ABSTRACT OF THE ARTICLE

## PECULIARITIES OF THE ANALYSIS OF THE FORM OF PROFILES X-RAY DIFFRACTION LINES FOR CARBON MATERIALS PART I. DECOMPOSITION INTO COMPONENTS

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The analysis of adequacy of a technique of the analysis of profiles of x-ray diffraction maxima of carbon materials, consisting in decomposition into components appropriate to several phases is carried out. Is established, that the results of decomposition depend on initial assumptions and cannot serve the proof of real existence in carbon materials of various phases. The experimental check of existence of several phases in carbon materials, consisting in supervision of diffraction maxima of the high orders, has also shown absence of metastable phases. The decomposition into components — to turbostratic carbon and graphite is reasonable only at the analysis of diffraction lines of carbon materials, in which catalytic graphitization proceeds.

**Key Words:** carbon materials, crystal structure, X–ray analysis, computer simulation. **Pages** — 6, **figures** — 4, **table** — 2.