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LIST OF PUBLICATIONS AND PATENTS

Publications

1. **Akanksha Gupta**, P. K. Roy, 'Synthesis and tuning the electro-magnetic properties of Co-Cr substituted Sr-hexaferrite towards diverse usages', *Mater. Sci. Eng. B Solid-State Mater. Adv. Technol. 263 (2021) 114815*.

2. **Akanksha Gupta**, P. K. Roy, 'Study the effect of Bi_2O_3 and sintering temperature on the electromagnetic properties of $SrFe_8Al_4O_{19}$ ceramic for permanent magnet applications', *Mater. Sci. Eng. B Solid-State Mater. Adv. Technol. 278 (2022) 115613*.

3. **Akanksha Gupta**, Manoranjan Kar, P. K. Roy, 'Substitutional effect of Ni-Al in electromagnetic properties of Sr-hexaferrite based non-rare earth magnet with high energy density for motor applications', *Mater. Chem. Phys. 292 (2022) 126842*.

4. **Akanksha Gupta**, Manoranjan Kar, P. K. Roy, 'Fabrication and elucidation of electromagnetic characteristics in Cr-Zn co-substituted strontium hexaferrite for high-frequency device applications'. (*manuscript submitted*)

5. **Akanksha Gupta**, P. K. Roy, 'Effect of Zn^{2+} ion substitution in Al^{3+}-substituted rare-earth free Sr-hexaferrite for different permanent magnet applications'. (*manuscript submitted*)

6. **Akanksha Gupta**, P. K. Roy, 'Improved strontium hexaferrites: An overview of current progress in synthesis, properties, and applications'. (*manuscript submitted*)

7. Nila Pal, Rajarshi Chakraborty, Anand Sharma, Utkarsh Pandey, Vishwas Acharya, Krishna Prajapati, **Akanksha Gupta**, Swati Suman, Parasuraman Swaminathan, Akhilesh Singh, Pradip Roy, Solution Processed Li-Al_2O_3/$LiNbO_3$/Li-Al_2O_3 Stacked Gate Dielectric for a Non-volatile Ferroelectric Thin Film Transistor, *Available at SSRN 4333535*.

8. Rajarshi Chakraborty, Nila Pal, Utkarsh Pandey, Subarna Pramanik, Srishti Paliwal, Swati Suman, **Akanksha Gupta**, Akhilesh Singh, Parasuraman Swaminathan, Pradip Roy, 'Fabrication of non-volatile memory transistor by charge compensation

of interfacial ionic polarization of a ferroelectric gate dielectric'. (*manuscript submitted*)

Patents

1. P. K. Roy, **Akanksha Gupta**, Composition and method for synthesis of strontium hexaferrite based non-rare-earth magnets, *Patent application no. 202011029080, Filing date: 08 July, 2020, Publication date: 06 November, 2020.*
2. P. K. Roy, **Akanksha Gupta**, Enhancement of hard magnetism in strontium hexaferrite based non-rare-earth magnets, *Patent application no. 202211031284, Filing date: 31 May, 2022.*

ATTENDED INTERNATIONAL CONFERENCES

1. **Akanksha Gupta**, P. K. Roy, ***"****Effect of sintering temperature in improving the hard magnetism of* $SrFe_8Al_4O_{19}$ *for permanent magnet applications" International conference on advances in ceramic & cement technologies: materials & manufacturing during* 13^{th} *-*14^{th} *of December 2021 at PDA College of Engineering in Kalaburagi, Karnataka, INDIA. (Poster Presentation)*

2. **Akanksha Gupta**, P. K. Roy, *"Study of modified strontium hexaferrite for magnetic data storage applications"* 3^{rd} *International conference on Advanced Materials for Better Tomorrow (AMBT 2021): Impacting Energy, Health and Environment during* 13^{th}*-*17^{th} *July 2021, organized by Jointly with Society for Interdisciplinary Research in Materials and Biology (SIRMB) and IIT(BHU), INDIA. (Poster Presentation)*

3. **Akanksha Gupta**, P. K. Roy, *"Study of strontium hexaferrite based non rare-earth magnet with enhanced energy-density for hard magnet applications'* 26^{th} *International Conference of International Academy of Physical Sciences (CONIAPS XXVI) on 'Advances in Applied Physics & Earth Sciences' during 18-*20^{th} *December 2020 at Department of Physics, School of Basic Sciences, Manipal University Jaipur, INDIA. (Poster presentation)*

4. **Akanksha Gupta**, P. K. Roy, *"Influence of Co-Cr substitution on structural and electro-magnetic properties of strontium hexaferrite* ($SrFe_{12}O_{19}$)*" International Conference on "Frontiers in Manufacturing Technology" (FMT 2020) during* 13^{th}*-*14^{th} *October 2020, organized by Department of Physics, School of Applied Sciences, Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar-751024, Odisha, INDIA. (Poster presentation)*

There is no real ending. It's just the place where you stop the story.

—— Frank Herbert