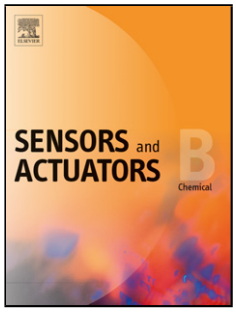

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Electrochemical monitoring of single nucleotide polymorphisms of rice varieties related to blast resistance based on PCR product and T4 DNA polymerase

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Highlights

- PCR product with controllable sticky end was used as a powerful signal amplification tool.
- High concentration of ligated product was obtained by thermo cycle step in liquid phase.
- The strategy was developed to monitor SNP of rice varieties related to blast resistance for the first time.

Abstract

Rice blast is one of the most destructive disease, which is estimated to cause 10-30 percent loss of global rice output annually. Single nucleotide change in *bsr-d1* promoter (SNP-33G) is conferred broad-spectrum resistance to rice blast. In this paper, we reported the construction of a relatively simple, inexpensive and ultrasensitive