that the work has been done in a very competent manner. The project described addresses all the main accelerator requirements and will satisfy User requirements. There is no doubt that such a scientifically sound project will be vital for the promotion of scientific and technical research in the Region where Armenia is located. Armenia has the great advantage of having an abundance of knowledgeable scientists, who will make tremendous contributions to the advancement of research and technology that will benefit Armenia, other countries around the world and the community in general.

Research world-wide, during this last decade, has seen a tremendous growth in the use of synchrotron radiation. The use of modern synchrotron radiation facilities accompanied by the development of the high technology infrastructures attracts thousands of scientists world-wide to perform joint research.

ELETTRA is the Italian national synchrotron radiation facility operating in the 2.0 to 2.4 GeV range. Its mandate is a scientific service to the Italian and international research communities, based on the development and open use of light produced by synchrotron and Free Electron Laser sources. The laboratory performs frontier research in a broad range of material, environmental and life sciences.

The shortage of available synchrotron light facilities in Europe has necessitated the construction of new machines: DIAMOND and SOLEIL. These facilities will have to both absorb the present Users and also the strong future demands for synchrotron radiation. As with all other facilities overbooking will be an issue. I believe that the User case for CANDLE upon its completion to be very promising with the possibility that funding can be made available from the European Community to support joint research programs at the new facility. I personally look forward to such research programs between ELETTRA and CANDLE.

Please accept my best wishes with the new project that has already been recognized by the international scientific community as a world-class project.

Sincerely yours,

Professor Massimo Altarelli
Managing Director,
Italian National Synchrotron Light Facility, ELETTRA

c.c: Dr. V. Tsakanov, Technical Director,
Center for the Advancement of Natural Discoveries
Using Light Emission -CANDLE,
Acharian 31, 375040 Yerevan, Armenia

Forschungszentrum Karlsruhe
in der Helmholtz-Gemeinschaft

Institut für Mikrostrukturtechnik

zertifiziert nach DIN EN ISO 9001

Leiter: Prof. Dr. V. Saile



Forschungszentrum Karlsruhe GmbH, Postfach 3640, 76021 Karlsruhe

Mr. Levon Mkrtchian
Minister of Education and Science
Republic of Armenia
Ministry of Education and Science
13 Movses Khorenatsi Street

375010 YEREVAN
ARMENIA

Date: 17. März 2003
Bearbeiter/-in: Prof. Dr. V. Saile
Telefon 07247/82-2740
Telefax 07247/82-3928
E-Mail: volker.saile@imt.fzk.de
Unser Zeichen:
Ihre Mitteilung:
No. of pages: 2

FAX: 00374-1 - 527343

Dear Minister Mkrtchian,

in January of 2001 I met several Armenian scientists at a small meeting at the German accelerator center, DESY, Hamburg, Germany. We discussed with Dr. G. A. Voss, one of the most respected accelerator specialists in the world, technical features of and scientific opportunities with new synchrotron radiation sources. We also became aware of the large number of excellent Armenian scientists who, however, work mostly abroad. We felt, that a national Armenian research project could serve as a kind of "lighthouse" guiding the way for Armenian scientists worldwide and at home and, in particular, attracting the young to modern science and technology. For reaching such a goal a synchrotron radiation source is an ideal instrument by serving several scientific communities from biologists to physicists and having the potential of involving hundreds of scientists and engineers per year.

I was very pleased when I learned that Armenian scientists are pursuing such a plan for a synchrotron light source in the Republic of Armenia under the project name CANDLE. I would like to express herewith my enthusiasm and support for this highly important initiative. CANDLE has the potential of promoting science and technology in Armenia, in the neighboring countries, and worldwide.

I have been working with synchrotron radiation since the early seventies and have built and/or operated several synchrotron radiation laboratories. I have witnessed the rise of synchrotron radiation research with an astonishing growth rate over many years with no end of this development in sight. Serving as a member of advisory boards of such facilities I became also convinced that synchrotron radiation facilities are highly suited to the needs of countries with a vision for the future even if they are not in the league of the rich ones.



Forschungszentrum Karlsruhe GmbH
Mitglied der Hermann von Helmholtz-
Gemeinschaft Deutscher
Forschungszentren e.V. (HGF)
Hermann-von-Helmholtz-Platz 1
76344 Eggenstein-Leopoldshafen
Telefon 07247 / 82-0
Telefax 07247 / 82-5070
<http://www.fzk.de>

Vorsitzender des Aufsichtsrates:
Ministerialdirektor
Dr. Hermann Schunck
Vorstand (Geschäftsführung):
Prof. Dr. Manfred Popp (Vorsitzender)
Ass. jur. Sigurd Lettow
(stellvertretender Vorsitzender)
Dr.-Ing. Peter Fritz
Prof. Dr. Reinhard Maschuw

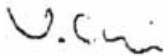
Sitz der Gesellschaft:
Weberstr. 5, 76133 Karlsruhe
Handelsregister:
Amtsgericht Karlsruhe HRB 302
Bankverbindungen:
Baden-Württembergische
Bank AG, Karlsruhe
Kto. 4 002 471 300 (BLZ 660 200 20)

Commerzbank AG, Karlsruhe
Kto 2 221 000 (BLZ 660 400 18)
Deutsche Bank AG, Karlsruhe
Kto. 0 236 521 (BLZ 600 700 04)
Dresdner Bank AG, Karlsruhe
Kto. 563 439 800 (BLZ 660 800 52)

New synchrotron radiation facilities provide excellent opportunities for science, technology and even economic development in the region. Furthermore, they attract the best brains from the region and abroad, last not least, because the availability of beamtime at existing sources cannot keep pace with the demand in several fields of science and technology.

I am deeply convinced that CANDLE has the potential of having a major impact on Armenia, the region, and of connecting Armenia closer to Europe and the USA. The vision of, e.g., German research teams working in Armenia with their Armenian counterparts is highly attractive. Overall, I am highly supportive of the CANDLE project and look forward for joint projects between CANDLE and my institute in Germany.

Yours sincerely,



Prof. Dr. Volker Saile

Director of the Institute for Microstructure Technology
University of Karlsruhe and
Forschungszentrum Karlsruhe GmbH

Director of ANKA GmbH, Karlsruhe, Germany

cc: **Dr. V. Tsakanov**, Technical director,
CANDLE, Acharian 31, 375040 Yerevan, Armenia

FAX: 00374-1 - 62 98 06