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Locate light elements by electron diffraction

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Structure determination of submicron-sized porous materials is always a great challenge for widening their industrial application. There are a few reasons for this challenge, such as 1) their big unit cell dimensions cause serious peak overlapping in powder X-ray diffraction (PXRD); 2) typical disordered guest molecules in the big portion of pores lower the resolution; 3) their relatively low stability prevents an easy application of high resolution transmission electron microscope image (HRTEM) and STEM techniques. For those structures with light elements, it is even more difficult. Here we will discuss a few examples which deal with the determination of light elements by electron diffraction.

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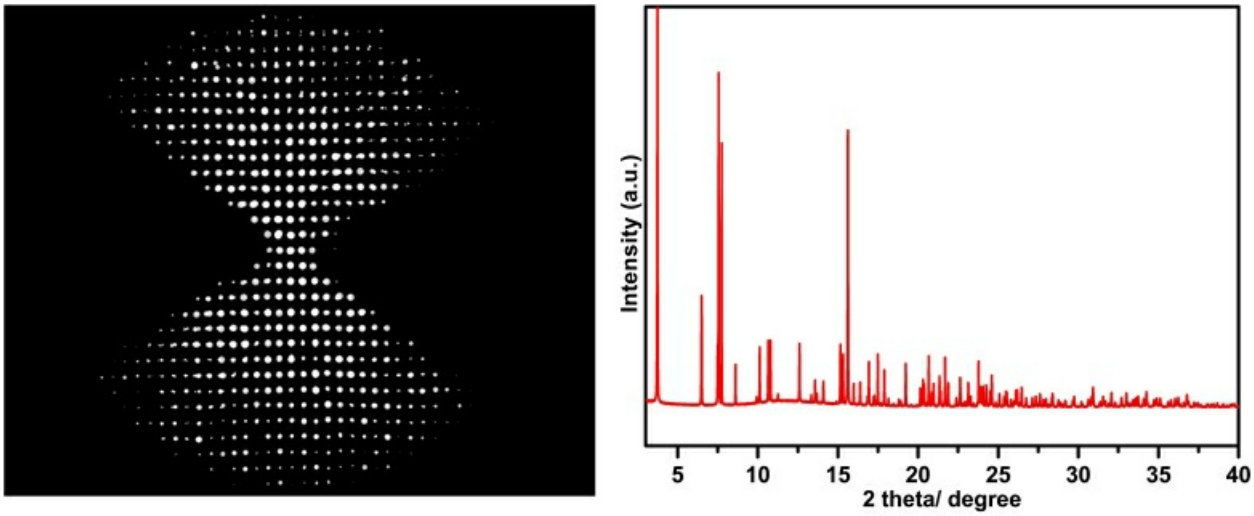

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