Letter of Agreement

for the study of C_2F_6 and C_4F_{10} molecular properties

BETWEEN

the "Trieste Section of INFN"

AND

the "Institute of General and Physical Chemistry, Belgrade University",

1. Scope of the agreement

On request of the Trieste team participating in the ePIC experiment at BNL (USA), the Trieste Section of INFN and the Institute of General and Physical Chemistry, Belgrade University, will perform a joint investigation of the properties of hexafluoro-ethane and perfluoro-butane molecules to determine their:

- excitation states, light emission and absorption probabilities, in particular the scintillation probability in the visible range,

- kinetic diameter of the molecules, and other chemical properties relevant for the selective permeability of membranes,

- the refractive index for the wavelength range between 200 nm and 900 nm,

- the properties of gas mixtures of hexafluoroethane and nitrogen.

- the properties of gas mixtures of hexafluoroethane and carbon dioxide.

2. Duration and cost of the agreement

The agreement has a validity of one year and a pure scientific and non-commercial basis.

The Institute of General and Physical Chemistry, Belgrade University will provide its recognized expertise in the field and will make available the dedicated research equipment already present at the Institute.

A contribution from the Trieste Section of INFN for an amount of **5000** Euro to cover the expenses related to the activities involved in the simulation and measurements performed by the Institute of General and Physical Chemistry, Belgrade University. The contribution will be paid upon receival of the corresponding invoice from the Belgrade Institute.

Trieste, 25/05/2025

For the Institute of General and	For the Trieste Section of INFN
Physical Chemistry, Belgrade University	Dr. Valter Bonvicini
Prof.	(director of INFN – Trieste)