

ACKNOWLEDGEMENT

It has been a long year of tremendous learning for me, not just in the scientific field but also on a personal level, as I write this letter of appreciation while putting the final touches on my Ph.D. I want to remember back on the folks who have been so kind and helpful to me throughout this time.

I want to start by expressing my profound thanks to Dr. Upendra D. Patel, Professor, Faculty of Technology and Engineering, The M S University of Baroda, Vadodara, for his unwavering support, inspiration, and enthusiasm. I genuinely appreciate him for guiding me through the rigorous experimental investigations when I was doing my study, analysing my data, preparing drafts of my research publication, and producing my thesis. I am very thankful to him for always being there in my hard times for research study. For my Ph.D. studies, I could not have asked for a greater adviser and mentor other than him. I genuinely appreciate his taking the time to edit my writing stuffs. He has taught me a lot, and I'll keep learning new things from him.

I want to say thank you to Dr. Jayesh Ruparelia for his many ideas and words of support. I am grateful to Dr. Navin Acharya, Department of Physics, The M S University of Baroda, Vadodara who helped me with XRD analysis. I would like to thank Dr. Vikas Patel, Sicart, Anand, and Dr. Abhishekh Kumar, Department of Geology, Faculty of Science, The M S University of Baroda, Vadodara who gave their valuable time for SEM analysis.

I would like to thank Government of Gujarat for providing SHODH scheme which gave me financial support for my research work.

Special thanks to faculty members: Dr Dinkar Bharambe, Dr. H. M. Patel, Dr. Nirav Shah, Dr. Pradeep Deota, Dr. Abhipsa Makwana, Mrs. Arti Galgale, and Dr. Geeta Joshi. Special thanks to laboratory staff: Mr. Sagarbhai, Mr. Dineshbhai and Mr. Rameshbhai. Special thanks to my fellow researchers: Kinjal, Pratik, Tilak, Katha, Malvi, Vishwajit, Urvi, Komal.

I would like to express my gratitude to my family- my parents, my husband and my in-laws who fully supported in each manner they can.

Finally, I would love to thank everyone who has helped me, whether they knew it or not. I also want to apologise if I didn't get to address everyone by name.

All of you are much appreciated.

Last but not least, I give thanks to God for giving me the perseverance and strength to go through all these years and my whole life in order to stand tall and proud today.

Janhavi Sanjay Ingle