

New approach for synthesis of activated carbon from bamboo

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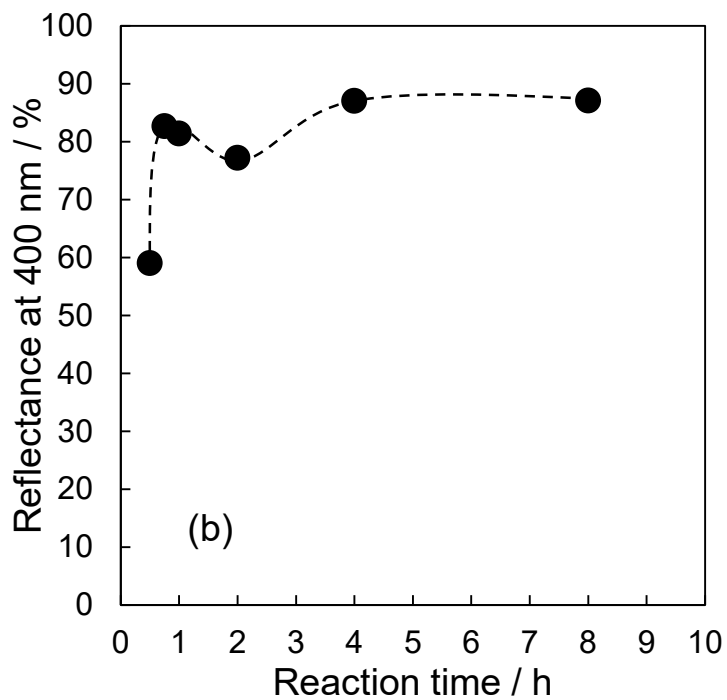
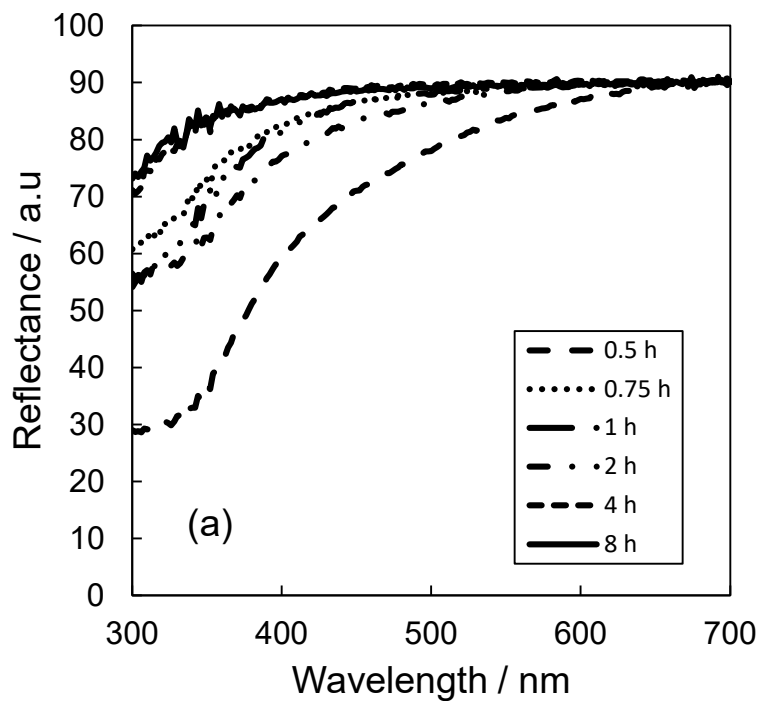


Fig. 1 The UV-Vis spectra of the samples after the treatment with the mixture of CH_3COOH and H_2O_2 .

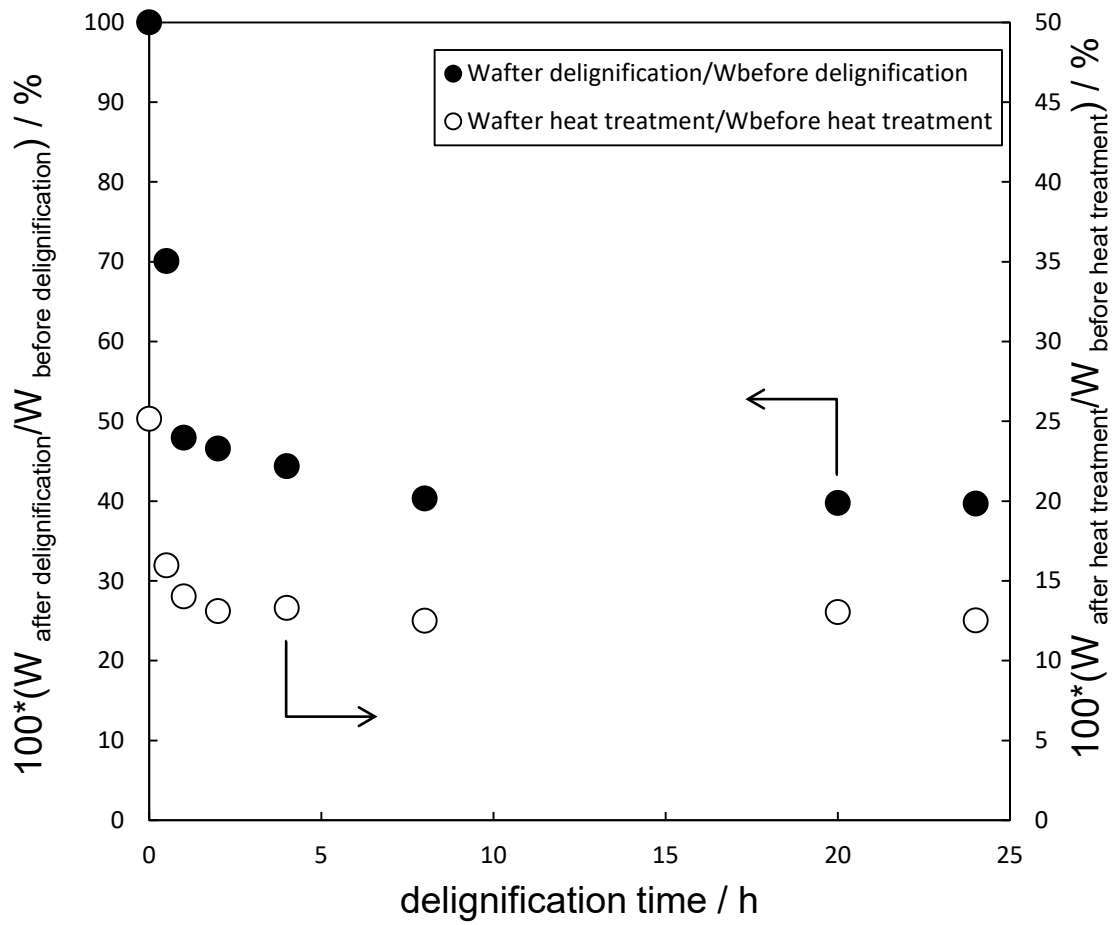


Fig. 2 Treatment time dependences of yields.

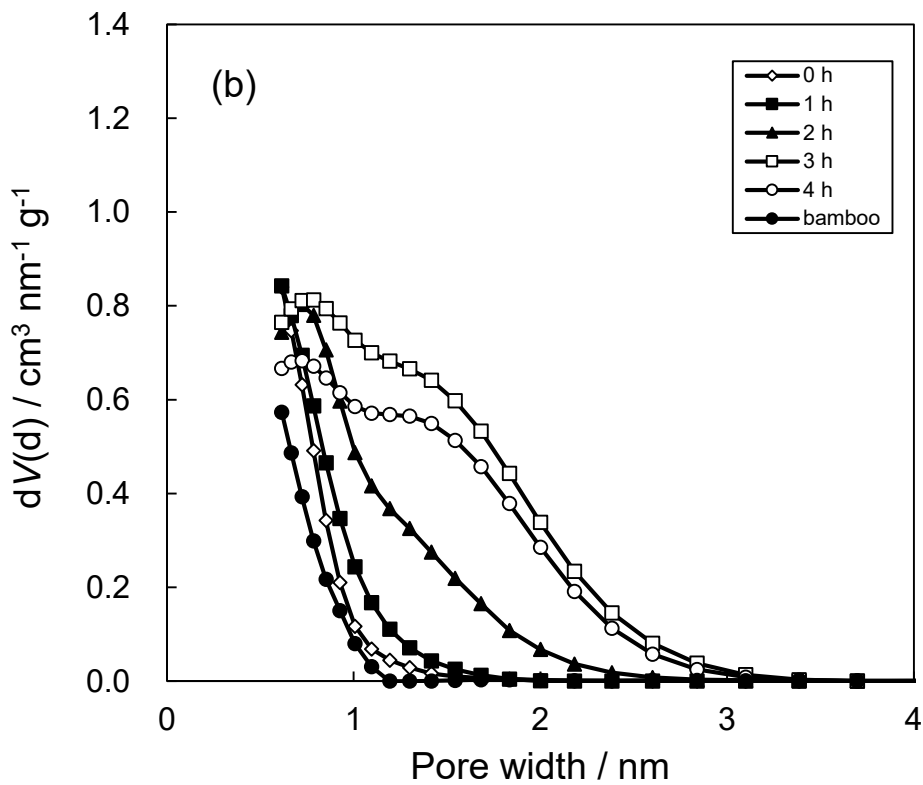
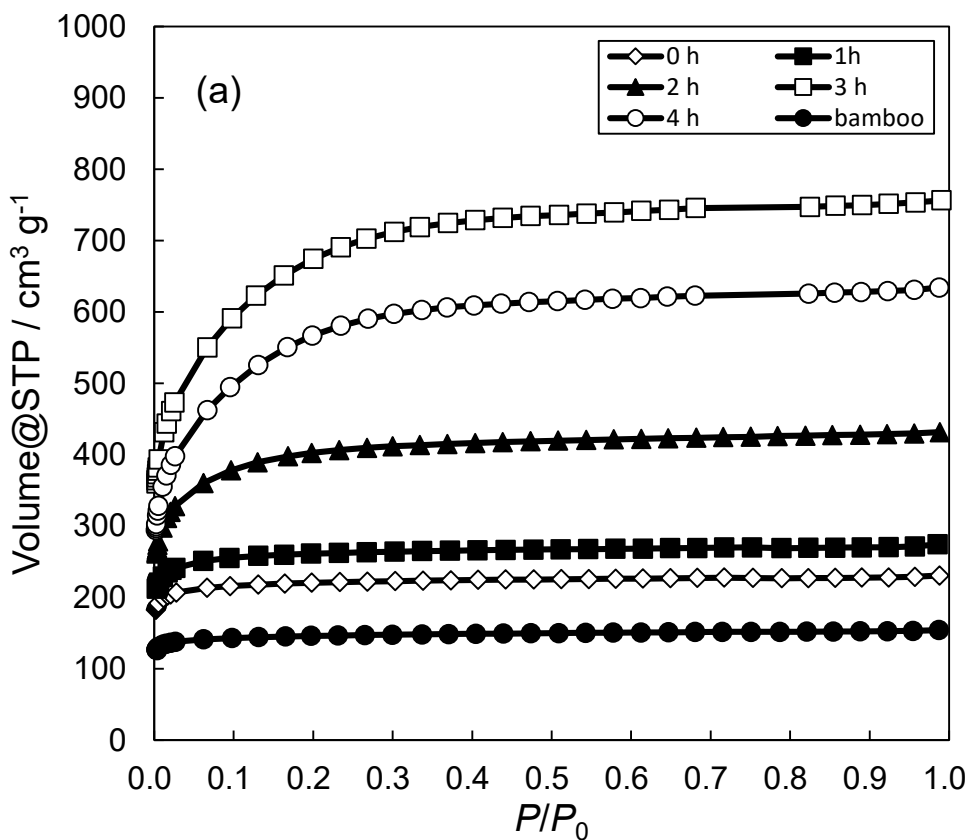


Fig. 3 Experimental results of N_2 adsorption isotherms.

(a), N_2 adsorption isotherms of the samples after the heat treatment;

(b), Pore size distributions of the samples calculated by DFT method.

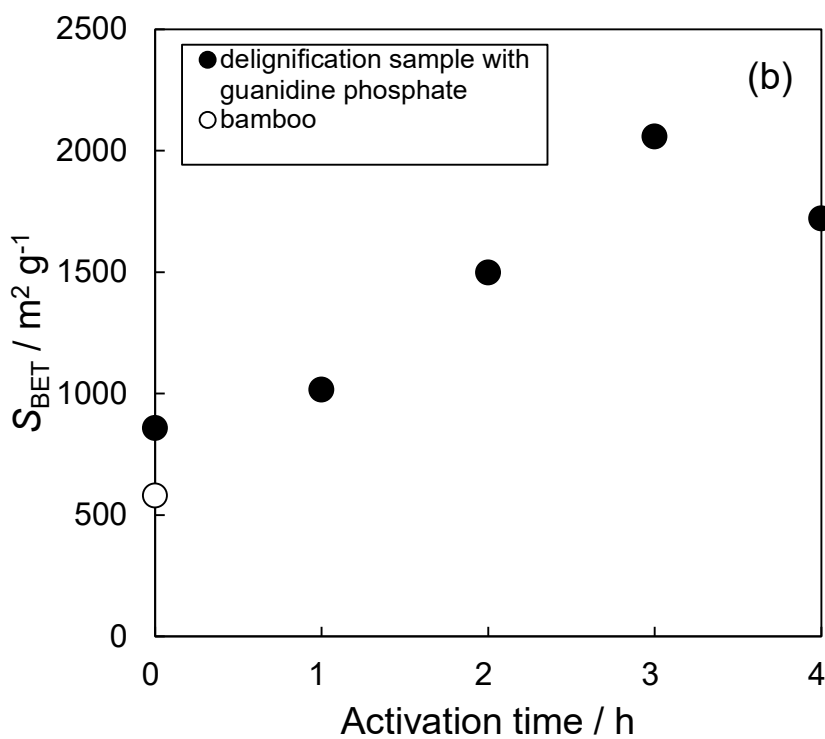
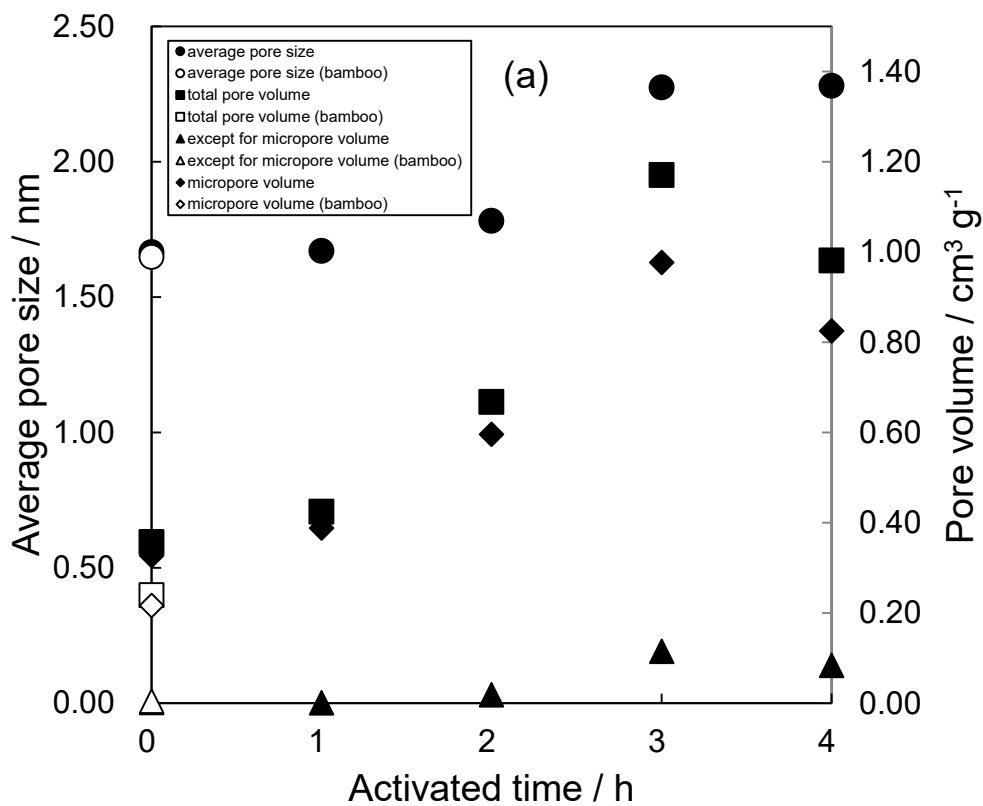


Fig. 4 Estimated results from N_2 adsorption isotherms. (a), Average pore sizes and the pore volumes of the samples; (b), BET specific surface areas of the samples.

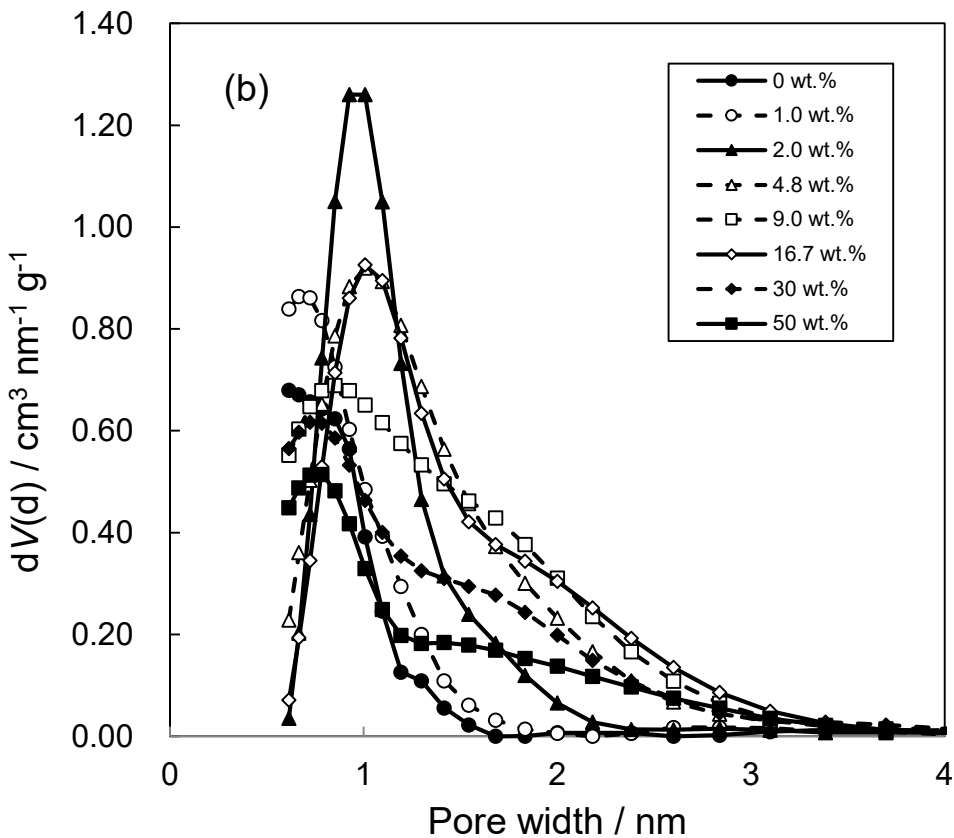
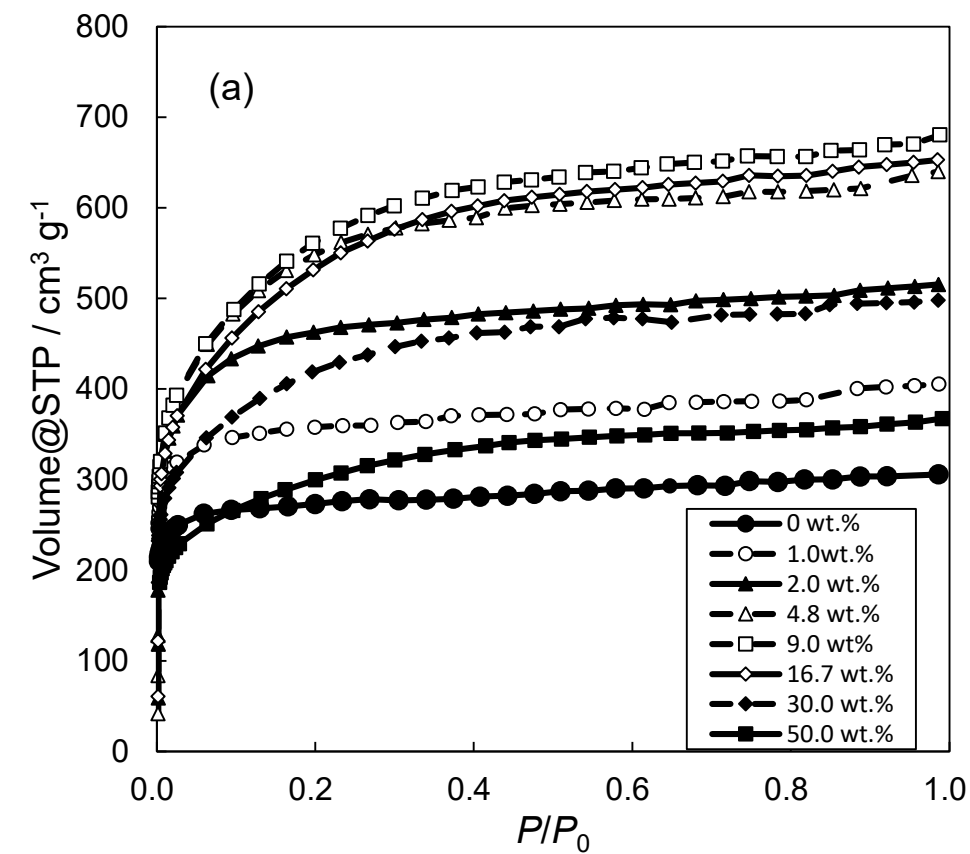


Fig. 5 Experimental results of N_2 adsorption isotherms. (a), N_2 adsorption isotherms of the samples; (b), Pore size distributions of the samples calculated by DFT method.

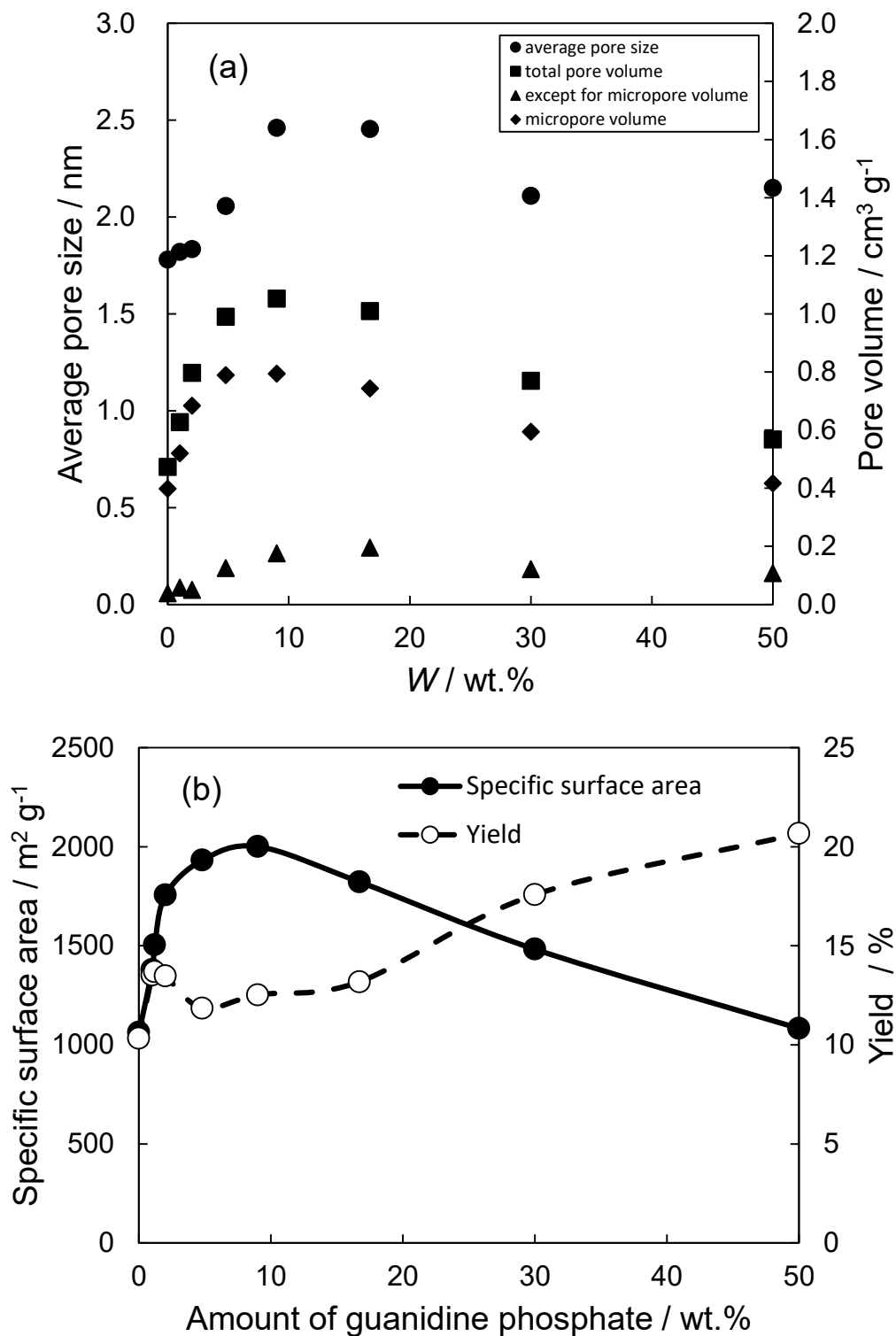


Fig. 6 Estimated results from N_2 adsorption isotherms.

(a), Average pore sizes and the pore volumes of the samples;

(b), BET specific surface areas and the yields of the samples.

*The yield is $(\text{Weight after activation}) / (\text{Weight after delignification})$.

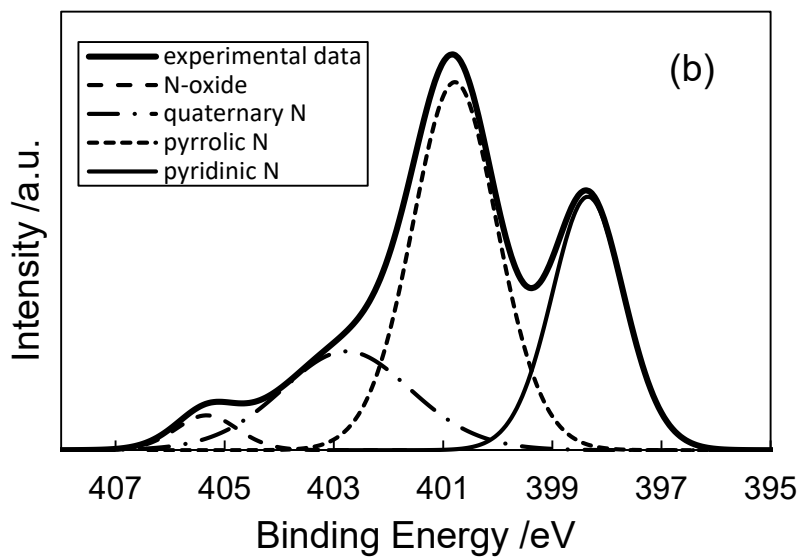
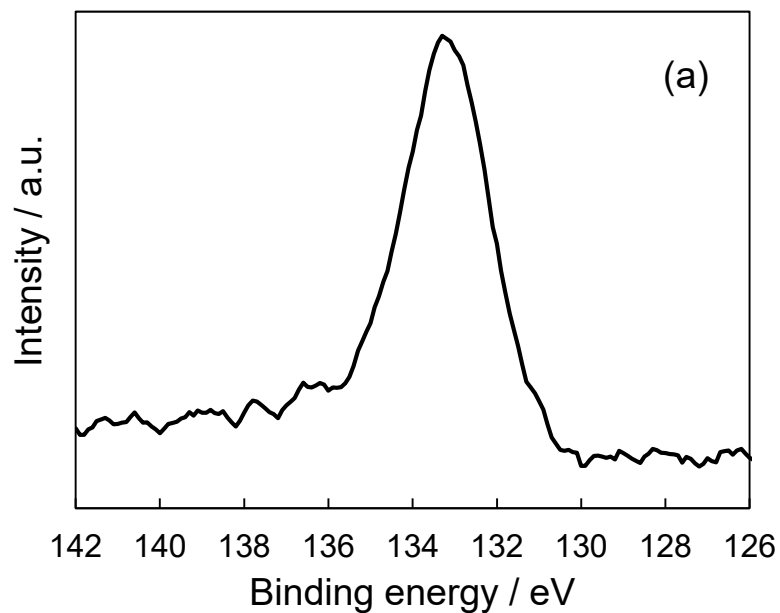


Fig. 7 XPS spectra for the sample of 4.8 wt. %.
(a), P 2p;
(b), N 1s.