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STUDIES ON THE DEVELOPMENT PROCESS OF THE MAXIE RICE ANTHERS BY MEANS OF THERMAL ANALYSIS METHOD

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Abstract The thermal analysis method was used to study the pyrolytic process of the anthers of the different developing stages of pollens from the fertile and male sterile lines of Maxie rice. The TG/DTA curves of the anthers were obtained. From these curves, the regularity of the pyrolysis of the anthers were studied. The relationship between the material changes of the anthers in the development process and their development stages of pollen were discovered. The apparent kinetic parameters and the experimental kinetic equations for the development of the fertile anther of Maxie rice were calculated and established. Furthermore, the abortion process of the male sterile anther of Maxie rice were discussed in the paper.

Key words anthers of Maxie rice, development, abortion, thermal analysis, kinetics