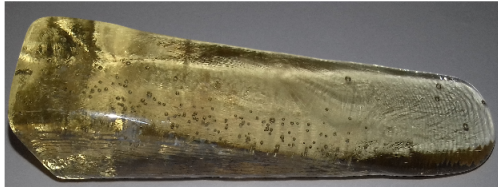
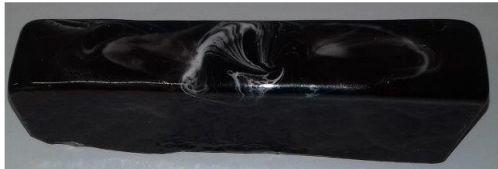


Development of radiation-hard and cost-effective inorganic scintillators for calorimetric detectors based on binary glass compositions doped with cerium - SCINTIGLASS

Short description of the aim(s) of the Project: Improve the optical properties of $\text{BaO} \cdot 2\text{SiO}_2$: Ce (DSB: Ce) material and optimise the production technology

Technology evolution



Current status of progress:

% of deliverables completed so far: 70 %

% of budget (100 kEUR) spent so far: 39%

Any remaining uncertainties w.r.t planned deliverables

No

Yes

Using students (PhD/MSc/BSc) in the project?

No

Yes : Postdoc@Unimib, PJAS 5months @CERN

Any interactions with other funded ATTRACT projects so far?

No

Yes

If your project were to be selected for ATTRACT Phase 2:

How would your technology scale up to become an industrial product/system?

Further technology optimization to improve timing characteristic and radiation hardness of the DSB material. From prototype to mass production optimized glass.

Development of HEP detectors (for instance sampling calorimeter)

Development of a neutron detector based on Gd contained scintillation glass material. It opens opportunity to build security detection systems for different applications.

With who you would need to partner for this to happen? (No names, just profiles of type of organizations)

Consortium of research organizations and universities in cooperation with industrial partner(s)

Have you already discussed this with KT Group?

No

What applications will you demonstrate with value for science, industry and society? (Examples)

Detectors for high energy physics, medical and homeland security applications

Any comments, remarks or observations you would like to make to CERN?