

Summary of the 1st Petra III / GKSS Workshop: High Energy Beamline at DESY

Date: Friday 30th June, 2006

Time: 09:00 to 16:45

Place: DESY, Bldg. 25f, room 456

Participants:

A. Schreyer (GKSS) *welcome address*
H. Franz (DESY) *introduction of PETRA III*
N. Schell (FZR) *presentation of the High Energy Beamline Project*

S. Shastri (APS, 1-ID), A. Snigirev (ESRF, Microfocus), T. Buslaps (ESRF, ID15), H. Reichert (MPI Stuttgart), G. Vaughan (ESRF, ID11), H.F. Poulsen (Risø Nat. Lab.), D. Haeffner (APS):
invited talks (*chronological*)

S.E. Offerman (TU-Delft), A. Pyzalla (MPI Düsseldorf): ***invited short contributions***

B. Hasse (TU-Berlin), U. Hoppe (Uni Rostock), W. Reimers (TU-Berlin): ***extern***

R. Röhlberger (DESY), O. Seeck (DESY, HR-XRD), J. Stempffer (DESY, resonant scattering), M.v. Zimmermann (DESY), E. Weckert (DESY), T. Wroblewski (DESY, radiation protection):
PETRA III intern

F. Beckmann (GKSS, HARWI, tomography), T. Donath (GKSS, HARWI), R. Kampmann (GKSS, WFN), R. Kiehn (GKSS, TKA), L. Lottermoser (GKSS, HARWI), H. Mahn (GKSS, TKA), R.V. Martins (GKSS, HARWI/HEBL, grain dynamics), T. Lippmann (GKSS, HARWI), H.-U. Ruhnau (GKSS, WFN):
GKSS intern

The aim of this first workshop for the **High Energy Materials Science HEMS** beamline at PETRA III was to gather input from experienced high energy synchrotron instrumentalists and users for the detailed layout and design of the future beamline.

First, current design proposals with different options at ESRF and APS were introduced, and their specific options for focusing optics discussed in depth (S. Shastri, A. Snigirev, T. Buslaps, and D. Haeffner) within presentations of 20 min plus 10 min discussion.

Second, the realisation of typical experiments, i.e. the interconnection of experimental needs for scientific topics, was explained with a strong technical emphasis by H. Reichert (surface and interface studies), G. Vaughan (time resolved studies), and H.F. Poulsen (3D grain mapping).

In a third part any potential user could give a short presentation of 10 min to express his suggestions and especially his wishes (S.E. Offerman, A. Pyzalla).

The late afternoon was spent in a round table discussion where specific open questions were addressed concerning the optimum source (source size, divergence, tunability), shielding requirements, the usefulness of an in-house test facility, window surface treatment and material, vibration control for high-load equipment, diffractometer specifications, and some more.

The fruitful discussions led to various modifications of the original design study. A revised beamline design will be publicly reviewed in a second open workshop somewhere in mid 2007 after an elaboration of the technical realisation suggestions given.