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| 1. | Title of the course | Chemistry of p- and f-Block Elements |
| 2. | Course number | CY608L |
| 3. | Structure of credits (L-T-P-C) | 3-0-0-3 |
| 4. | New course/modification to | New |
| 5. | To be offered by | Chemistry |
| 6. | Prerequisite | None |
| 7. | **Course Objective(s):** To discuss synthesis, structural properties and reaction mechanism of p and f block elements and their compounds. | |
| 8. | **Course Content:** Synthetic and structural aspects of nitrogen, phosphorous, sulfur, pseudo-halogens, interhalogen and xenon compounds; Borazines, boranes, carboranes, metallo-boranes, metallo-carboranes, boron nitrides, phosphazenes, sulfur-nitrogen compounds, and their applications; Silicates and aluminosilicates; Lanthanides and actinides: relativistic effect, isolation, properties, coordination chemistry, and reactivity, comparison to p and d-block elements, trans-actinides, applications. | |
| 9. | **Textbook(s):**<br>1. Huheey J E, Keiter E A, Keiter R L and Medhi O K, Inorganic Chemistry: Principles of Structure and Reactivity, 5th edition, Pearson (2022).<br>2. Housecroft C and Sharpe A G, Inorganic Chemistry, 5th Edition, Pearson (2018). | |
| 10. | **Reference(s):**<br>1. Douglas B E, McDaniel D H and Alexander J J, Concepts and Models of Inorganic Chemistry, 3rd Edition, John Wiley & Sons, Inc. (2006).<br>2. Shriver D F and Atkins P W, Inorganic Chemistry, 5th Edition, Oxford University Press, Oxford (2009).<br>3. Lee J D, Concise Inorganic Chemistry, 5th Edition, Wiley-Blackwell (2008).<br>4. Cotton F A, Wilkinson G W, Murillo C A and Bochmann M, Advanced Inorganic Chemistry, 5th Edition, John-Wiley & Sons, Inc. (1999). | |