



Crystallinity of CVD-treated activated fibers at different temperatures

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キーワード：crystallinity, synchrotron X-ray diffraction, carbon.

1. 背景と研究目的

The present experiment is a continuous work of 202206172.

2. 実験内容

The temperature dependent X-ray diffraction of activated carbon fiber (ACF-1) and CVD-treated activated carbon fiber (ACF-4) is measured.

3. 結果および考察

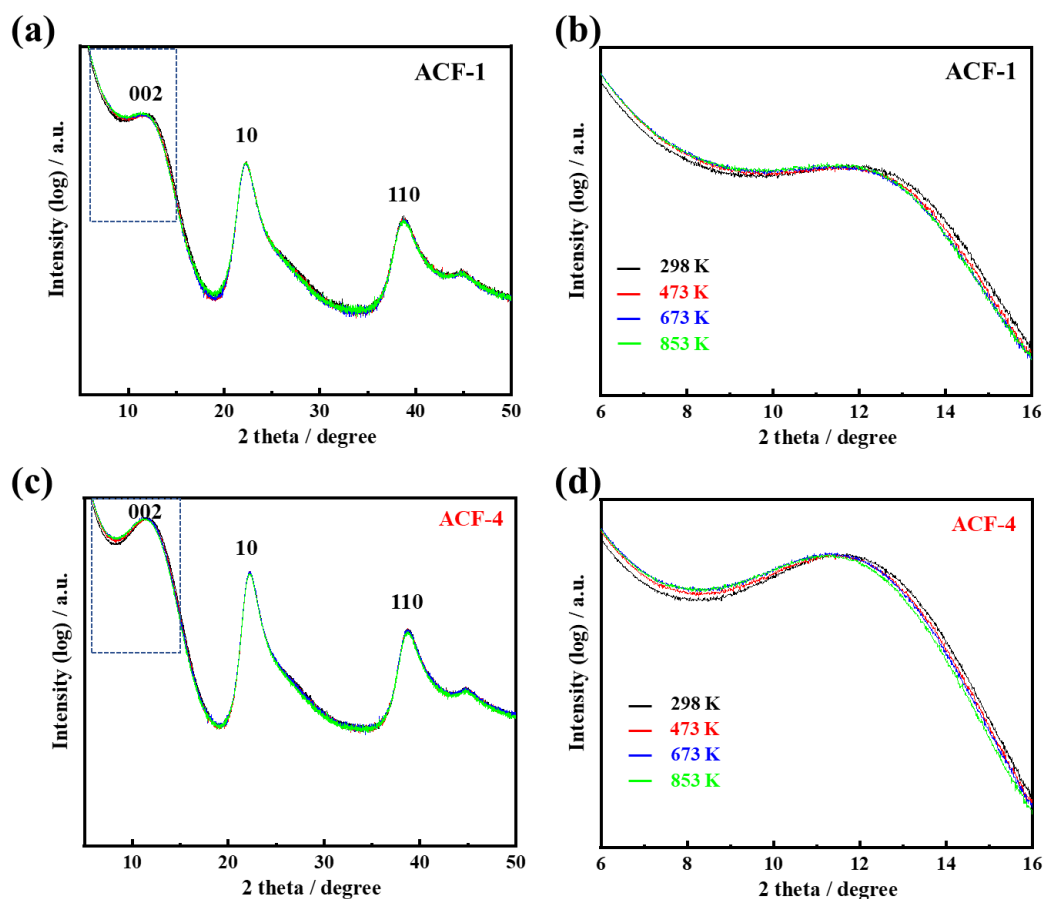


Fig. 1 XRD patterns of activated carbon fiber (ACF-1) and CVD-treated activated carbon fiber (ACF-4).

Figure 1 shows the XRD patterns of activated carbon fiber ACF-1 (a, b) and CVD-treated activated carbon fiber ACF-4 (c, d). Similar to the results obtained at 202206172, heat treatment gives rise to a slight left-shift of 002 peak for both ACF-1 and ACF-4, indicating the spaces between the graphene layers of carbons increase with the temperature.