List of Figures

Chapter 4

Chapter 5

List of Tables

Chapter 5

List of Publications

❖ **Papers published in international refereed journals**

1. *Effect of Micro Alloying on Glass Forming Ability of $Cu_{50}Zr_{50}$ Metallic Glass*
   Supriya Kasyap, Ashmi T. Patel, Arun Pratap
   AIP Conference Proceedings, 1536: 651-652, 2013

2. *Crystallization kinetics of $Ti_{20}Zr_{20}Cu_{60}$ metallic glass by isoconversional methods using modulated differential scanning calorimetry*
   Supriya Kasyap, Ashmi T. Patel, Arun Pratap
   Journal of Thermal Analysis and Calorimetry, 116(3):1325-1336, June 2014

3. *Heating Rate and Composition Dependence of Crystallization Temperature of Cu-based Metallic Glasses*
   Supriya Kasyap, Sonal Prajapati, Arun Pratap
   Advanced Materials Research, 1141: 156-161, 2016

4. *Glass Forming Ability of Zr-based Amorphous Alloys*
   Supriya Kasyap, Sonal R. Prajapati, Arun Pratap
   [Accepted for publication in Advanced Science Letters]

❖ **Papers under consideration for publication**

1. *Thermodynamic behavior of $Au_{49}Ag_{5.5}Pd_{2.3}Cu_{26.9}Si_{16.3}$ metallic glass in under-cooled region*
   Supriya Kasyap, Sonal R. Prajapati, Arun Pratap
   [Submitted to International Journal of Thermophysics]

2. *Bio-corrosion studies of $Co_{66}Si_{12}B_{16}Fe_4Mo_2$ metallic glass*
   Supriya Kasyap, Sonal R. Prajapati, Arun Pratap
   [Submitted to Advanced Electrochemistry]

❖ **Paper presented at Conferences**

1. *Effect of Micro Alloying on Glass Forming Ability of $Cu_{50}Zr_{50}$ Metallic Glass*
    Supriya Kasyap, Ashmi T. Patel, Arun Pratap
    International Conference on Recent Trends in Applied Physics & Materials Science
    (RAM-2013) – Bikaner, Rajasthan

2. *Heating Rate Dependence of Crystallization Temperature of $Zr_{20}Ti_{20}Cu_{60}$ Metallic Glass*
    Supriya Kasyap, Arun Pratap
    7th National Conference on thermophysical Properties
    (NCTP-2013) – Kanpur, U. P.

3. *Effect of Co substitution for Fe on the glass forming ability of $Fe_{48-x}Co_xCr_{15}Mo_{14}C_{15}B_6Y_2$ (x=0, 7) metallic glass*
    Supriya Kasyap, Sonal Prajapati, Arun Pratap
    National Conference on Perspectives of Physics in Multi-disciplinary Research
    (NCPJ-14) – Jaipur, Rajasthan

4. *Thermodynamic behavior of $Au_{49}Ag_{5.5}Pd_{2.3}Cu_{26.9}Si_{16.3}$ metallic glass in under-cooled region*
    Supriya Kasyap, Sonal R. Prajapati, Arun Pratap
    The 15th International Conference on Rapidly Quenched and Metastable Materials
    (RQ-15) - Shanghai, China

5. *Glass Forming Ability of Zr-based Amorphous Alloys*
    Supriya Kasyap, Sonal R. Prajapati, Arun Pratap
    National Conference on Advanced Functional Materials & their Applications
    (AFMA-2015) – Ajmer, Rajasthan

6. *Heating Rate and Composition Dependence of Crystallization Temperature of Cu-based Metallic Glasses*
    Supriya Kasyap, Sonal Prajapati, Arun Pratap
    National Conference on Recent Conference in Science of Materials (NCSM-2K15)
    – Vadodara, Gujarat

❖ Other publications

1.   *Kinetics of Phase Transformation in Metallic Glasses*
Arun Pratap, **Supriya Kasyap**, Sonal R. Prajapati, Ashmi T. Patel
ITAS Bulletin, 6 (1): 37-49, June 2013

2.   *A thermodynamic approach towards glass-forming ability of amorphous metallic alloys*
Sonal R. Prajapati, **Supriya Kasyap**, Arun Pratap,
Bulletin of Materials Science, 38(7): 1693-1698, December 2015

3.   *Non-isothermal crystallization kinetics of $Zr_{52}Cu_{18}Ni_{14}Al_{10}Ti_6$ metallic glass*
Sonal R Prajapati, **Supriya Kasyap**, Ashmi T. Patel, Arun Pratap
Journal of Thermal Analysis and Calorimetry, 124(1): 21-33, April 2016

4.   *Effect of driving force of crystallization on critical cooling rate for Pd based metallic glasses*
Sonal R. Prajapati, **Supriya Kasyap**, Arun Pratap,
[Accepted for publication in Journal of Thermal Analysis and Calorimetry]