



	Experiment title: Struture of nanographictic filaments	Experiment number: 16 01 663
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Shifts:	Local contact(s): Ana Labrador	<i>Received at ESRF:</i>
Names and affiliations of applicants (* indicates experimentalists): Trinitat Pradell . Dpt. Física i Enginyeria Nuclear. ESAB. Universitat Politècnica de Catalunya, Av. Canal Olímpic 08860 Castelldefels. Barcelona Nativitat Salvado. Dpt. d'Enginyeria Química. EPSEVG. Universitat Politècnica de Catalunya, Av. Víctor Balaguer s/n 08800 Vilanova i la Geltrú. Barcelona Salvador Buti. Dpt. d'Enginyeria Química. EPSEVG. Universitat Politècnica de Catalunya, Av. Víctor Balaguer s/n 08800 Vilanova i la Geltrú. Barcelona Jose Calderón. Dpt. Física Aplicada. EPSC. Universitat Politècnica de Catalunya, Av. Canal Olímpic 08860 Castelldefels. Barcelona		

Report:

The figure shows the XRD patterns obtained for the spherulites and for the filaments obtained under an externally applied magnetic field and without magnetic field. The filaments could not be separated and mesured individually due to their small size, but a bunch of them stuck on a tape were measured. The XRD patterns are shown in the figure after the background substraction corresponding to the tape. We measured diffraction spectra including the main graphitic reflections -002, 110 and 004- for both filaments and carbon spheres, which were obtained using the same route without applied magnetic fields. Differences in the relative intensity of the peaks is clearly seen. However, orientation of the filaments would be desirable, and this could be obtained by placing them in a solvent and applying an external matgnetic field. This could be performed although it was not in this first experiment. The results are encouraging, and some more detailed measurements will be considered. Peak shape analysis was also performed giving 2.8 nm for the filaments.

