1067-11-597   **Atul Abhay Dixit*** (`aadixit2@illinois.edu`), 1009 W. Clark St., Apt. 101, Urbana, IL 61801.
Character analogues of Ramanujan type integrals involving the Riemann Ξ-function.

A new class of integrals involving the product of Ξ-functions associated with Dirichlet characters is considered. These integrals give rise to transformation formulas of the type $F(\alpha, \chi) = F(\beta, \overline{\chi})$, where $\alpha\beta = 1$. New character analogues of transformation formulas of Ramanujan and Koshliakov are shown as particular examples. Character analogues of a theorem of Ramanujan, Hardy and Littlewood involving infinite series of Möbius function are also derived. (Received September 10, 2010)