Appendix

List of Publications (Published/Communicated/Under preparation)

International Peer Reviewed Journal:
1. Efficient solvent system containing Malonamides in Room Temperature Ionic Liquids: Actinide extraction, Fluorescence and Radiolytic Degradation Studies;

2. Evaluation of DMDOHEMA based supported liquid membrane system for high level waste remediation under simulated conditions;

3. Modified Synthesis Scheme for \(N,N\'-\text{dimethyl}-N,N\'-\text{dioctyl}-2,(2\'-\text{hexyloxyethyl})\) malonamide (DMDOHEMA) and its Comparison with Proposed Solvents for Actinide Partitioning;

4. Novel Dipicolinamide-dicarbollide synergistic solvent system: Actinide extraction and Thermodynamic study;
   **Ajay B. Patil**, P. N. Pathak, V. S. Shinde, V. A. Babain, P. K. Mohapatra; (Manuscript communicated for publication).*

5. Evaluation of Malonic acid diamide analogues as radical scavenging agents;

6. Evaluation of \(N,N\'-\text{dimethyl}-N,N''\)-dicyclohexyl-malonamide (DMDCHMA) as actinide partitioning agent in polar diluents: Extraction and Thermodynamic study;
   **Ajay B. Patil**, P. N. Pathak, V. S. Shinde, P. K. Mohapatra; (Manuscript under preparation).*
7. Novel Extractant $N,N'$-dimethyl-$N,N'$-dicyclohexyl-2,(2'-dodecyloxyethyl) malonamide (DMDCHDDEMA) for actinide partitioning studies: Synthesis, Extraction, and Spectroscopic studies;

**Ajay B. Patil, A. B. Bhattacharyya, P. N. Pathak, V. S. Shinde, P. K. Mohapatra;**
(Manuscript under preparation).*

**Symposium/ International conference:**

1. Efficient synthesis of $N,N'$-dimethyl-$N,N'$-dioctyl-2,(2'-hexyloxyethyl) malonamide (DMDOHEMA) as actinide partitioning agent;

**Ajay B. Patil, Vaishali S. Shinde, P.N. Pathak, P.K. Mohapatra, V.K. Manchanda**
DAE BRNS symposium on Emerging Trends in *Separation Science and Technology (SESTEC-2010)*, held at IGCAR, Kalpakkam, Tamilnadu, during February 2010.

2. New synthesis route for $N,N'$-dimethyl-$N,N'$-dioctyl-2,(2'-hexyloxyethyl) malonamide (DMDOHEMA) and its evaluation under simulated high-level waste conditions

**Ajay B. Patil, Vaishali S. Shinde, P.N. Pathak, P.K. Mohapatra, V.K. Manchanda**
*Nuclear and Radiochemistry Symposium (NUCAR-2011)*, held at GITAM University, Visakhapatnam, A. P. during February 22nd to 26th, 2011.

3. Am(III) Permeation Studies across Supported Liquid Membrane impregnated with DMDOHEMA/$n$-dodecane;

**Ajay B. Patil, V.S. Shinde, P.N. Pathak, P.K. Mohapatra;**

4. Am(III) extraction studies employing diamide extractants from different acid media

**Ajay B. Patil, V.S. Shinde, P.N. Pathak, P.K. Mohapatra**
5. Extraction Studies of Am(III) using Malonamides Dissolved in Ionic Liquids  
P.N. Pathak, Ajay B. Patil, V.S. Shinde, P.K. Mohapatra  

6. Novel dipicolinamide-dicarbollide synergistic solvent system for actinide extraction  
Ajay B. Patil, V.S. Shinde, P.N. Pathak, V. A. Babain, P.K. Mohapatra  
Nuclear and Radiochemistry Symposium (NUCAR-2013), held at Govt. Model Science College, Jabalpur, India February 19th to 23rd, 2013.*

7. Pulse Radiolysis study of Malonic acid diamide analogues for their evaluation as radical scavenging agents  
Ajay B. Patil, Sougata Ghosh, P.N. Pathak, B. A. Chopade, V.S. Shinde  
National Symposium on Radiation and Photochemistry (NSRP 2013) held at North Eastern Hill University, Shillong (Meghalaya) during March 20th -22rd, 2013,*
(* not included in the thesis.)