1135-35-1536 **Abdullah S Erdogan*** (aserdogan@gmail.com), aserdogan@gmail.com, and **Ali Ugur Sazaklioglu** and **Allaberen Ashyralyev**. *Unique solvability of a source identification problem for a semilinear equation with a final overdetermination.*

In this work, unique solvability of a source identification inverse problem for a semilinear equation with a final overdetermination in a Banach space is investigated. Moreover, the first and second order of accuracy difference schemes are presented for numerically solving this problem. The existence and uniqueness results for these difference schemes are given. The efficiency of the proposed method is evaluated by means of computational experiments. (Received September 23, 2017)