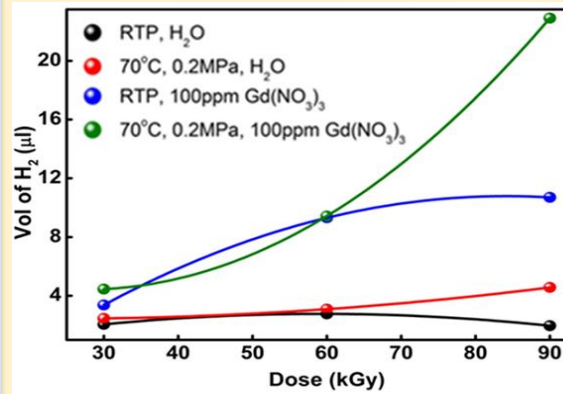


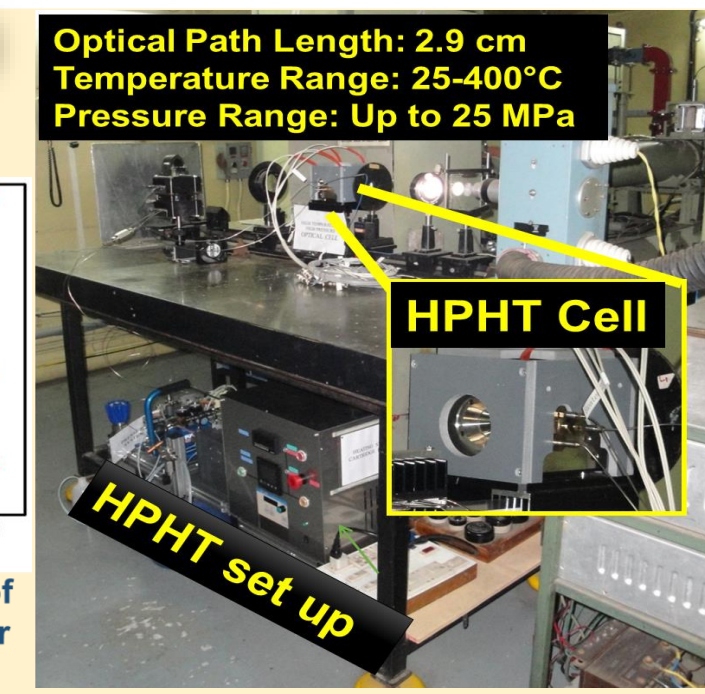
Development of Picosecond Electron Accelerator



Reactor Oriented Research

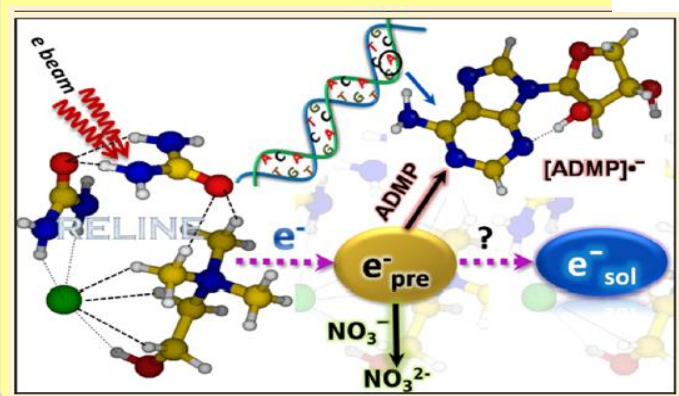
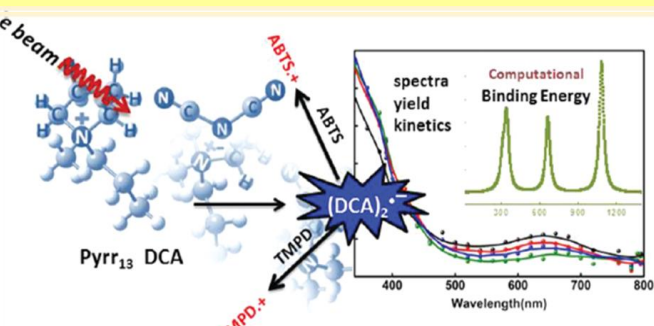


Radiolysis of water in presence of 100 ppm Gd³⁺ @AHWR moderator condition (70°C & 0.2 MPa)



Pulse Radiolysis Facility

Understanding of redox processes & Radiation stability are important aspects

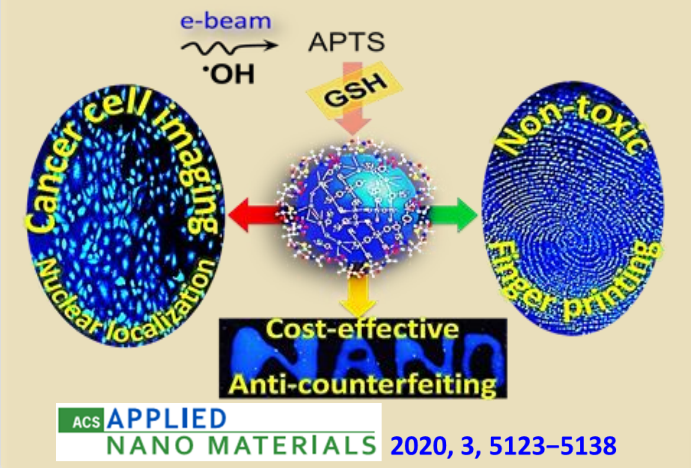


Dimer radical anion formation observed in pyridinium IL
JPC A 2018, 12, 3148–3155

Direct observation of solvated electron in Deep eutectic solvents
JPC B 2018, 122, 8900–8907

Nanomaterials for Biomedical & Forensics

Ionizing radiations for synthesis of variety of nanomaterials



Tuning of phase
Tuning of Morphology
Prolonged stabilization of α-Se NPs
Anti-cancer property
Re-usability of RTILs

ChemComm
2018, 54, 8753-8756

Se NPs
Size & Phase

Treatments	% Cell death
Control	~5
Na ₂ SeO ₃	~95
SeT35	~45
SeT120	~15