



Kansai Photon Science Institute, Japan Atomic Energy Agency
8-1-7 Umemidai Kizugawa-city Kyoto
619-0215, Japan

Sept. 11, 2011

Letter of interest for IZEST from QuBS at Kansai

Dear Professor Mourou:

In response to your letters of August 10, 2011 and September 01, 2011 we support your initiative for the International Center for Zetta-Exawatt Science and Technology (IZEST) and intend for QuBS at Kansai to participate in appropriate joint research activities that are aimed at promoting the highest laser intensity frontier along with associated high field science that this capability will enable. We are pleased to be part of the international team and network of scientists associated with IZEST and its global reach of activities including the LIL and XCELS new developments.

Increasing laser power and capabilities to levels far beyond those of the current state-of-the-art mandates a multidisciplinary coordinated effort that is intrinsically global. Pioneering and even revolutionary ideas must be encouraged and examined from many sources mindful of the novel and diverse applications afforded by such extreme optical fields. The potential application to advanced ultra-high energy and ultra-high power accelerators represents an excellent example of this, opening new paradigms in fundamental science.

It is critical at this time to forge the efforts of the accelerator physics and laser physics communities with a constructive collaborative framework like IZEST. I have recently established a new initiative at QuBS at Kansai to assess our future role in high field science which necessarily includes novel laser-plasma acceleration research at significantly higher intensities. The goals of IZEST to develop exawatt lasers that can drive particle accelerators to TeV energies and beyond are consistent with my new initiative. We at QuBS are pleased to support IZEST and to cooperate with this truly exciting effort of global scale.

I admire the leading role that France with the Ecole Polytechnique and the Commissariat à l'Energie Atomique is taking in this matter. It evinces a vision and a tacit optimism in the spirit of human innovation that we share with you. QuBS at Kansai will be proud to engage with the IZEST global team and network to advance ultra high intensity lasers to levels that can usher high energy and fundamental physics thereby promoting a newly emerging 'high field' scientific discipline.

Sincerely yours,

A handwritten signature in black ink that reads 'Paul R. Bolton'.

Paul R. Bolton, Deputy-Director-General,
Quantum Beam Science Directorate (QuBS)
at the Kansai Photon Science Institute (KPSI),
Japan Atomic Energy Agency (JAEA).