



**Centre Lasers Intenses et Applications**  
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Talence, September 24, 2013

Dear Professor Gérard Mourou,

By this letter our research group « Interaction, Fusion par Confinement Inertiel, Astrophysique » (IFCIA) of the Centre for Lasers Intenses et Applications (CELIA) confirms our willing to join the International Zetta-Exawatt center IZEST created on November 29, 2011 under the initiative of the Ecole Polytechnique and the CEA.

The IFCIA group subscribes fully to IZEST missions that are:

1. to define novel laser architectures and road map of the next generation of ultra high peak power/intensity and also the high average power lasers.
2. to facilitate the scientific and technical coordination among members of the international scientific community eager to discover new paradigms under pinned by extreme high intensity lasers. Particular attention will be devoted to:
  - Prompt particle acceleration.
  - High energy fundamental physics.
  - TeV Astrophysics and to the development of very high intensity lasers.
  - Societal application like proton therapy, nuclear transmutation.

CELIA is a joint research unit involving a partnership between the University of Bordeaux, the CNRS and the CEA. CELIA offers an outstanding opportunity for gathering expertises in the High Energy Density and Ultra-High Intensity Physics (UHI). CELIA missions are to pursue research in inertial confinement fusion for energy production and applications in warm dense matter and laboratory astrophysics using the high energy laser facilities in France and abroad. CELIA is an active member of the European Laser Network LASERLAB-EUROPE.

Our contributions to IZEST activities will be in the areas of the development new schemes of amplification of electromagnetic radiation with plasmas and sources of energetic protons. The expertise of the IFCIA group lies in theoretical studies and development of numerical codes for modelling the laser plasma interaction.

Sincerely yours  
Vladimir Tikhonchuk  
Professor, Group leader  
Deputy Director

A handwritten signature in blue ink, appearing to read "V. Tikhonchuk", is positioned at the bottom right of the page.