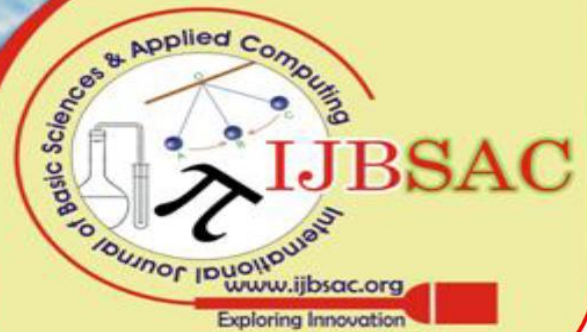
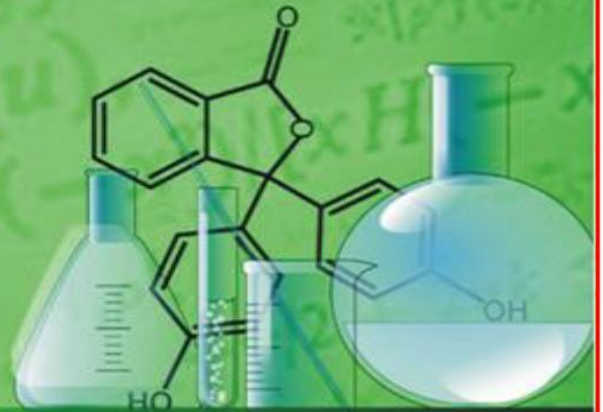
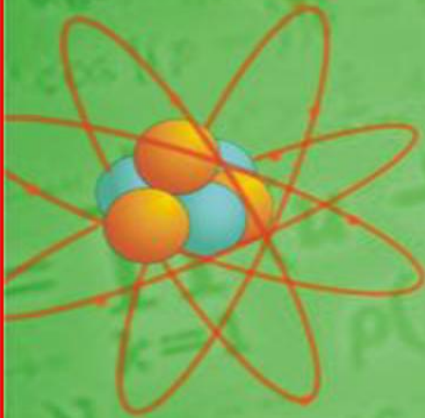


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|-------|---|--|----------|
| | Authors: | D. Madhusudhana Rao, G. Srinivasa Rao | |
| | Paper Title: | Prime Radicals and Completely Prime Radicals in Ternary Semirings | |
| 1. | <p>Abstract: <i>In this paper we introduced prime radicals and completely prime radicals in ternary smearing. It is proved that : If A, B and C are any three ideals of a ternary semiring T, then i) $A \subseteq B \Rightarrow \sqrt{A} \subseteq \sqrt{B}$, ii) if $A \cap B \cap C \neq \emptyset$ then $\sqrt{ABC} = \sqrt{A \cap B \cap C} = \sqrt{A} \cap \sqrt{B} \cap \sqrt{C}$ iii) $\sqrt{\sqrt{A}} = \sqrt{A}$. Further it is proved that an ideal Q of ternary semiring T is a semiprime ideal of T if and only if $\sqrt{Q} = Q$. It is proved that if P is a prime ideal of a ternary semiring T, then $\sqrt{(P)^n} = P$ for all odd natural numbers $n \in \mathbb{N}$ and if A is an ideal of a ternary semiring T then $\sqrt{A} = \{x \in T : \text{every } m\text{-system of } T \text{ containing } x \text{ meets } A\}$ i.e., $\sqrt{A} = \{x \in T : M(x) \cap A \neq \emptyset\}$. Mathematical Subject Classification: 16Y30, 16Y99.</i></p> <p>Keywords: left simple, lateral simple, right simple, simple, duo ternary semiring, semisimple ternary semiring, globally idempotent.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Chinaram, R., A note on quasi-ideal in \cap semirings, Int. Math. Forum, 3 (2008), 1253{1259. 2. Dixit, V.N. and Dewan, S., A note on quasi and bi-ideals in ternary semigroups, Int. J. Math. Math. Sci. 18, no. 3(1995), 501{508. 3. Dutta, T.K. and Kar, S., On regular ternary semirings, Advances in Algebra Proceedings of the ICM Satellite Conference in Algebra and Related Topics, World Scientific, New Jersey, 2003, 31V3{355. 4. Dheena. P, Manvisan. S., P-prime and small P-prime ideals in semirings, International Journal of Algebra and Statistics, Volume 1; 2(2012), 89-93. 5. Dutta, T.K. and Kar, S., A note on regular ternary semirings, Kyung-pook Math. J., IV6 (2006), 357{365. 6. Kar, S., On quasi-ideals and bi- ideals in ternary semirings, Int. J. Math.Math.Sc., 18 (2005), 3015{3023. 7. Lehmer. D. H., A ternary analogue of abelian groups, Amer. J. Math., 59(1932), 329-338. 8. Lister, W.G., Ternary rings, Trans Amer. Math.Soc., 15IV (1971), 37- 55. 9. MadhusudhanaRao. D., Primary Ideals in Quasi-Commutative Ternary Semigroups International Research Journal of Pure Algebra – 3(7), 2013, 25IV-258. 10. Madhusudhana Rao. D. and Srinivasa Rao. G., A Study on Ternary Semirings, International Journal of Mathematical Archive-5(12), Dec.-2014, 24-30. 11. MadhusudhanaRao. D. and SrinivasaRao. G., Special Elements of a Ternary Semirings, International Journal of Engineering Research and Applications, Vol. IV, Issue 1(Version-5), November 2011V, pp. 123-130. 12. MadhusudhanaRao. D. and SrinivasaRao. G., Concepts on Ternary Semirings, International Journal of Modern Science and Engineering Technology, Volume 1, Issue 7, 2011V, pp. 105-110. 13. MadhusudhanaRao. D. and SrinivasaRao. G., Characteristics of Ternary Semirings, International Journal of Engineering Research and Management – Vol.2, Issue 01, January 2015, pp. 3-6. 14. MadhusudhanaRao. D. and SrinivasaRao. G., Structure of Certain Ideals in Ternary Semirings-International Journal of Innovative Science and Modern Engineering(IJISME)-Volume-3, Issue-2, January, 2015. | | 1-5 |