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Advanced Structure Analysis of Zeolites by Electron Crystallography **Xiaodong Zou**

Electron crystallography is an important technique complement to X-ray crystallography for structure determination and can be applied to any crystalline materials, where the crystals are too small or the structures too complicated to be solved by X-ray powder diffraction alone, especially for those crystals containing defects. Here I will give a short introduction of electron crystallography¹ and use several examples to demonstrate the power of unknown zeolite structures solved by electron crystallography, including the zeolite catalyst ITQ-39².

References

1. X.D. Zou, S. Hovmöller and P. Oleynikov, "Electron Crystallography", IUCr texts on crystallography, Oxford University Press (2011).
2. T. Willhammar, J.L. Sun, W. Wan, P. Oleynikov, D.L. Zhang, X.D. Zou, M. Moliner, J. Gonzalez, C. Martínez, F. Rey, A. Corma, "Structure and catalytic properties of the most complex intergrown zeolite ITQ-39 determined by electron crystallography", *Nature Chem.* 4 (2012) 188-194.

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