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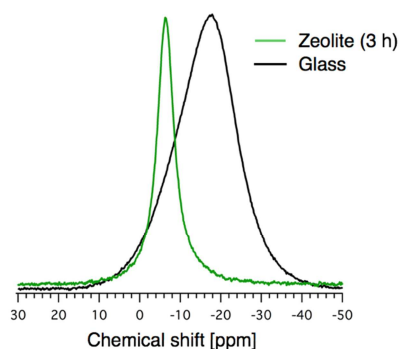
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# Comparative Study of Aluminosilicate Glass and Zeolite Precursors in Terms of Na Environment and Network Structure

Hiroki Yamada<sup>1,2)</sup>, Sohei Sukenaga<sup>3)</sup>, Koji Ohara<sup>2)</sup>, Chokkalingam Anand<sup>1)</sup>, Mariko Ando<sup>4)</sup>, Hiroyuki Shibata<sup>3)</sup>, Tatsuya Okubo<sup>1)\*</sup> and Toru Wakihara<sup>1)\*</sup>

TOC graphic



Non-crystalline aluminosilicate  
with the same composition  
but prepared via different pathways

## Highlights:

Structural comparison of the amorphous precursor for FAU-type zeolites with the glass possessing similar compositions was conducted.

Na environment gradually ordered during the crystallization of FAU-type zeolite, and Na environment in the zeolite precursor prepared in this study possessed more crystalline-like structure than that in the glass.

Comparison of the zeolite precursor and the glass clarified different Na–O distances and ring-distributions.

Löwenstein's rule, prohibiting formation of Al–O–Al bonding in the zeolite crystals, is considered also applicable, to a substantial extent, to the structure of zeolite precursor.

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