



	Experiment title: Investigation of the active copper sites responsible for high conversion of methane to methanol in Cu-MAZ	Experiment number: 31-01-76
Beamline: BM 31	Date of experiment: from: 11/04/2018 to: 06/04/2018	Date of report: <i>Received at ESRF:</i>
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Abstract of published results :

The isothermal, low-temperature stepwise conversion of methane to methanol over copper-exchanged zeolites eliminates the time-consuming heating and cooling steps of the conventional high temperature activation approach. To better understand differences between the two approaches, a series of zeolites were screened, of which omega zeolite (MAZ) showed superior performance in both the isothermal and conventional approaches.

A. J. Knorpp, M. A. Newton, S. C. M. Mizuno, J. Zhu, H. Mebrate, A. B. Pinar and J. A. Van Bokhoven, *Chem. Commun.*, 2019, **55**, 11794–11797.

